Painting in Stone:
The Symbolism of Colored Marbles in the Visual Arts and Literature from Antiquity until the Enlightenment

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ABSTRACT

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Colored marble has been used throughout the Mediterranean as a building material, architectural veneer, sculptural material, even a support for painting since at least the second century BC. This thesis examines the poetics and symbolism of marbles, as a medium more than a material, over many centuries along three predominant lines: as images of substance according to a pre-modern concept of matter and pre-modern notions of geology; marble’s apparent ability to bear light due to its polish and occasional translucency; and the longue durée that colored marbles constituted a form of natural (hence divine) painting. The use of marble in architecture and sculpture, as well as its depiction in painting and its description in literature, is examined from the Augustan era up until the close of the seventeenth century. Examples range from Durham to Samarra, from Ottoman folklore to popular piety in Florida, from Etruscan tomb painting to installation art, but key monuments like Hagia Sophia and the Cornaro Chapel offer case studies for in-depth analysis.
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**Byzantium, Christendom and Islam**

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12.13 Leonardo de Vegni, *Bust of the Saviour* (1784)
Introduction

Colored marble has been used throughout the Mediterranean as a building material, architectural veneer, sculptural material, even a support for painting, without interruption since at least the second century BC. When the quarries were closed for centuries, marbles were recycled from earlier buildings. When marble was not available at all or the cost prohibitive, its image was still so cherished that it was widely simulated in paint, however abstracted.

There have been a great many technical studies of marble, of its quarrying, transportation, and finishing; equally numerous scientific studies of marble provenance. While all such studies are immensely useful resources, they rarely address marble as a representational medium. With few exceptions, when such assessments are made marble is frequently considered an economic or prestige indicator: as marbles are costly materials their use is attributed to the display of power, status, and (from at least the Renaissance) of Magnificence. Such interpretations seem to receive immediate support, conversely, from the moralizing, literary topos that rich, marble revetments were a sign of wanton luxury, and therefore of vanity, or even moral corruption.

Whilst prestigious display was no doubt a motivating factor in many instances, an automatic dependence upon this hermeneutic marginalizes the agency of the artist and the expressive potential of the material, factors that could anyway coexist with a patronal impulse towards ostentation. The reductive category of “display” also risks adequately failing to distinguish one artwork from another, or indeed one social context from another, and loses sight of the fact – equally attested in contemporary accounts,
especially poetry – that even revetment was considered a true art form, not simply a costly accessory. Indeed, there is documentary evidence that patrons would often leave aesthetic decisions to the discretion of the architects and artisans who designed and executed revetments or entire buildings. Likewise, the doctrine of “conspicuous consumption” is also misleadingly exclusive because, for the artist, marble was not simply a raw material to be used up, but a medium that they could evoke a much broader range of associations and responses.

This thesis accordingly explores colored marble as more of a medium than a material. After all, paintings are not simply paint, pigments of varying monetary value. It also attempts to avoid some of the pitfalls of the discipline of Material Culture, in which questions of materiality – meaning not only the material but also the substance it is perceived to embody – are normally displaced by an analysis of artifacts and their social histories. While an iconographical approach may be taken to specific artifacts, whether paintings or buildings, to elucidate the role of marbles within the whole, individual marbles, like colors, cannot be said to have held a “settled signification.” One of the very few exceptions is porphyry, whose identification with imperial papal seems to have remained a constant over centuries, but again one mediated by other associations, most notably blood. This thesis instead examines the poetics and symbolism of marbles diachronically along three predominant lines: as images of substance according to a pre-modern concept of matter and pre-modern notions of geology; marble’s apparent ability to bear light due to its polish and occasional translucency; and the longue durée that colored marbles constituted a form of natural (hence divine) painting.
Preceding all other considerations it is necessary to understand pre-modern notions of the formation of stones and marbles. Today geologists group stones into the categories of Igneous, Sedimentary, and Metamorphic. The science promulgated by Aristotle and Theophrastus had instead taught that marbles were deposits of purified earthy matter suspended in water that percolated down through the earth’s crust to deep reservoirs, where the whole brew was frozen or fired solid by earthly humors. Still other marbles were considered solidifications of the earth’s “exhalations”. What you saw was what you got: a marble like Carystian, of a marine green with wavy veining, was clearly watery; an alabaster, yellowish, transparent and with nebulous markings clearly vaporous and airy. Still others seemed to “trap” light, which was “freed” when they were buffed up to a high polish. Uniting all these theories and perceptions was the Aristotelian principle that the four elements (fire, air, water, earth) were components of all matter and themselves ultimately inter-transmutable because they were permutations of a *prima materia* under the influence of the four principles (hot, dry, cold, moist). In medieval science these permutations could be encouraged by astral influences, a belief that pointed in the direction of sympathetic magic and the influential consonances between stars and sublunary materials, although the theory largely applied to gems and hard stones, and to marbles only by analogy. As influential as these inanimate conceptions was the separate notion of the “living rock,” a rock that was “born” or “engendered,” and could even regenerate itself once “pruned” in the quarries. Marble was organic, a living thing, that grew and flowered. Alternately, it was animalistic as it veins even ran through its fabric. It was such perceptions that allowed marble to be attributed animistic properties as well.
All these long-held ideas, so alien to present scientific classifications and a world
now dominated by the Periodic Table (invented in 1869), had profound effects on the
way in which marbles were used and perceived. In visualizing these pre-modern attitudes,
a helpful direction for an analysis of response is provided in the concept formulated by
Gaston Bachelard (1884-1962), a philosopher of science, of a “Material Imagination.”
Bachelard proposed a cognition of matter (which he likened to a rêverie or “waking
dream”) that preceded intellectual apprehension, in which “direct images of matter” took
precedence over form, facture or function, and he divided these perceptions of substance
under the rubric of the traditional four elements.¹ In terms of artistic production,
Bachelard’s ‘material imagination’ seeks out the more immediate media(tions) between
making and perceiving, and this approach is particularly suggestive for pre-enlightenment
culture, before the distancing of elemental evocations and poetic analogies by the
scientific emphasis on empirical properties. It is also important to remember that we have
now lost much of the intimate contact with materials that existed before the era of
mechanization and mass production, whose standardization has distanced if not erased
the natural origins of the material, while the resulting view of the manufact as a consumer
article has also removed it from the realm of myth to the domain of the market and
product.

Visually, marble was more liminal than any other material because its internal image
was one of chthonic generation but, with polishing, an astral light also emerged on its
surface. It seemed both a rock and a gem, both of this earth and heavenly, an ideal

¹ The following were originally published in the 1930s and 40s in French: Gaston Bachelard, The
Psychoanalysis of Fire (Boston: Beacon Press, 1964); Gaston Bachelard, Water and Dreams: An Essay
on the Imagination of Matter (Dallas: Pegasus Foundation, 1983); Gaston Bachelard, Air and Dreams:
An Essay on the Imagination of Movement (Dallas: Dallas Institute of Humanities and Culture, 1988);
Institute of Humanities and Culture, 2002).
medium that bridged between immanence and transcendence. These qualities recommended their use in churches that wished to be heavens on earth, and palaces where rulers aspired to divinity.

However, the theme of perhaps greatest diffusion and longevity was that veined marbles were a natural form of painting, thanks to their varied palette, brushy veining, and that the fact that they were venues for images “made by chance.” In the dialogue between artist and material, therefore, the material always spoke first. Mind did not yet dominate matter. The (animate) material might be an author, the artist a partner. This conception held many implications for marble use in architectural decoration, a role so far often tacitly consigned to the category of “ornament,” where modernist doctrine tacitly perceives “ornament” to be a subtractable addendum to “structure.”

In pre-modern times, slabs of “natural painting” might be set up in counterpoint to the meticulous inlays of marble marquetry, inviting a comparison between the skill of man and nature – between “natural art” and “artful nature” – both profiting by the comparison. When painters eventually began painting directly onto marble slabs in the sixteenth century, one of the main attractions, as more than one observer remarked, was that because the painter must adapt his composition to the existing veining then “the skill of the artist played with the art of nature.” In the High Baroque, and particularly the work of Bernini, colored marbles would finally enable the invention of an intrinsically “painted” architecture, which, thanks to its dual nature, both painting and stone, spanned between the fictions of sculpture and painting to compose a seamless and total environment. The ultimate unity of such ensembles was not a conjunction of the arts, but the ability of one art to perform as another, eliding, deregulating, even confounding the
boundaries between sculpture and painting, and ultimately subsuming them into mother architecture. In fact, the distinction itself became an idle question in such virtual environments, giving way to an “intervisuality” that guaranteed the autonomy of the representation, and nullified issues of truth or deception.

In large part this dissertation records the way that people spoke about marble, from passing comment to elaborate ekphrasis. But it is neither a dissertation about words nor does it wish to be an exercise in reception history. For a start, words have the power to shape perception as well as record it. Likewise, description and oratory are not adjuncts to vision, nor ex post facto embellishments, but vaunt their own wish to remain in constant dialogue with manufactures. To put this another way, it would be a mistake to relegate texts either to the margin of passive reception or overweening competition. Returning to Bachelard, just as significant as his elemental model he poses for the perception of materials is the fact that his literary sources are drawn almost exclusively from poetry. It is no coincidence that the bulk of the texts adduced in this thesis are poetic. Chronicles, building records, inscriptions, correspondence, and notarial documents are all adduced for reliable historical fact. But the primary texts are ekphrasis and poetry, because the former is a mode of re-enacting the artifact verbally and the latter the hard currency of the imagination, the closest textual parallel to artistic intention, association, and process in the visual arts. Poetry was also most often the medium that sustained aspirations to a meaningful use of marble when any contact with its original practitioners had been severed.
Chapter 1
Roman Architecture and Sculpture: August Marbles and the Lithic Imagination

Four centuries saw imperial Rome the entrepôt for a Mediterranean-wide marble trade that she pioneered. Multicolored marbles flooded in from every quarter, from the furthest frontiers, and on a scale so unprecedented it would not be matched again until the mechanised era. So voluminous, in fact, was this influx that after the demise of the Western Empire (476 AD), the Caput Orbis herself became the quarry of Europe for another millennium.

Scholars now regularly interpret the pursuit of far-flung marbles as an expression of imperial power, and their display as a summation of the geographical extent of Roman dominion. Whatever the merits of this interpretation, discussed below, this chapter will probe the range of ideas associated with marble use beyond blunt power. In particular it will broach a “lithic imagination” that endured right into the modern period. To begin, we will address the role of white marbles, whether Greek or Italian. White marbles preceded the widespread use of colored marbles, and can be considered a base image with which to understand the material as a whole, especially the fundamental luminosity common to all types. Secondly, it will be necessary to plumb the image of assembly implicit in all ashlar construction, which in turn influenced the manufacture and perception of revetment. Thirdly, we will examine the geological images of growth and regeneration that individual marbles conveyed, wherein the devices of man-made assembly paralleled the ligatures of nature.
White Stucco and White Marble Temples

Marble made its proper entrance into Roman architecture with the building of temples, when civic-minded patrons sought more permanent and unworldly materials to accommodate their gods. As Tertullian reminisces, Rome’s primitive altars had simply been piled peat and her earliest sanctuaries, some of which survived the city’s frequent conflagrations into the first century AD, had been fashioned from tufa, wood and terracotta, all of it stuccoed and richly polychromed. But, as Rome’s dominion spread beyond the Italian peninsula to encompass Greece in the early- to mid-second century, she quickly rejected native materials and turned to Hellenic marble temples on which to model her shrines.

These models were predominantly white though with some polychromy. Longstanding debate over the extent of this polychromy has traditionally divided into exclusively opposing camps. Early neo-classical commentators imagined all-white monuments cutting glacial silhouettes against azure skies and this bias was revived during the International Style of early modernism, when ornament stooped to a subtractable addendum from pure structure. Yet this modernist revival was itself a counter-reaction to the mid-nineteenth-century Beaux-Arts theories of Hittorff, Paccard, Kugler, Semper and others, who rejected purist ideals by reconstructing an ancient architecture swamped in decorative paint, leaving no patch of white anywhere. Postmodern debate on


the issue has swung back to the image of extensive polychromy and recently all-white sympathies have been exiled to the camp of “Chromophobia.”³ It is even claimed that the entire Parthenon was originally yellow because an ochre patina has been detected on its columns and walls, although this crust could just as well be the degraded vestige of a translucent skim.⁴ As the Macedonian tombs at Vergina demonstrate, Greek polychromy was actually far more partial and semantically selective than either camp will allow.⁵ The friezes, cornices, eaves, coffers, details of the capitals, and of course sculpture of were painted, and brightly too, but Greek temples were predominantly white and this white was an intrinsic color, not simply a field to be “colored in.”⁶

Thanks to this Greek influence, in Rome too white marble began to rule the exteriors of new temples in the late Republic, and only their details were

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⁴ Ia D. Jenkins and A. P. Middleton, “Paint on the Parthenon Sculptures,” Annual of the British School at Athens 83 (1988): 183-207, esp. 198. Demonstrating a rather British proclivity, Jenkins thinks the patina was meant to “tone down” the brilliance of the stone. Classical texts imply anything but (see below). A compromise hypothesis is that these washes made the temples more golden-hued. It is only known that the frieze field was blue and the metope fields red: Vinzenz Brinkmann, “La sobria policromia delle sculture del Partenone,” in Colori, 151-56.


picked out in color and even gilding. A Pompeian fresco supplies a good example of the ongoing selectivity (fig. 1.1). Only much later, from perhaps about the reign of Nero (54-68 AD) and definitely Domitian (81-96 AD) onwards, was the color-bar broken, white marbles devalued, and the material image of the Greek prototypes discarded in favor of a wide palette of intrinsically colored marbles. Perhaps by this emperor’s reign, the ubiquity of colored stones in private homes had raised the stakes for display in public building (see Chapter 2). Only with Hadrian, in the early second century AD, do we regularly begin to witness temples with columns of fiery granites, purple-streaked Phrygian marble, or vivacious sea-green Carystian, as for example the Temple of Antoninus and Faustina in the Forum Romanum. Nonetheless, white remained the “colour” of choice, and in the mid second century the rhetorician Aelius Aristeides will still rhapsodise that Rome was so crammed with glistening white buildings that it seemed an Alpine landscape of snow-clad slopes and gorges.

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7 Traces of translucent washes, perhaps also sealants or polishes, have been found on the Columns of Trajan (113 AD) and Antoninus (161 AD), the Hadrianeum (145 AD) and the Arch of Constantine (315 AD); Federico Guidobaldi et al., “Monumenti in marmo di epoca imperiale a Roma. Indagine sui residui di trattamenti superficiali,” Bollettino d’arte 24 (1984): 121-34; Alessandra Melucco Vaccaro, “La policromia nell’architettura e nella plastica antica: Stato della questione,” Ricerche di Storia dell’arte 24 (1984): 19-32.

8 Daedalus and Pasiphae, Tablinum of the House of the Antique Hunt (VII, 4, 48); Archaeological Museum, Naples, inv. 8979.

9 The external use of colored marbles on temples is conspicuous from the reign of Hadrian onwards. The Pantheon portico (118-126/8) is an obvious example. Fragments of colossal columns in Aswan granite survive from the Temple of the Deified Trajan (125/128 AD); columns in Carystian marble survive at the Temples of Antoninus and Faustina (141 AD) and of Matidia (119 AD), etc. However, murals in the Villa of Poppeia at Oplontis (before 79 AD) already depict temples with columns of alabaster.

10 “For who upon viewing so many occupied hills or the urbanized pastures of the plains, or a territory so extensive brought together into the name of a single city, could accurately observe all these things? […] What Homer said of snow, that it poured over and covered, ‘the high mountain peaks and the summits of the headlands and the fields of asphodel and the rich works of men; and it poured over,’ he says, ‘the harbors and the beaches of the gray sea,’ such this city also
But before all this, before even white marbles were imported into Rome, coatings of brilliant stucco impersonated them, lime mixed with marble dust, overlaying humbler masonry of travertine or peperino. This immaculate disguise was assumed in classical Greece, probably in Etruria too, and is attested in Rome by at least 179 BC, when the censors Aemilius Lepidus and M. Fulvius Nobilior “embellished the temple of Jupiter Capitoline and the columns around it in white stucco.” These stucco coatings often camouflaged mixed materials or construction phases, and came in handy when a temple was rebuilt after a fire or it was found necessary to raise the ground level (and hence the column bases), or just update its ornament. A good example is “Temple A” in the sacred precinct at Largo Argentina, Rome, progressively patched and resurfaced from the mid-first century BC to c. 80 AD (fig. 1.2). Whatever its troubled past, a coat of stucco ensured that the shrine always looked new. The use of these marble-ized coatings also continued well into the empire, as late as the mid-fourth century AD, when the Emperor Julian still advised this expedient so that damaged temples would appear newly whole and thus piety shine through splendor.

11 Opus marmoratum: Vitr. De Arch. 7.3.6 & 7.6.1; Varro Rust. 1.59.3; Pliny HN 36.55.176-7.

12 Livy 40.51.2-6. In Greece, to pick one example, stucco veneer is still visible on the column drums of the Temple Zeus at Olympia (c. 450/440 BC).

The subjugation of Greece that initiated the Roman craze for white marble temples began with the Second Macedonian War (200-197 BC) and was effectively complete with the conquest of Macedon and the destruction of Corinth in 146 and 143 BC respectively. Greece’s quarries were among the prizes and when the conquering hero, Metellus, returned to Rome he built its first permanent marble temple, dedicated to Jupiter Stator. The architect, Hermodorus of Salamis, came from Greece as almost certainly did the marble and the masons to carve it. A pendant, dedicated to Juno Regina, soon followed but both temples now survive only in fragments of later restorations. So the very Hellenic tholos near the Tiber must vouch for the new trend in Roman material culture (fig. 1.3). It has been variously dated to between 100/90 and c. 142 BC, and in the latter case it has even be argued that the temple was built by L. Mummius Achaicus, the conqueror of Achaea and despoiler of Corinth. It was built out of Pentelic marble, quarried near Athens, even though a home-

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14 To repair the fire-damaged Temple of Apollo, Antioch: “Above all set up the pillars of the temple... and if there are not enough even from that source, let us use cheaper ones meanwhile, of baked brick and plaster, encasing them in marble-stucco [χόντας τῶς ἐξωθεὶν μαρμαρόσιοντες], for you are well aware that piety is to be preferred to [personal] splendor, and, when put into practice, secures much pleasure for the righteous in this life”: Julian. Ep. 29; Loeb ed., trans. W. C. Wright.


grown variety of white marble, *Marmor Lunense* (Carrara), had been readily available in central Italy since the archaic period.\(^{17}\) Thanks to its fine, crystalline grain, Pentelic surpassed Carrara marble in its brilliance and relative translucency and this characteristic ensured that, despite the expense, it would remain a marble of choice long after Carrara had become a busy quarry.\(^{18}\)

**White Flesh: *Albus* and *Candidus***

In 31 BC, the young Octavian defeated his last rival, Mark Anthony, at Actium, next changed his name to *Augustus*, and then in stealthy steps substituted the republican commonwealth with an imperial regime. Egypt was the first new province to be annexed, but within three decades the Empire had come to span lands between the English Channel and Parthian frontier, and from the Rhine to Mauritania. Under Augustus, the variety of marbles prospected within these stabilized frontiers also enlarged dramatically, yet white remained the predominant color for temples.\(^{19}\)

White, of course, almost always symbolizes purity throughout the western classical tradition. Thus Cicero, following Plato, pronounced that white was the

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\(^{18}\) The Temple of Castor and Pollux (6 AD), Arch of Titus (81-82 AD) and Arch of Septimius Severus (203/212 AD) in the Forum Romanum, and the white marbles of the Pantheon are, for example, all Pentelic.

color most suitable to a God. People wore white at funerals, for example. It also epitomized light. It is no coincidence that Latin lucere (to shine) was derived from the Greek λευκὸς (white) and that Romance and Germanic derivatives (e.g. luce, licht, light, even lumière) find their Indo-European roots (*leuq/*louq-) in words that unite brightness with whiteness. Thus, in Homer’s eyes white epitomized solarity: “As white as the sun,” he says, precisely because its white heat signified the reverberation of a brilliant essence.

It is this pro-active whiteness that arguably determined the materials of white temples and white statues, and the best evidence comes from the acrolithic statuary known to Homer’s age, and which enjoyed continued popularity in the ivory-and-gold effigies of classical Greece. The paragons of such chryselephantine statuary, Phidias’ statues of Athena in the Parthenon and of Zeus at Olympia (5.31), have crumbled to dust, but we glimpse past glories from the modern replica of Athena Parthenopos in Nashville, Tennessee (fig. 1.4) as

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20 “color autem albus praecipue decorus deo est”: Cic. De leg. 2.18 quoting Plato, Leges 12. 955 E-956B.


well as fragments of real cult statues unearthed in Lazio but possibly from a temple in Rome (fig. 1.5).

In more exposed situations hardier materials simulated the effects of these precious but fragile confections. Thus, on the metopes of the Heraion at Selinunte, Sicily (460-450 BC), inserts of Parian marble picked out the flesh of “white-armed Hera” and all other female figures within slabs of a local, calcareous limestone (fig. 1.6). This juxtaposition of swarthy Zeus and pale Hera recalls a verse once inscribed on a long-lost statue: “Praxiteles formed Danae and the cloaks of the Nymphs / in Parian marble, and me, Pan, of Pentelic rock.” Moreover, on the Selinunte reliefs, originally the limestone matrix was largely invisible beneath dense polychromy, such that the marble would have scintillated all the more under the Mediterranean sun.

The taste for replicating chryselephantine statuary in mixed marbles continued unabated through the Hellenistic era into the Roman world. The Parian limbs of the statue of Fortuna Huiusce Dies attributed to Scopas Minor (c. 100-95 BC) survive from the eponymous temple in Largo Argentina, Rome (figs. 1.7). So does a splendid Minerva found in 1923, again in Rome (fig. 1.8). The


25 Anth. Pal. 6.317: Πραξιτέλης ἐπλάσε δανάην καὶ φάρεσα Νυμφῶν / λύγδια, καὶ πέτρης Παιν’ ἐμὲ Πεντελείχης (Pentelic is flecked with grey).

26 Such “material editing” persists in ivory relief until the Byzantine period (i.e. the flesh parts of ivory reliefs were masked when over-painted): Carolyn L. Connor, The Color of Ivory: Polychromy on Byzantine Ivories (Princeton NJ: Princeton University Press, 1998).
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head was missing at discovery and, when displayed, was completed with a plaster cast of the appropriate type. Unfortunately, in their attempts to make the face as true-to-life as the draperies, the restorers painted the cast a pancake pink, ignoring the glaring evidence of the white foot not to mention the fact that cult statues are, in all senses, larger-than-life. They are emissaries of the divine presence that can be possessed by the god at will, that hear supplicants, can get up and walk off, and command with their gaze alone.29 Thus, in the mid-second century, Lucian of Samosata initiates a longue durée, when he says the best thing about the cult statue of the Syrian goddess is that her eyes follow you around the room.30 Some might snigger up their sleeves at overhearing the same comment in


30 “There is also another marvel in this image: if you stand over against it, it looks you in the face, and as you pass it the gaze still follows you, and if another approaching from a different quarter looks at it, he is similarly affected” (καὶ ἄλλο θεωμαστὸν ἔστιν ἐν τῷ ξοάφῳ, ἦν ἐστειλαίος ἄντιος ἐσοφής, εἰς σὲ ὁμι καὶ μεταβαίνοντι τὸ βλέμμα ἀκολουθεῖ: καὶ ἦν ἄλλος ἔτερῳ ἱστορέῃ, τι καὶ ἐς ἐκείνον ἐκπελάς). Dea Dea Syria 32; Matthew D. Macleod, ed., Luciani opera, vol. Tomus III, Libelli 44-68 (Oxford: Clarendon Press, 1980), 17; trans. Herbert A. Strong and John Garstang, eds., The Syrian goddess (London: Constable, 1913), 73.
a gallery today, but Lucian means that the goddess seems so alive that one cannot escape her gaze.\textsuperscript{31}

The white marbles of the Fortuna and Minerva translated the ivory of the earlier cult images, and both materials obviously represented an attribute of femininity, untanned skin. Thus, in classical poetry white marble (especially Parian) became a favored metonym for the porcelain complexion, the alabaster ankle or the ivory neck. Horace tells us (ironically) that, “the sparkle of stunning Glycera, purer than Parian marble, sets me on fire” and, in Petronius, Encolpius claims that the flesh of his adolescent lover “puts Parian marble in the shade.”\textsuperscript{32} The equivalence is seamless in Gérôme’s Pygmalion and Galatea (fig. 1.9).

But when such brilliant media composed the bloodless effigies of divinities they exceeded the mimesis of human flesh alone. One has only to consider the story of Pelops, and the Osiris myth in which it originated, to understand that these lustrous materials could summon the supernatural tissue of those unaging gods who feasted on nectar and pure ambrosia – food that was unavailable to humans, and whose original meaning was “uncontaminated by blood.”\textsuperscript{33} According to myth, Tantalus had butchered his son Pelops and served him up to the gods as a meal to test them, though only grief-stricken Demeter

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absentmindedly ate part of his shoulder. Thereafter, when the outraged gods recomposed Pelops’ body and restored him to life, they substituted the missing flesh with a shoulder in ivory.\textsuperscript{34} Pliny even says that when he visited Edlis, he saw this shoulder blade displayed there as a relic. The irony, and one that demonstrates the symmetry between rarefied materials and immortal flesh, is that he was probably shown a fragment of an earlier chryselephantine statue.\textsuperscript{35}

It is equally important to understand that the Romans perceived that there were two types of whiteness. In the words of the fourth-century grammarian, Servius, “it is one thing to be shining (\textit{candidus}), that is to be bathed in a certain shining light, and another to be white (\textit{albus}), which is to approach pallor.”\textsuperscript{36} Pallor, it bears noting, does not mean paleness but the absence of color. Virgil, for example, only uses \textit{pallidus} to describe individuals so terrified that they are blanched, drained of color. Select sculpture shows how the distinction between \textit{albus} and \textit{candidus} dictated practice, and how such sensibilities clarify the material preoccupations of white temples as well.


\textsuperscript{35} Pliny \textit{HN} 28.34. This relic had disappeared by the time Pausianias visited the sanctuary, c. 174/5 AD (Paus. 5.13.4).

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The best example is the famous statue of Augustus from the Via Labicana (after 14 AD? figs. 1.10-11).\(^{37}\) He is portrayed as a supreme religious personality, the chief priest or Pontifex Maximus.\(^{38}\) He is sacrificing, his head covered in deference to the god. While the statue is white, it is made from two different marbles, a fine-grained Greek marble (probably Parian) for his visible flesh and a coarser Italian variant (probably Carrara) for his toga. The usual explanations, which tempt incredulity, are either that the portrait was updated later or that blocks of such high-grade Parian marble were not available in large enough dimensions to make a whole statue. Instead, the distinction is entirely premeditated and appropriates the religious material vocabulary of the cult statuary described earlier.

In fact, such combinations of fine and finer white marbles had already figured in Hellenistic statues of women and goddesses, like the Getty Aphrodite (c. 425-400 BC; fig. 1.12) and the Antium Girl.\(^{39}\) These effigies followed the cues of chryselephantine sculpture and so did the Via Labicana Augustus. But for a

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sculptor to suggest that Augustus had effeminate, lily-white skin would have been a hanging offence and these material juxtapositions instead announce that the emperor’s flesh is so radiant that he is *whiter than white*.

Just how white becomes clear from the toga that envelops him. These garments were themselves whitened with fuller’s earth, chalk and sometimes marble dust as well. They weighed a ton and were no longer worn for comfort but to accommodate tradition. They were representational clothes and, in fact, Augustus enforced their use. The most famous of these brilliant togas, the *toga candida* worn by those seeking office, was positively loaded with marble-dust so that the candidate’s blameless purity would be evident to all. Augustus instead wears the *toga praetextata*, whose broad purple hem was probably painted on the statue, as the pigment seems to have washed down onto its base. But otherwise it was of the finest, whitest linen because Augustus’ priestly robes must gleam spotlessly so that his purity and divine office shine about him. In fact, the Romans never stopped being aware of such associations, for three hundred and fifty years later, in 376 AD, the orator Themistius will triply pun on the meaning of white when he invites the Emperor Gratian to put on the white toga, to celebrate his white (serene) reign and observe the white (propitious) days.

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41 “Toga candida eadem cretata, in qua candidati... addita creta, quo candidior insigniorque esset” (Isid. *Etym.* 19.24.3).

even in Christ’s Transfiguration His seamless robes are described as “shining, excessively white, like snow, whiter than any fuller on earth could make them” (Mark 9:2). This event, as we see it depicted for example in Fra Angelico’s white-on-white version (fig. 1.13), signified, as he would have known, that Christ had reverted from lumen de lumine (the “light of light”) to lux, the supernal and uncreated light so brilliant it is blinding and unintelligible (see Chapter 3).

But in the Via Labicana Augustus it is not the toga that glows but the emperor’s flesh, thanks to the sugary grain of Parian marble. While Carrara marble gleams white, since Parian has large shiny calcite crystals and is partially translucent in sunlight it glows warmly and seems to emit light. In fact, on occasion Apollo himself went under the soubriquet of “The Parian” and his temples were sometimes faced with this statuary marble as well. The stone that simulates the emperor’s flesh is not just Parian marble, but the most refined quality called Lychnites (λυχνίτης, “lamp-like”). It did not earn this name because, as Pliny disingenuously explains, it was quarried in tunnels by lamplight, but rather, as the fifth-century poet Nonnus intones, “it turns its

42 “Now the time has arrived for you to don the white robe to celebrate the serene reign and the days of bliss” (μετένθενε οὖν ἦλθεν τὴν λευκὴν ἑσθήκα ἐπὶ λευκὴ βασιλεία καὶ λευκαῖς ἤμοραῖς): Them. Orat. 13.179a; Wilhelm Dindorf, ed., Themistii Orationes (Hildesheim: Georg Olms, 1961), 219. The passage plays on the three associations of leukoṿ: the color of the festive robe (Plut. Amat. 771D); white as “serene” (Hom. Od. 10.94; Plut. De fac. 934F); white as “propitious,” meaning feastdays (Zenob. 6.13; Plut. Per. 27)

Presumably because his cult statue at Delphi was of gleaming Parian: e.g Poseidippos (c. 225/200 BC) calls a temple of Apollo “the snow-white house of the Parian” (τὴν νυμφώτην οἰκία τοῦ Παρίου): Denys L. Page, Greek Literary Papyri, 2 vols. (London: William Heinemann Ltd, 1942): 1: 472-73. Apollo was born on Delos, his most important sanctuary was at Delphi and there is otherwise no obvious connection with Paros. Thus, the Athenian Alcmaeonids built the new temple of Apollo “more splendidly than the plans of the architect showed [and] whereas the building was to be of local stone, they carried out the frontal elevation in Parian marble” (548 BC; Hdt. 5.62). Similarly, Parian marble faced the temple of Apollo Sosianus in Rome: Matilda De Nuccio et al., “The Use of Proconnesian Marble in the Architectural Decoration of the Bellona Temple in Rome,” in Interdisciplinary Studies on Ancient Stone, ed. Lorenzo Lazzarini (Padua: Bottega d’Erasmo, 2002), 294.
glistening gleams in the faces of men.” To Roman eyes, such marbles could therefore epitomize the transparency of light. For us light is no more transparent than water can be said to be permeable, but for the ancients, light was not a wavelength but an atomic medium with a bustling physicality. Lucretius even describes spontaneous thought in the same, corporeal terms. The quintessence of light then is not alien to substance, and we may accustom ourselves to the idea of materials really embodying light.

The two stones of the Via Labicana Augustus therefore distinguish between a relative and an absolute white, between *albus* and *candidus*, between pallor and what we might call a “transubstantial” white. In Italian the distinction between *albo* and *candido* remains intact. But *candidus* has an ethical meaning as well, one that is preserved in English: to be candid is to be transparent in one’s meaning; to speak candidly is to tell the unvarnished truth. So the candid marble of Augustus’ body also manifests his moral probity. He is high-minded and “pectore candidus,” pure of heart.

Yet he is also god-like. It is immaterial whether this portrait was carved before or after his death. Posthumously it would represent the luminosity of *Divus Augustus*, who like his foster-father and all apotheosized emperors was

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44 *Dion*. 18.74-75. While it is true that quarries of Lychnites were were mine-shafted, not open-cast, in Nonnos and the *Orphica* Lychnites is a brilliant gem so-called because of its similarity to flame: Robert Halleux and Jacques Schamp, eds., *Les Lapidaires Grecs* (Paris: Les Belles Lettres, 1985), 96, 305. Lucian of Samosata says that this gem illuminated an entire temple (*De Dea Syria* 32). The root of *λυχνή*, *λύχνος*, is cognate with *λευκός*.


destined to become a star in the firmament. And Augustus’ divinity had begun in life, when he had ushered in a new golden age under the aegis of his patron, the sun god Apollo. His auto-identification with this deity was so consuming that, according to Suetonius, he was “profoundly pleased if anyone at whom he looked promptly lowered his head as if dazzled by the rays of the sun.” And the court poet Horace, always eager to please, calls him the “beautiful sun” whose “countenance like spring shines upon the people.” The intended effect of the Via Labicana Augustus can be further gauged from its twin, the Prima Porta Augustus (fig. 1.14). Augustus’ bare feet may suggest he is divinised, but so
does the stone, for this is the largest statue in Parian lychnites ever made. An important recent exhibition has restored to us, in an alarming manner, its original polychromy (fig. 1.15). His eyes, hair, insignia and the allegory of conquest on his cuirass are all carefully described in pigment. But under all this applied colour, his body is transfigured, he has become candidus, he shines like the sun, and his divinity would have been, so to speak, blindingly obvious.

**Niger and Ater**

Just as albus differed from candidus there were two words in Latin for black, niger and ater.52 Niger was to ater, as ebony is to charcoal. Niger indicated a bottomless black of plentiful reflections, but ater defined opaque obscurity and shadow and was therefore woefully synonymous with the passing of life. When Annia Regilla, wife of the magnate-cum-rhetorician Herodes Atticus and the very “light of his home,” died a sudden and premature death around 160 AD, her husband’s grief was so great that he “altered the appearance of his house in her honor by making the paintings and decorations of the rooms black by means of hangings, dyes, and Lesbian marble, which is a gloomy and dark stone.”53 Herodes’ decision to wreathe his house in permanent mourning was all the more

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52 André, Étude: 43-52 (ater); 52-59 (niger); 60-63 (furvis, piceus, aquilus, coracinus).

poignant because he had habitually embellished Greek cities with “immortal monuments” in brilliant, Pentelic marble.\textsuperscript{54} His domestic denial of color and light advertised a turning away from the world. For similar reasons, the sculptor Silanion had added silver to bronze to give his statue of Jocasta a pale cast, as though she were consuming away in death.\textsuperscript{55} Likewise, when Philosophy visits Boethius in his prison cell in the early sixth century, he will recognize her by her robe “shrouded by a kind of darkness of forgotten years, like a smoke-blackened family statue in the atrium.” Philosophy assumes the same introspectively grey garment in a slightly earlier Greek \textit{ekphrasis}.\textsuperscript{56}

The importance of all these distinctions, between a black that carried light and one that had been leeched of it, between a white that was brighter than white and one that was colorless, lay in their rarefaction and light quotients. Gold, ivory and other shimmering materials seemed the heavenly stuff that could absorb the divine essence into the statue. Gold, ivory and other shimmering materials were not, therefore, simply the tokens of extravagance but the heavenly stuff that could absorb the divine essence into the statue. In the eyes of the faithful, they brought a piece of heaven to earth as much as those cult effigies

\begin{footnotes}
\item[54] Paus. 1.19.6 (Stadium, Athens); 7.20.6 (Odeum, Athens); 10.32.1 (Stadium, Delphi). In addition, he dedicated a nymphaeum at Olympia, an Odeum and court at Corinth, and possibly another fountain at Peirene: Abraldes, \textit{“Pentelethen”}, 65-67, 193-207; 69-70, 335-339; 69, 317-320. Some of these buildings did incorporate other marbles (114-115). Although the Athenian Odeum was built in Anna Regilla’s memory it does not share the introversion of Herodes’ own home.
\item[55] Plut. \textit{Quaest. conv.} 5.1.2.
\item[56] “\textit{Vestes erant… veluti fumosas imagines solet, caligo quaedam neglectae vestustatis obduxerat}” (Boeth. \textit{Consol.} 1.1; c. 525/6 AD). The word \textit{“Atrium”} was itself derived from the fact that such rooms were originally blackened by fumes from the family hearth. Asterius of Amaseia, Hom. XI (\textit{Ekphrasis of Euphemia’s martyrdom}): \textit{“Εστησαν δὲ ἡ παρθένοις φαυλὶ τὴν καὶ ἱματία τῆς φιλοσοφίας σημαίνοντα” (“The virgin stands dressed in a grey tunic and himation showing thereby that she is a philosopher”); C. Datema, ed., \textit{Asterius of Amasea. Homilies I-XIV} (Leiden: E. J. Brill, 1970), 154. Asterius (330/335-420/425 AD) probably delivered the homilies in the 380/390s AD.
\end{footnotes}
that were said to have fallen from the skies themselves. As Lucian summarizes, “those who enter the temple see not ivory from India nor gold from Thrace but the real son of Kronos and Rhea translated to earth by Phidias.”

Solar, Lunar and Snowy Marbles

White marble had evidently joined that family of glittering and lustrous materials – ivory, gold, silver, coppery bronze, and semi-precious stones – that surpassed the mundane and outfitted heavenly places in literature from Homer’s description of Alcinous’ palace on Phaeacia to Ovid’s palace of the Sun:

The Palace of the Sun was raised high on towering columns, And shimmered with the glint of gold and fiery bronze; Its high pediment was covered with shining ivory, While its twin doors shone bright with silver. The workmanship was even more superb than the materials.

Under Augustus, the white marbles of the new temples gleamed as bright as gold and all Rome now seemed golden. When he came to build his own

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57 Lucian Sacr. 11: οἱ παρισόντες εἰς τὸν νέαν οὐτε τὸν ἐξ Ἰνδῶν ἑλέφαντα ἐτὶ οὖνται ὃ δὲν οὕτω τὸ ἐκ τῆς Θάξες μεταλλευθέν χρυσίου ἄλλ᾽ αὐτὸν τὸν Κρόνου καὶ Ῥεάς, εἰς τὴν γῆν ὑπὸ Φειδίου μετεκισμένον. Alberti will also comment that “when statues of deities are composed of the noblest and rarest materials, especially bronze or marble, they bear a much stronger resemblance to the divine nature than does painting” (Alberti De Re A. 7.17.161).

58 “There was a gleam as of sun or moon over the high-roofed house of great-hearted Alcinous. Of bronze were the walls that stretched this way and that from the threshold to the innermost chamber, surmounted by a cornice of cyanus [enamel or glass paste imitating lapis lazuli]. Golden were the doors that shut in the well-built house, and doorposts of silver were set in a threshold of bronze. Of silver was the lintel above, and of gold the handle” (Od. 7.81ff.; Loeb ed., trans. A. T. Murray).


60 Gros, Aurea Templ: 41-42, citing Prop. 2.31.1-2, 4.1.5; Ov. Ars Am. 3.9.43-44; Ov. Fast. 1.223-224. Ov. Ars Am. 3.113: “nunc aurea Roma est.” Gros rightly argues that the trope refers to brilliance.
Temple of Apollo on the Palatine (36-28 BC), right next to his house and overshadowing the relic of Romulus’ wattle hut, its material program anticipated Ovid’s verses above almost to the letter:

Phoebus’ golden portico has been opened by mighty Caesar.
The whole of it has been planned as a promenade of Punic columns […]
Then in the middle rose the temple of dazzling marble,
Dearer to Phoebus even than his Ortygian home:
Upon the pediment of this stood the chariot of the Sun,
And the doors were noble works in Libyan ivory.

This may have been the inspiration for the temple depicted in the “Vatican Vergil” (Vat. lat. 3225, fol. 45v), a manuscript made in Rome around 400 AD (fig. 1.15b). Around this incandescent temple stretched a ring of columns in Punic marble (i.e. Numidian, giallo antico) like the spokes of Helios’ halo. Like the Via Labicana Augustus, the temple shone all the brighter for this frame of gold-colored stones. The ensemble recalled the complexion of Augustus’ semi-divine per se rather than gold in particular. According to the Res Gestae Divi Augusti, Augustus restored 82 temples in 28 BC alone. Most of these would have received a new coat of stucco.

61 Prop. 2.31.1-3, 9-12: “aurea Phoebi / porticus a magno Caesare aperta fuit. / tota erat in spatium Poenis digesta columnis […] tum medium claro surgebat marmore templum, / et patria Phoebo carius Ortygia: / in quo Solis era supra fastigia currus, / et valvae, Libyci nobile dentis opus.” Composed c. 28 BC. Ovid’s Metamorphoses were completed in 7 AD. Cf. Vell. Pat. 2.81.3; Suet. Aug. 29; Cass. Dio 53.1.3; Ov. Tris. 3.1.31-48.


Note that radiare (to beam, radiate) literally means “to furnish with spokes.”
ancestor, Aeneas, which, as Virgil says, resembled “the beauty which the hand
gives to ivory, or when silver or Parian marble is set in yellow gold.”

In fact, stones need not be exclusively white to evoke the sun. Any
material of allusive color would do, so long as it apparently shed, transmitted, or
embodied light. Thus, another statue of Augustus, installed in a suitably solar-
shaped herōon at Olympia, was made from soft but golden-hued amber. The
solar resonances of tawny, translucent stones must also have vastly increased the
appeal of onyx and alabaster and their promise was fulfilled in the Temple of
Fortune that Nero incorporated into the estate of his “Golden House,” the Domus
Aurea (64-68 AD). The Phengite walls of this temple were “as hard as marble,
brilliant and translucent” and “even when the doors were shut it gleamed like
the day” within (fig. 1.16).

Sun symbolism was part and parcel of Augustus’ declaration of a new
Golden Age under his beneficent rule and the aegis of his patron deity Apollo,
and emperors ever after would proclaim themselves eternal suns shedding their
beneficent rays on their subjects and cities. Stones of especially fiery character
joined other instruments of Augustan propaganda, and solar symbolism

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64 Verg. Aen. 1.592-593: “quale manus addunt ebori decus, aut ubi flavo/argentum Pariusve lapis
circumdatur auro." Servius comments, “‘PARIUSVE LAPIS’: candidissimus est, lygdisus
nomine... ut in decimo qualis gemma micat, fulvum quae dividit aurum”
65 Paus. 7.12.7-8. The statue probably stood in the herōon of Philip of Macedon, another king with
solar preoccupations.
66 Pliny HN 36.46.163. See Chapters 2 and 3.
concretized in both a huge new sundial (the Horologium) in the Campus Martius and the obelisk that calibrated it.\(^6^8\) It is beyond doubt that the Romans thoroughly understood the symbolism of these Egyptian totems and their materiality. The dedications they inscribed on these prizes recalled their original role in the indigenous solar-cults; Pliny tells us, correctly, both that the stone’s Greek name \textit{Pyropoikilos} meant “fire-colored” and that the Egyptian word “obelisk” meant “finger of the sun;” Ammianus Marcellinus compares their shape to sunbeams.\(^6^9\) As soon as circuses came to be associated with the sun, cosmic \textit{quadrigae} orbited the solar obelisks there too.\(^7^0\) Not surprisingly, then, Augustus’ granite obelisk was red and fire-colored and came from Aswan, which was believed to lie on the Equator and where, therefore, the stone supposedly soaked up the sun’s rays as it formed in the earth.\(^7^1\)

Another sun worshipper, the emperor Elagabalus (219-222 AD), apparently sought to resuscitate the same imagery when he planned to erect a massive column from the same freckled granite, a scheme shelved when stocks proved insufficient.\(^7^2\) Whether any such symbolism was intended for the Aswan

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\(^6^9\) Augustus’ dedicatory inscription on the Campus Martius obelisk names it SOLI DONVM (“a gift to the Sun”). Pliny \textit{HN} 36.14.64; Amm. Marc. 17.4.17.


\(^7^1\) Likewise, the Nubians were thought to be black because they lived in the zone where Phaeton’s chariot had neared the earth’s surface. The use of red and black striped stones, or buildings built from black and red stones (as in the 4th-century BC temple at Behbeit el Hagar), perhaps suggested the coupling of earth and sun: E. J. Walters, “The Black and the Red: Isis and the Egyptian Tradition for Contrasts in Stone,” in \textit{Asmosia VI}, ed. Lorenzo Lazzarini (Venice: Laboratorio di Analisi dei Materiali Antichi, 2000), 132.
granite column of Antoninus Pius (c. 161 AD) in the Campus Martius cannot be answered. But when Constantine erected himself a monument in Constantinople it bore his effigy as Helios, and stood at the hub of a large ovoid forum, again like the needle of an enormous sundial. It was also hewn from porphyry, another Egyptian granite and one whose flaming appearance still gives its quarry the modern Arabic name: *Djebel Dukhan*, “Smoking Mountain.”

Indeed, Philostratos claims (c. 217 AD) that the Hellenistic Temple of Sol at Jandial, Taxila (Eastern Punjab, now Pakistan) was built from “fire-colored” porphyry so that it “gave off a sheen as bright as sunlight.”

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72 Elagabalus planned to place an effigy of the god Heliogabalus on its summit; it was also to have had an internal stair; S.H.A. *Heliogl. 24.7*. The emperor had imported the cult of Elagabalus – tutelary deity of Emesa, worshipped in the form of a conical black stone (βαιύλος, Herodian 5.3.5) – to Rome, where he was popularly regarded as a sun-god and called *Deus Sol Elagabalus* and thence, erroneously, *Helio-gabalus*.


Returning to white marbles, not only the Sun but his sister the Moon was their patron. Alongside Greek marbles, Caesar and Augustus began to exploit the native stocks of marble from Luni (Carrara) for a glowing white stone that was available in large dimensions. Thus, when columns and capitals had to be replaced on the tholos by the Tiber, they were cut in Luni marble. Although marble from Luni lacked the luster of imported Greek varieties, Rutilius Namatianus (417 AD) must be repeating a common pun when he capitalizes on the similarity of the place-name “Luni” to the word for moon, “Luna.” Describing the glistening quarry walls, he writes of the “sister [Luna] who draws her radiance from the Sun [and] is the bestower of the city’s name [Luni].”

He continues, “the native crag shines painted with soft sheen, and its rocks surpass smiling lilies. The soil is rich with marbles, which, sumptuous in the light of their color, challenge the virgin snow.” In the strong sun, highlights danced on the polished temples like the glints on snow-clad peaks. Not only did this suggest a glacial purity but the supernatural shimmer of the slopes, the traditional domain of the Olympians and the epitome of virgin nature. It is in

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Philostratos misunderstood his source, Damis, it still tells an ingrained perception. Moreover, Marshall does not explicitly state the probable reason for shell increments, to make the plaster shine.

76 Alternative interpretations favor political, even patriotic, symbolism: Fant hypothesizes that Caesar exploited Luna marble to counteract Pompey’s use of Pentelic on the Theatre of Pompey: J. Clayton Fant, “Augustus and the City of Marble,” in Archéomatériaux: marbres et autres roches, ed. Max Schvoerer (Talence: CRPAA. PUB, 1999), 277-78. One wonders how many Romans could have told the difference between the stones.


these terms, therefore, that Ovid celebrates Tiberius’s reconstruction (as a private citizen, during Augustus’ reign) of the Temple of Concordia, and that Josephus describes the great Temple in Jerusalem:

persons straining to look at [it] were compelled to avert their eyes, as from solar rays. To approaching strangers it appeared from a distance like a snow-clad mountain; for all that was not overlaid with gold was of purest white.

In sculpture, marble’s luminosity was increased by the addition of a thin film of wax, as still miraculously survives on a portrait of Trajan from Ostia. In fact, statues were occasionally given such a high polish that visitors were advised to shield their eyes from the glare. Some temples received the same treatment, perhaps the Parthenon included. Other observers noted that the superabundance of light in high-gloss, white temples also meant that the gods could not be far away. The polished whiteness of Roman temples was still

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79 Ov. Fast. 1.637: “Shining goddess, the dawn has placed you in a snow-white shrine” (“Candida, te niveo posuit lux proxima templo”). Written c. 10 AD. Virgil also calls Paros “snowy” (“niveamque Paron”, Aen. 3.126). \*Niteo (“to shine”) is cognate with \*nix (“snow”).


82 Pliny HN 36.4.32, on the statue of Hecate at Ephesus, “in cuius contemplatione admonent aeditui parcere oculis, tanta marmoris radiatio est.”

sufficiently striking in the fifth century, that Christian mosaicists invented a diagonalizing, changeant convention to express their shimmer (fig. 1.17). This mosaic appears on the proscenium arch of S. Maria Maggiore, which also boasts the earliest representation of the heavenly edifice that will sweep away the pagan temples, the Heavenly Jerusalem that must descend at the end of time and whose walls were built from twelve gems the size of boulders (fig. 3.6; see Chapter 3). Their juxtaposition seems to foretell the words of Fulgentius of Ruspa (468-533,) visiting the City in the early sixth century, “Oh brothers, how beautiful must be the heavenly Jerusalem, if earthly Rome can shine with such brilliance!”

**Magnificientia, Ex uno lapide, Anathyrosis and the Res Publica**

Whatever the color of a temple, or any other building, in the late Republic and early Empire a material as expensive as marble achieved full legitimacy only when it became the magnificent trapping of a magnificent state. Livy and others frequently use the term *magnificentia* to extol the dignity of grand public buildings, particularly temples. *Magnificentia* implied a certain loftiness of

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84 Rutil. *De redito suo* 1.95-96 (on Rome): “and the glittering temples dazzle the wandering eyes: I could well believe such are the dwellings of the very gods.” (“Confunduntque vagos delubra micantia visus: / ipsos crediderim sic habitare deos.”).

85 S. Maria Maggiore, triumphal Arch mosaic (432-440 AD), left spandrel, top register (Annunciation): Josef Wilpert, *Die römischen Mosaiken und Malereien der kirchlichen Bauten vom IV. bis XIII. Jahrhundert*, 4 vols. (Freiburg im Breisgau: Herder, 1916): 3: pl. 56. The wall and (marble) roof tiles are shown changeant to manifest light. The convention is absent from the city walls represented in the same mosaics. The roof tiles on the temple shown in the right spandrel, top register (*Jesus brought to the Temple*; Wilpert, pls. 59-60) have diagonal shading on gold backgrounds to suggest gilt bronze.


87 Livy 6.4.12 (splendors of Rome); Pliny *HN* 36.21.95 (Temple of Artemis, Ephesus); Cic. *Verr.* 2.4.108 (Temple of Ceres); Tac. *Hist.* 3.72 and 4.53 (Temple of Jupiter Optimus Maximus).
purpose, a magnifying beyond normal conditions and an exalted protocol for both behavior and, in this case, construction. The term was both quantitative and qualitative, expressing the unbridled scale of the buildings and the unworldly splendor of their materials. Livy commends Antiochus because he resumed construction on the massive Temple of Zeus Olympeios in Athens (c. 175 BC) to create “the only one in the world that, though unfinished, was designed to conform to the greatness of the god;” Ovid says that Augustus’ Temple of Mars Ultor measures up to the god himself ("The god is huge, and so is the structure; no otherwise ought Mars to dwell in his son’s city"). On the other hand, Vitruvius, who otherwise has very little to say about marble, thinks that the architect Gaius Mucius’ Temple of Honor and Virtue would have attained perfection if only it had been built from marble, and Ammianus comments that the opulent “temple of Jupiter Optimus Maximus is surpassing as much as divine things excel earthly ones.”

Yet just as highly prized as the scale of the god’s house and the refinement of its materials were the finishing of the masonry seams and the image of tightly-locked integrity that they presented, aspects that became all the more visible with the absence of color. In the new buildings, masons borrowed the precision

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88 Livy 6.4.12: “magnificentiae vero in deos vel Iovis Olympii templum Athenis, unum in terris pro magnitudine dei, potest testis esse” (a start had been made in 530 BC). Ov. Fast. 5.553: “Et deus est ingens et opus.”


90 Amm. Marc. 16.10.14: “Iovis Tarpei delubra, quantum terrenis divina praecellunt.”
fittings of Greek architecture, finely draughted blocks with fine joints highlighted by channeled borders. In principle, such precision draughting does not obey an abstract, regularizing aesthetic. Rather, the ensemble of keenly draughted stone with mortar-less joints of a hair’s breadth presented an image of steadfastness that matched the cohesion of the building blocks of the state itself. Every historian is familiar with Augustus’ deathbed words that he had found a Rome of brick but left one of marble. Less frequently quoted is Cassius Dio’s interpretation (c. 210/222 AD) that, “he did not thereby refer literally to the appearance of its buildings, but rather to the strength of the Empire.”

This idea became so common that, when the rhetorician Aelius Aristeides eulogizes Hadrian’s massive temple at Cyzicus (166 AD) over a century after Augustus, it is natural for him to compare well-jointed masonry to the regimen of the well-ordered city: the temple is a colossal mass, whose individual blocks and ornaments (citizens) are in harmony with the whole (the state; Appendix 1.2). We can be fairly sure that this metaphor held the same importance even before Augustus was born because late Republican paintings and reliefs summarize the foundations of cities into the rebus of ashlar walls carefully joined under the noses of tutelary deities whose job it was to safeguard the state in question (figs. 1.18-19). Indeed, the allegory became a reality in city walls like

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91 Suet. Aug. 28.3.

92 Dio Cass. 56.30.3-4: τοῦτο μὲν οὖν οὐ πρὸς τὸ τῶν οἰκοδομημάτων αὐτῆς ἄρχησαν ἄλλα πρὸς τὸ τῆς ἄρχης ἱσχυόν ἐνεδείξατο. The locus classicus of this attitude to public building is Vitr. De Arch. praef.: “I observed that you [Augustus] cared not only about the common life of all men, and the constitution of the state, but also about the provision of suitable public buildings; so that the state was not only made greater through you by its new provinces, but the majesty of the empire was also expressed through the eminent dignity of its public buildings” (trans. F. Granger, 1931).
those of Pompei, which were made from local volcanic rubble but stuccoed to project a brilliant image of opus quadratum (squared ashlar) far afield.

The chain of hierarchy that unified the body public into a seamless state, as pictured in the masonry composite, may be further understood by analogy to a passage from Seneca. Seneca distinguishes between continuous bodies (man), composite bodies (ships, houses) and collective ones (the army, the people, the senate), but he concludes, “We believe nothing is good, which is composed from things that are distinct.”

His densest formulation pronounces,

that some things are continuous, others composite. A composite is [defined by] the contact between two bodies joined to each other. Continuity is the uninterrupted joining of parts to each other. Unity is continuity without the composite feature [... and] when I speak of the one [...] I am referring not to a number, but to the characteristic of a body that is cohesive by its own oneness, without any external help.

According to Seneca, the acme of such cohesion is a body without contiguities or joins, that is a perfect whole. Because this gold standard was unfeasible in architecture, which is the art of assembly, to approach perfection two subsidiary conceits must be enlisted: ex uno lapide ("out of one stone," but meaning “all of a piece”) and harmonia (literally a “good fit,” and thence “harmony”). The first denoted the overall desired result, the second the jointing necessary to achieve it; together they signified perfectibility through confection.

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94 Sen. Epist. 102.6. Epist. 102.7: “nullum bonum putamus esse, quod ex distantibus constat.”

95 Sen. QNat 2.2.2, 4: “aliquid continuum, aliquid commissum; et commissura est duorum coniunctorum inter se corporum tactus, continuatio est partium inter se corporum tactus, continuatio est partium inter se non intermissa inter se coniunctio. Unitas est sine commissura continuatio […] si quando dixero unum […] non ad numerum referre, sed ad naturam corporis nulla ope externa sed unitate cohaerentis.” Also discussed in Indra Kagis McEwen, Vitruvius: Writing the Body of Architecture (Cambridge MA / London: MIT, 2003): 55-66. McEwen cites the variants of Sextus Empiricus and Pomponius.
Ex uno lapide could refer to sculpture, revetment and architecture, but far the most famous example of the trope is Pliny’s praise of the Laocoön, which, amongst other virtues, he extols as hewn from a single block. Some commentators use Pliny’s words as evidence that he must have been describing another statue, as the object that has survived is actually assembled from seven interconnecting pieces. Such empiricist critique fails to weigh ex uno lapide as a criterion of perfection, in the sense of perficere, to utterly finish something and bring it to the ultimately unattainable state of compete realization, meaning to hypostasize totally a concept as form. Ancient artists were well aware of this inadequacy, and Apelles was only one of several to sign their paintings in the imperfect tense because no artwork could ever attain this telos.

Integral to the image of ex uno lapide in monumental architecture was the valorization of the perfect joins between the individual stones themselves, so important a detail that Livy still commends the finely draughted masonry of the Capitol as the paragon of magnificence even in Augustus’ newly marbled city.

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96 Pliny HN 36.4.37. Pliny mentions two other sculptures “ex uno lapide”: Chariot with Apollo and Diana (HN 36.36); Winged Cupids Playing with a Lioness (HN 36.41). Tomei, amongst others, asserts that the phrase only means “out of one type of marble”: Maria A. Tomei, “I resti dell’arco di Ottaviano sul Palatino e il portico delle Danaiidi,” Mélanges de l’Ecole française de Rome. Antiquité 112 (2000): 558. This is grammatically implausible. A summary history of the topos from Herodotus to Master Gregorius is given in Salvatore Settis et al., Laocoonte, fama e stile (Rome: Donzelli, 1999): 79-81. It is fleetingly treated in Irving Lavin, “Ex Uno Lapide: The Renaissance Sculptor’s Tour de Force,” in Il cortile delle statue. Der Statuenhof des Belvedere im Vatikan, ed. Matthias Winner et al. (Mainz: Zabern, 1998), 191-210. But Lavin asserts that the antique topos was only “a source for admiration… without reference to any underlying matter of theory or principle” and only in the Renaissance did the “integrity of the block [become] a veritable ethical imperative, a testimony not only to the bravura of the artist but also to his personal integrity” (194).


98 Livy 6.4.12: “Capitolium quoque saxo quadrato substructum est, opus vel in hac magnificentia urbis conspiciendum.”
The phrases “consensus lapidum” and “coniunctio lapidum” also figure on the first-century Mausoleum of the Flavii at Kasserine, Tunisia (Appendix 1.3), and a fourth-century triumphal arch, and the concept is even repeated by Carolingian poets. But in Greek terminology, that which Vitruvius transmitted to Roman tradition, the term used to denote this perfect jointing of masonry was ἀγογή (Latin, harmoge), which referred to both the body and the body politic. It signified equally the working unison of different organs of government or the organic joining of human bones. Its cognate, the better-known ἁρμονία (harmonia), purveyed exactly the same virtues, and in origin it too referred to the “precision of good jointing” whether in timber or stone.

In monumental masonry this concern with fine fitting, with harmonia, had given rise to the technique known as ἀναθρόσις (anathyrosis), whereby the middle of a marble block (the boss) is left proud and only a narrow channel around the edge is chiseled down to ensure the block’s perfect alignment with its neighbors (fig. 1.20). The only reason this praxis had originally come into being was to save labor on foundation walls, or stone joints internal to a wall, in other words those places where the labor of dressing the whole block was unnecessary.


100 Polyb. 6.18.1; Gal. Nat. Fac. 19.460; Joseph. AJ 13.11.3; Pollitt, Ancient View: 150-51. In painting and sculpture the term also referred to the seamless meshing of one part with another.

101 Paus. 8.41.8, on the Temple of Apollo at Bassae; Paus. 8.8.8, on the blocks in fortifications; Diod. Sic. 2.8.2, on the construction of a bridge: Pollitt, Ancient View: 151-54.
because the joins were invisible. There was absolutely no need to extend this technique to the blocks of facing walls, especially on premier monuments, unless it enjoyed some emblematic value. There was even less reason to continue simulating the technique for centuries when the facing was just that, a slender veneer over a more pedestrian material (fig. 1.21). The best-preserved example of such faux-anathyrosis is the cella wall of the Temple of Mars Ultor in the Forum of Augustus, where courses of solid marble protrude from the wall core every couple of meters, between which sheets of marble veneer would have imitated ashlar (fig. 1.22).

The great irony of such fictions was, of course, that by stressing the joins anathyrosis professed the solidity of the wall by implying a depth to its blocks (fig. 1.23). For humorless fanatics like Seneca, such solidity was indispensable in conferring a moral depth on architecture and so he applauds the decent and manly construction of Scipio’s “villa built of draughted stone” (“villam

102 Anastasios K. Orlandos, Les Matériaux de construction et la technique architecturale des anciens Grecs (Paris: E. de Boccard, 1966-68): 2: 99-100; Martin, Manuel: 1: 114-99. This pattern was itself a pointer to the anathyrosis of the invisible joining of the block faces themselves, where, instead, the centre of each joint face was hollowed out and only the joint surface itself smoothed around its border. Most scholars now use the term exclusively to denote this invisible jointing, but the draughted margins of the facing ashlar accomplished the same task and go under the same name: Giuseppe Lugli, La tecnica edilizia romana, con particolare riguardo a Roma e Lazio, 2 vols. (Rome: Giovanni Bardi, 1957): 1: 207-08; J. J. Coulton, Greek Architects at Work. Problems of Structure and Design, 2 ed. (London: Granada, 1982): 46-47.

103 The example illustrated is external cladding from cella of the Temple of Venus Genetrix in the Forum Iulium, dating to the Trajanic rebuilding: Carla M. Amici, Il Foro di Cesare (Florence: Leo S. Olschki, 1991): 88. We should not take too literally Virgil’s description of the Temple of Apollo Palatinus as “solido de marmore templum / instituam” (Aen. 6.69-70) for, like the Temple of Mars Ultor, it may have been marble revetted over travertine. A good example of a brick structure disguised as a marble temple is the Capitolium at Ostia: Carlo Albo, “Il Capitolium di Ostia. Alcune considerazioni sulla tecnica edilizia ed ipotesi ricostruttiva,” Mélanges de l’École française de Rome. Antiquité 114 (2002): 363-90.

104 This example illustrated is the cella wall of the Temple of Hercules Victor: Heilmeyer and Rakob, Rundtempel: pl. 17.1. For a detailed description: Strong and Ward-Perkins, “Round Temple,” 11-16, 32.
extractam lapide quadrato“: ep. 86.4). To Seneca’s mind, men of substance would not allow walls and vaults to be concealed under skin-deep mosaic, gold leaf or veneers of shimmering marble (Appendix 2.3-4), and in one fit of hyperbole he even pronounces, “under marble and gold dwells slavery.”

If fine joining was vital to ashlar construction, by the same token it proved that no alien bond was essential to the wall’s stability. Mortar was superfluous and cramps and ties were hidden. In fact, in the eyes of Vitruvius and subsequent writers for whom buildings must appear indivisible units, the overall pattern of this joining became the very “picture” of solidity, even eternity. The obvious paradox – that one could see all the joins – only resolved itself if one regarded them as the seams of union rather than the borders of segregation, and we might better apply the term “fractionizing” rather than “subdivision,” because it better preserves this sense of overall cohesion. Much later, the same paradox will be encapsulated in a medieval adage about the Vatican obelisk,

105 Sen. Ep. 90.10: “sub marmore atque auro servitus habitat.” Cf. Ep. 8.5-6; 110.14-18; 115.3-9. For the common topos of gilt ceilings, see Chapter 2. Cicero’s indictment of Verres for corruption receives added weight from the charge that he literally “white-washed” the columns (“columns dealbari”) of the Temple of Castor and Pollux in the Forum Romanum, rather than having newly-quarried ones delivered (Verr. 2.5.145, 2.5.147). In his treatise on female cosmetics Ovid also suggests that this sort of beauty is only skin-deep: “Lofty halls are plated with gold, black earth lays hidden under set marble” (“auro sublimia tecta linuntur / Nigra sub imposito marmore terra latet”: Medic. 7-8). Seneca the elder also reviles “that stone which is cut to cover walls with its thin veneer” (“ille secatur lapis et tenui fronte parietem tegit”: Controv. 2.1.12)

106 Vitr. De Arch. 4.4.4: “if the walls [of the temple] are to be built of squared stone or marble the pieces should be of moderate and equal size [quadrato saxo aut marmore, maxime modicis paribusque videtur esse faciundum]… the protruding joins surrounding the vertical and bedding joints will produce a more pictorial effect in the general view [circum coagmenta et cubilia eminentes expressiones graphicoteran efficient in aspectu delectationem].” Of Greek masonry he says that perfect coursing bonded in depth will endure for eternity (De Arch. 2.8.5: “et sic maxime ad aeternitatem firmas perficiunt virtutes”).
which Settis has noted: “If it is a single stone, tell me by what art it has been raised; if many stones, tell me where are the joins.”

Finally, the unity of *ex uno lapide* helped assimilate the monument to a larger, elemental landscape. It is again Seneca who pronounces that God,

has built for you a huge mansion […] a house in which you see, not flimsy veneers thinner than the very blade with which they are sawn, but virgin masses of the most precious stone, of a substance with such a variety of markings that you will marvel at its tiniest fragments.

In sacred architecture, this assimilation was integral to its sacralizing, allowing the temple to become almost a sacred mountain itself, like those, in fact, with which Greek temples were themselves aligned. Indeed, the act of quarrying must itself have raised the comparison, for after the blocks had been excavated the quarry was left a stepped and architectonic negative. Thus, in yet another medieval myth a rock-cut theater is celebrated as a building *ex uno lapide*.

We can also hear the idea of cosmic assimilation at work in Aristeides’ telescopic imagery of the colossal Temple at Cyzicus; that its blocks of

\[\text{References:}\]

107 “Si lapis est unus, dic qua sit arte levatus, / Si lapides plures, dic ubi congeries” (Magister Gregorius, *Narratio de Mirabilibus Urbis Romae* 29; Settis et al., *Laocoonte*: 80).

108 Sen. *Ben.* 4.4.2: “Ingens tibi domicilium… in quo vides non tenuas crustas et ipsas, quae secantur, lamna graciliores, sed integras lapidis pretiosissimi moles, sed totas variae distinctaeque materiae, cuius tu parvula frusta miraris.”


110 Magister Gregorius: “the marvellous theater in the marble mountain at Heraclea… is carved in such a way, that all the chambers in the structure, all the seats in the cavea, and all the exit ramps and caverns were carved from a single solid stone” (“Theatrum autem admirabile in Heraclea de monte marmoreo… Quod quidem ita sculptum est, ut omnes cellulae mansionum et sedilia universa per girum et exitus omnes et antra ex uno solidoque lapide sculpta sint;” *Narratio de Mirabilibus Urbis Romae*, 11).
Proconnesian marble were themselves as large as temples, the temple as large as a sanctuary, and the sanctuary as large as a city (Appendix 1.2). Moreover, the potentially Babel-like proportions of monumental construction not only suggested occupants of superhuman proportions, from Phidias’ Zeus to the Emperor Domitian in his Triclinium (Appendix 2.6), but also, as Aristeides makes plain, these new landmarks actually altered the face of the earth. They were new mountains, or new islands (cf. Appendix 1.3). While these feats of engineering competed with Nature they did so on their own architectonic terms, approximating the buildings to an absolute value and an order based upon a higher regularity than that of nature. Nature breeds no right-angles and, to prove the point, Plutarch relates that when a Spartan king was impressed by the costly coffering of the room in which he dined he dryly enquired whether “trees grew square in that country.” In Greek and Roman culture alike it was natural to associate this construction-ideal with the culmination of stable government and society, as exemplified in Vitruvius’ account of the development of civilized life. Vitruvius relates that civilization began with the discovery of fire and progressed through the evolution of language to the tectonic development of shelter, which finally allowed man to leave the cave, form communities, and eventually build cities. In Rome, not surprisingly, true hardliners from at least Cato’s time had gone so far as to view any sort of construction as against Nature.

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111 The dedication inscription of the Lateran obelisk (CIL 6.1163) refers to this obelisk as a “sizeable slice of mountain... hewn from the red quarry that has leaped up and knocks at heaven’s door” (“haut exiguam partem montis... rursus rufis avulsæ metallis emicuit pulsatque polos”).

112 Plut. Lyc. 13.5: ἐφοτήσαι τὸν ξένον εἰ τετράγωνα παρά αὐτοῖς τὰ ξύλα φύεται

While the dominion of empire was manifested in the power to command even nature herself, the ulterior ambition was buildings that appeared almost ready-formed by nature in all its seamless perfection and detail, with the architect or artist consequently acting only as a sort of midwife to their birth.\textsuperscript{115} As Seneca says, “unity is... the characteristic of a body that is cohesive by its own oneness, without any external help.” This idea was so rooted that there was potentially even an aural equivalent to the unity of \textit{ex uno lapide}. For the Bible tells us that Solomon’s Temple was “built of stone made ready before it was brought thither, so that there was neither hammer nor axe nor any tool of iron heard in the house while it was in building” (\textit{I Kings 6:7}). These words are normally considered a precocious episode in off-site prefabrication occasioned by the necessity that not even the sounds of labor violate the sacrality of the sanctuary. However, the same passage can also signify that the alienation of labor was the first step to erasing all the indices of facture. Josephus, in fact, goes on to specify:

with great skill the whole construction of the temple was born from stones cut fine and laid together so neatly and smoothly that to the beholder there appeared no sign of the use of mallets or other work-tools, but all the material seemed to have fitted itself together naturally without the use of these things, so that their fitting together seemed to have come about of itself rather than through the force of tools.\textsuperscript{116}


\textsuperscript{116} \textit{AJ} 8.69: ἡ δ’ ὁλὴ τοῦ οἴκωδομία κατὰ πολλὴν τέχνην ἐκ λίθων ἁρφοτόμων ἐγένετο συντεθέντων ἀρμονίως πάνω καὶ λείες, ὡς μήτε σφόδρας μήτε ἄλλου τινὸς ἐργαλείου τεκτονικοῦ τοῖς κατανοοῦσιν ἐργασίαν δηλούσθαι, ἀλλὰ δίχα τήτοτεν χρήσεως πάσαν ἠρμόθεθαι τὴν ὑλὴν προσφυός, ὡς ἐκούσιον τὴν ἀρμονίαν αὐτῆς δοκεῖν μᾶλλον ὡς τῆς τῶν ἐργαλείων ἀνάγκης.
Associated with the “you can’t see the joins” topos in pronouncing the miraculous birth of the building is another that has been equally debased by over-repetition, namely “it didn’t take very long either.” When the hand is removed from the artifact’s making, the whole process of its manufacture is elided, and with it the dimensions of history or human time in favor of the timeless, the undivided moment of perfect birth. This notion implicitly situates the artifact in a different time-scale, in mythic time, and thence the realm of the eternal and the cosmic. These considerations in their turn subtend the remarks of Plutarch (c. 45-125 AD), who marveled not only at the skilled precision and integrity of the Parthenon (448-432 BC), as well as other Periclean monuments, but that the whole building was “created in a short time for all time.” Plutarch was not making some banal comment about speedy execution, but rather insisting on the achronism of the temple’s creation. As he says, five hundred years after its inauguration, the Parthenon seemed “even then and at once antique, but in the freshness of its vigor” it was also “recent and newly wrought.” Moreover, its precision testified that it was in no way blunted by the ages thanks to its “bloom of perpetual newness,” as though “the unaltering breath of an ageless spirit had been infused into” it.\(^{117}\) In Plutarch’s view, the Parthenon was truly divine because like the Olympians it was “immortal and ageless for all time,” and as “unaging and imperishable” as the artifacts of the

divine blacksmith Hephaestus. Conceptually, the Parthenon comes into being just as Athena had irrupted into the world from the head of Zeus fully formed and fully armed. In Roman architecture, the desire for such perpetual youth (or perpetua novitas; Appendix 1.3), even led inscriptions to claim that buildings were newly built, even where they had received only the most modest of restorations.119

The ideals of ex uno lapide still steep Cassiodorus’ description of Rome’s monuments in the early sixth century, and his praise is all the more remarkable because it occurs in what is ostensibly a legal document, the Formula Addressed to the Prefect of the City on the Appointment of the Architect.120 Before concluding that all Rome is a miracle, and having lauded Rome’s statuary as “another population in stone” procreated by Nature, he asks:

what should we say about the lofty columns [as slender] as rushes? Those towering heaps of buildings seem to be supported as though raised on canes and hollowed out with fluted columns in such uniformity that you would much rather believe that the buildings themselves had been poured out, you would think that what you see smoothed out of the hardest minerals was actually made from wax, [and] you would say that the joins of the marbles were generative veins, which deceive the eyes into believing that these praiseworthy things have grown miraculously.121

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118 E.g. Hom. ll. 8.539, 12.323, 17.444. The golden dogs that Hephaistos fashioned to guard the palace of Alcinous are “immortal and unaging” (Od. 7.94): Clay, “Immortal,” 112-18.


120 Cassiodorus (480 - c. 575 AD) was a historian, rhetorician, administrator and exegete. His career as an administrator for the Ostrogothic kings of Ravenna began about 505 and ended in 540 when Justinian overran the city. Until the 550s he continued his career in Constantinople, thereafter retiring to his family estates in Calabria where he died: James J. O’Donnell, Cassiodorus (Berkeley / London: University of California Press, 1979).

121 Cassiod. Var. 7.15.3: “quid dicamus columnarum iunceanam proceritatem? moles illas sublimissimas fabricarum quasi quibusdam erectis hastilibus contineri et sub tanta aequalitate concavis canalibus excavatas, ut magis ipsas aestimes fuisse transfusas, ceris iudices factum,
Chapter 1: Roman Architecture and Sculpture

Antique Theories of the Generation of Stones

1) Water: travertines

Clearly Cassiodorus still sustains the criteria of harmonia and ex uno lapide, for he speaks of these marble piles as though Nature herself had cast them whole in the blink of an eye. But he also alludes to the peak of an imagined process of growth and transposes the joins between the blocks into the veining within colored stones themselves. In so doing he relies on longstanding beliefs about the generation of the stones.

The antique conception of the formation of marbles and all minerals had originated in Plato’s passing mention of “fusible stones and solidified juices” (Timaeus Bk. 8) and then rested upon the cryptic foundations of Aristotle’s Metereology (336/323 BC). This basis was refined in Theophrastus’ On Stones (315/305 BC), augmented by Posidonius (c. 135 – c. 51 BC), more obscure figures like Fabianus Papirius (late first century BC), and was more or less parroted in Pliny’s Natural History (77/79 AD).

122 Although many of its details were

Quod metallis durissimis videas expolitum, marmorum iuncturas venas dicas esse genitales, ubi dum falluntur oculi, laus probatur crevisse miraculis.” I take the problematic “concavis canalibus,” (literally “hollow/concave pipes”) to indicate the scoops of fluting.

enigmatic even to the ancients, the aggregated tradition that Pliny inherited and transmitted to posterity was that stones, especially marbles, were born from the sediment of earthy particles deposited by rain-water within the bowels of the earth and then purified by the crust through which they percolated.\footnote{According to Aristotle, as a result of the sun’s heat the earth emits either moist or dry exhalations. The first is vaporous, the second gassy or even fiery. When these exhalations cannot escape the earth, two substances are formed below its surface: (dry) “fossiles” – meaning anything dug out of the earth – and (moist) metals. Metals harden when they come into contact with freezing rock. “Fossiles” form when the dry exhalation combusts earthly matter whilst trying to escape the earth, the degree of burning determining the color, the degree of hardening determining whether the resultant ash then becomes stone. However, Aristotle and Theophrastus did not believe that stone was composed exclusively from earth, but rather that earth was the predominant constituent of the four elements, and it must contain some water in order to cohere. Eichholz, \textit{Theophrastus}: 15-47.} It is no coincidence that when Roman poets speak of polished marbles more often than not it is hot on the heels of some discussion of water, and Latin poetry is rife with the coupling of “flowing water” and “living rock.”\footnote{Joseph C. Plumpe, “Vivum Saxum, Vivi Lapides. The Concept of ‘Living Stone’ in Classical and Christian Antiquity,” \textit{Traditio} 1 (1943): 1-14. The only limitation of this fundamental contribution is that Plumpe regards “living rock” as a literary metaphor rather than a geological “fact.”} The association was also accentuated by the foamy appearance of stones like pumice, which Pliny called and thought to be the “spray of the sea.” Ancient engineers would have noted the perceptible generation of stone in deposits of natural travertines within aqueduct \textit{cuniculi}, while at Hierapolis (Pammukale), in Turkey, the entire population participated in the process. As Vitruvius noted, their city was built out of, and sat upon, a huge calcareous mass, and lime-charged water still streams through its ruined streets today in search of long vanished bath-houses, depositing lime as it goes (\textbf{figs. 1.24-26}).\footnote{Vitr. \textit{De Arch.} 8.3.10.}
The stream of associations was fed at any urban bathhouse, where trickling water and films of vapor reinvigorated marble sheets and basins. Similarly, Aristotle’s doctrine of the dry exhalation, by which the earth released and solidified stones, seemed to be confirmed by the calcite deposits at hot springs. For all these reasons an anonymous, possibly Byzantine, poet eventually conceived one bathhouse as a microcosm of the whole world system:

While Earth in her innermost recesses has perpetual fire
   And boils with hidden flames, the hot vapor,
Ascending to the air owing to the pressure from below,
   Belches forth streams of water heated by fire

Grottoes were mouths of the “living earth,” in which the “living rock” was nourished by “sweet waters” from subterranean springs, and inscriptions repeat the same imagery in their man-made equivalents, nymphaea. The Romans certainly feigned natural formations, as pumice decked nymphaea walls transformed them into natural grottoes, and this material play would enjoy a long afterlife in those French and Italian Mannerist grottoes that contemporary observers were fond to see as crucibles of generation and laboratories of natural art. But the same precepts may also have been at play in two imposing monuments of Roman engineering built during the reigns of Claudius and Nero,


namely the Porta Maggiore (52 AD) and the Claudium (54 – early 70s AD).\footnote{Achille Petrignani, \textit{Porta Maggiore: il suo ripristino e la sistemazione delle adiacenze} (Rome: Achille Petrignani, 1938); Robert Coates-Stephens, \textit{Porta Maggiore. Monument and Landscape} (Rome: Bretschneider, 2004); Antonio M. Colini, \textit{Storia e topografia del Celio nell’antichità} (Vatican City: Tipografia Poliglotta Vaticana, 1944): 137-62; Adriano Prandi, \textit{Il complesso monumentale della basilica celimontana dei SS. Giovanni e Paolo} (Vatican City: Tip. poliglotta vaticana, 1953): 373-420. The antique name title of the Temple of the Deified Claudius complex was “Claudium,” not “Claudianum.”}

Both are built from travertine blocks, whose bulky faces are fantastically rustic though, as ever, the joins between them are finely drafted. Of course not all roughened masonry necessarily indicates dialectic with geology, but because the Porta Maggiore and the Claudium share intrinsic connections with water there is reason to believe that their rugged faces do.\footnote{E.g. the rusticated masonry of the fire-wall of the Forum of Augustus, Rome, or the rear wall of the Library of Hadrian, Athens (whose buttresses are diametric counterparts to the attached Carystian columns on the entrance façade) obey the hierarchy of engineering over architecture. Onians ventures that rustication often makes “the visitor feel he has moved from a tough and unrefined world to one that is ordered and elegant” or represents “a triumph over nature”: John Onians, \textit{Bearers of Meaning: the Classical Orders in Antiquity, the Middle Ages, and the Renaissance} (Cambridge: Cambridge University Press, 1988): 48-51.}

The Porta Maggiore is a monumental gateway in the aqueduct conveying the Aqua Claudia and the Anio Vetus over the fork of the Via Labicana and the Via Praenestina (\textbf{fig. 1.27}). Because this arch carried the waters from springs miles distant to their outlets in the urban baths we might therefore think of it as a huge triumph of solidified water at the interface between city and country.\footnote{For Roman appreciation of aqueducts, see Statius on the Aqua Marcia: “whose vagrant water multiplies on towering masses, transmitted in the air by countless arches” (\textit{praecelsis quarum vaga molibus unda / crescit et innumero pendens transmittitur arcu”}; Stat. \textit{Silv.} 1.5.27-28); echoed in Rutil. \textit{De redito suo} 1.97-99: “What shall I say of the hanging streams on airy arches, where scarcely Iris [the rainbow] could raise her rainy waters? You would say rather that mountains had grown as far as the stars” (\textit{Quid loquar aerio pendentes fornice rivos, / qua vix imbriferas tolleret Iris aquas? / Hoc potius dicas crevisse in sidera montes”}). Conversely, for the idea of trumping nature by spanning her rivers: Fred S. Kleiner, \textit{“The Trophy on the Bridge and the Roman Triumph over Nature,”} \textit{L’Antiquité Classique} 60 (1991): 182-92.}

Its rustication easily presents an image of metamorphosis and its columns sprout up like palm-trees. Even the pedestrian passage between the Porta’s two great
arches resembles a *cuniculus* more than it does any urban feature (fig. 1.28). Only at the attic level are the crusts shorn away to reveal a smooth and incised artifact. The Claudium, on the other hand, was a massive podium for the Temple of the Divine Claudius that extended and regularized the Caelian Hill and whose tallest (northern) façade was a monumental nymphaeum. Down its serried niches streamed rivulets from the Aqua Claudia, so that this man-made hill became a vast terminal fountain for the emperor’s eponymous aqueduct. Serlio had both monuments in mind, when discussing the dialogue between art and nature represented by the mixing of rough masonry and smooth molding. But to antique eyes also, the rough facades may have aped the

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131 Relevantly, Festus feels it necessary to distinguish between the two possible meanings of *petra*, “rock,” by comparing cliffs to voussoirs: “There are two kinds of rocks, one of which is the natural rock which juts into the sea, which Ennius remembers in Bk. 11 [Ann. 11.351]: ‘a cliff deep-falling, covered by mighty rocks,’ and Laevius in *The Centaurs*: ‘Where often I wander among the rocks.’ The other kind of rock is shaped by hand, as Aelius Gallus shows: ‘Rock is, the place which right and left will complete the arch up to the level of the arch apex.’ (“Petrarum genera sunt duo, quorum alterum naturale saxum prominens in mare, cuius Ennius meminit lib. XI: ‘Alte delata petrisque ingentibus tecta’; et Laevius in *Centauris*: ‘Ubi ego saepe petris’; alterum manufactum, ut docet Aelius Gallus: ‘petra est, qui locus Dextra ac sinistra fornicem texpleturusque ad libramentum summi fornicis.’“): Wallace M. Lindsay, ed., *Sexti Pompei Festi De Verborum Significatu* (Leipzig: B. G. Teubner, 1913), 226.

132 Coates-Stephens, *Porta Maggiore*: 46 (note 53). The nymphaeum façade is brick-faced concrete, once sheathed by facing materials, no scrap of which survives. The remains are in poor condition, and most of the original brick facing has been robbed. Putlug holes are discernible and (apparently) conduit apertures at the top of the distended niches. No crampholes for revetment are visible. It is therefore likely that several niches were decorated as grottoes, or that pumice, shell and tufa revetting imitated marble panneling (as in the pre-Neronian Nymphaeum of the Via degli Annibaldi). A colonnade is assumed to have screened the façade.

133 “It was the practice of the ancient Romans to mix the rustic not only with the Doric, but also the Ionic and even the Corinthian: the reason being that one will not err if the mixing is made in only one manner, representing by this partly the work of nature, and partly the work of artefice: for when columns are banded by rustic stones, and also architraves and friezes interrupted by wedges, they show the work of nature but the capitals and parts of the columns and the cornice and pediment as well represent the work of the hand” (“È stato parer de gli antiqui Romani mescolar col rustico non pur il Dorico, ma lo Ionico, e’ I Corinthio anchora: il perché non farà errore se d’una sola maniera si farà una mescolanza, rappresentando in questa, parte opere di natura, e parte opere di artefice: perciòché le colonne fasciate da le pietre rustiche, e anco l’architrave e fregio interrotti da li cunei dimostrano opera di natura, ma i capitelli e parte de le colonne, e così la cornice col frontespicio rappresentano opere di mano”): Sebastiano Serlio, *Regole generali di architettura sopra le cinque maniere de gli edifici, cioe, thoscano, dorico, ionico, corinthio,*
natural formations found in nature, especially caves, as for example that described by Ovid: “not built by art: [but] nature, with her skill, had imitated art; with living pumice and light tufa she had spontaneously constructed an arch.”

Equally, Sidonius’ later praise of another tufa grotto might be applied to both monuments. They require “no embellishment, for Nature has given [them] beauty. It is appropriate that no counterfeiting has pleased here; no artificial splendor there; no hammer with re-echoing blow shall dress these stones, no marble workmanship take the place of the weather-worn [stone].” The much later tribute to the ruined Theater of Pompey that Cassiodorus puts into Theodoric’s mouth might do just as well:

It would be conceivably easier for mountains to fall than for that solidity to tremble: For that very mass is so entirely formed from vast blocks that, but for the added craftsmanship, it too might be thought the work of nature... those arched vaults, with their overhanging stonework, are so beautifully shaped with invisible jointing that you would suppose them the caverns of a lofty mountain, rather than anything man-made.

2) Water: marbles


135 Sid. Apoll. Carm. 22.224-6: “non eget hic cultu, dedit huic natura decorem / nil fictum placuisse placet, non pompa per artem / ulla, resultanti non comet malleus ictu / saxa, nec exesum supplebunt marmora tofum.” Sidonius describes a grotto in the villa of Pontius Leontius, whose vaulted roof the natural spring had formed out of its own rock. Cited in the same context in Coates-Stephens, Porta Maggiore: 46.

136 Cassiod. Var. 4.51.3-4 (Theodoric to Symmachus): “montes facilius cedere putarentur, quam soliditas illa quateretur: quando et moles ipsa sic tota de cautibus fuit, ut praeter artem additam et ipsa quoque naturalis esse crederetur... caveas illas saxis pendentibus aspexitas ita iuncturis absconditis in formas pulcherrimas convenisse, ut cryptas magis excelsi montis crederes quam aliquid fabricatum esse judicares.” Mommsen dates this letter to 507/511 AD. Cassiodorus must be referring to a rugged ruin because much of the outer circuit had already collapsed in the early 5th century (CIL 6: 1191, “theatrum Pompei, [collapso] exteriore ambitu”).
These generative perceptions applied equally to rough stone and smooth. Both scientists and quarrymen claimed that the quarries of Parian and Carrara marble never ran dry because once tapped, they simply “replenished themselves.”

Thus, already a Hellenistic epigram (c. 225/200 BC) about a nymphaeum in the great palace of the Ptolemies at Alexandria introduces the geological nuances of generation and percolation when announcing that its Hymettan marble “spits liquid, receives moisture from the rock and is [itself] moistened.” The poem goes on to explain, furthermore, that the patron has fashioned the marble basin by simply “unleashing the white water-drop of Paros.”

Significantly, these verses were probably written by Poseidippos of Pella, author of one of the earliest surviving lapidaries, the verse Lithika.

137 Strab. 5.2.6. Pliny not only cites Papirius Fabianus that marble grew in the quarries but adds that the quarrymen themselves asserted “that the scars on the mountain fill up of their own accord (“exemptores quoque adfirmao compleri sponte illa montium ulcerae”: HN 36.24.125). Halleux, “Fécondité,” 20.

138 ἀπσάοιοι Μ[...]. δέχομαι γέφιας / ἐς καὶ λάινοι [οὐδὲν ἤθε] ἕκαστο δεμιύλες ὀἴκωι / κτίσμα Πά[γου λευκῆ] ἐκποίήσας σταγώνα / εἰς ἡμισφαίριν τε[αίζας θεσίν. ἡ δὲ λυχνίτις / ζόλη στυλωθεὶς πέζαν ἑινθ τύπου / ἕβαθρό κοίλης ἔντος, ἀποστιλίζει δὲ συνήθει / στεκτή πρὸς πτέρνας, κίονος ἢν θεάς. / ἔκ γα τή στερτόν ξήρως ἐσροιμένης πόμα κρήνης / ἐγέζεχοι σπαλάδων ὕγρα διανομένη. / εἰκόνα δ’ ὑμέτερόν ἐτυπώσατο πίονι λύγιθοι / ποίημα, μέσησαν δ’ ἡμίοσ[ε]ν Ἀρσινόην / σύμχληρων Νύμφαις κατά πάν ἐτος. ἀλλ’ ἐπί πηγήν / τίνηδε μετ’ εὔνοιας βαίνετε Κηφίσαιδες (“Joyfully accept the gift of Ba[...], who also added a vast structure, having unleashed the white water-drop of Paros and formed it into a semi-circle. The Lychnites, whose columns support the rim of the circular frieze, of concave profile and Ionic ornament, and the brightly-colored Syenite glistens at the base. The columns are made thus. The marble of Hymettos, whose mouth spits liquid, receives moisture from the rock and allows itself to be moistened. And he carved your image modelling it softly in an opulent, extremely white marble, and in the middle stands Arsinoe, companion of the nymphs for the whole year round. Come in procession to this fount, oh nymphs of the springs”).

In the hands of a wordsmith like Callistratus (late-third or late-fourth century AD), the play on this watery conceit could allow particularly subtle nuances. Describing a statue of Narcissus, the youth who became enamored of his own reflection in water, he observes:

Whereas the marble was in every part trying to change the real boy so as to match the one in the water, the spring was struggling to match the skilful effects of art in the marble, reproducing in an incorporeal medium the likeness of the corporeal model and enveloping the reflection which came from the statue with the substance of water as though it were the substance of flesh.\textsuperscript{140}

The memory of marble’s liquid birth would be evoked again and again in medieval poetry and ekphrasis (see Chapters 3 and 5) and while it held especially true for white marbles, particular associations invited the idea in colored ones as well. For example, Pausanias tells us “all statues of River Gods are made from white marble, except for the Egyptian Nile. But it is customary to make effigies of the Nile from black stone, because it descends to the sea through Ethiopia.”\textsuperscript{141} Egypt was the fertile “black land,” and the earliest statues of Isis

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\textsuperscript{140} Callistratus, Descriptions 5.3, Loeb ed., trans. A. Fairbanks: ἡ μὲν γὰρ λίθος ὀλὴ πρὸς ἐκεῖνον μετηλαττετο τὸν ἅπαν χάσα, ἢ δὲ πηγὴ πρὸς τὰ ἐν τῇ λίθῳ μηχανήματα τῆς τέχνης ἀντιγράφετο ἐν σάφει τοῖς σχηματαὶ τὴν ἐκ σῶμας ἀπερχαζομένην τοῦ παραδείγματος ὁμοίότητα καὶ τῷ ἐκ τῆς εἰκόνος κατεχόμενω σχισάσματι, οἷον τινὰ σάρκα τὴν τοῦ ῥάτος φύσιν περιθείσα

\textsuperscript{141} Callistratus, Descriptions 5.3, Loeb ed., trans. A. Fairbanks: ή μὲν γὰρ λίθος ὀλὴ πρὸς ἐκεῖνον μετηλαττετο τὸν ἅπαν χάσα, ἢ δὲ πηγὴ πρὸς τὰ ἐν τῇ λίθῳ μηχανήματα τῆς τέχνης ἀντιγράφετο ἐν σάφει τοῖς σχηματαὶ τὴν ἐκ σῶμας ἀπερχαζομένην τοῦ παραδείγματος ὁμοίότητα καὶ τῷ ἐκ τῆς εἰκόνος κατεχόμενω σχισάσματι, οἷον τινὰ σάρκα τὴν τοῦ ῥάτος φύσιν περιθείσα
Chapter 1: Roman Architecture and Sculpture

were in stone as black as the Nile’s silt. Likewise, Tenarian marble (rosso antico) was the marble of choice for sculpture with Bacchic subjects, because the unveined purity of this mellow-red stone immediately evoked the color of wine. Yet, given prevalent geological perceptions, Romans could literally regard it as virtually frozen wine. Such a notion may have been consummated in the Hadrianic fountain-head of Tenarian marble now in the Museo Archeologico Nazionale (figs. 1.29-30), which could once even have gushed wine, although this remains a luxurious hypothesis.143

2) “Living Rock” and Veining

The perceived process of marble’s creation did not stop at its original deposition. In a second stage, all minerals were hardened by fiery exhalations escaping the earth, their relative temperature determining the final color.144 In

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142 Walters, “Black,” 127-34.

143 Museo Nazionale Romano (Palazzo Altemps), Rome, inv. no. 8572: Beatrice Palma and Lucilla De Lachenal, Museo Nazionale Romano. Le Sculture (Rome: De Luca, 1983), vol. 1.5 (I Marmi Ludovisi nel Museo Nazionale Romano): 185-88 (cat. no. 79). Palma cites the hypothesis of Helbig and Geffroy that it was a vapor grill in a bath, and of Paribeni that it was a drain cover. Schneider ingeniously hypothesizes that Tenarian marble may have been selected for a statue of a fluvial deity – an unicum – unearthed at Sessa Aurunca, because of the local water’s origin or because its quality was comparable to wine: Schneider, “Nuove immagini,” 96.

144 Eichholz, Theophrastus: 15-47: According to Theophrastus, stones acquire their “smoothness, solidity, luster and transparency” (τὸ λεῖον καὶ τὸ πυκνὸν καὶ τὸ στιλπνὸν καὶ διάφανον) because the earth becomes “a pure and uniform matter” through “filtering” and “conflux.” “Conflux” apparently means the deposition of purified earthy matter suspended in water. Rain-water percolates particles of earth and stone, down through fissures in the bedrock that trap the coarser increments, into subterranean cavities where they settle into homogenous, micro-granular layers. Thereafter, when subjected to heat or cold, they harden or solidify.

Theophrastus’ theory does not explain the originary generation of the very rocks that he understood to act as filters in the process but, like Aristotle, he may have believed that the earth
the long epoch before quantative science spectators often equated the appearance of minerals with their secret substance, and this appearance either suggested a moment in their evolution or the particular cocktail of their base elements. Color and grain told that various minerals were truly fiery, gassy, earthy, or aqueous. Accordingly, translucent crystal was widely believed to be the product of fierce freezing and fire-veined agate that of intense heat. Moreover, these materials sustained their caloric origins, so that crystal was thought to possess refrigerating properties. Some observers thought marbles blew hot and cold as well: When Basil the Great (c. 329 – 379 AD) describes “houses resplendent with many kinds of marbles” he specifies that roseate Phrygian is used “to radiate heat in winter” while verdant Laconian or Thessalian “provides cooling in summer.” Presumably this perception affected the choice of marbles in winter and summer dining rooms but some baths also followed the principle, allotting cooler marbles to the Frigidarium, hotter ones to the Tepidarium, and blazing porphyry to the Calidarium.

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145 Pliny HN 37.9.23; Strab. 2.3.4.; Sen. QNat. 3.25.12; Diod. Sic. 2.52.1-2; Claudian in Anth. Pal. 9.753-754; Claudian Carm. 56-62. Because crystal was thought capable of preserving cold it was highly favoured for drinking vessels (HN 36.1.2-3): Hans-Peter Bühler, Antike Gefässe aus Edelsteinen (Mainz: Zabern, 1973): 22. Probably for the same reason desert moslems tossed rock-crystal talismans into dry wells: Ludvik Kalus, “Rock-Crystal Talismans against Drought,” in Jewellery and Goldsmithing in the Islamic World, ed. N. Brosh (Jerusalem: The Israel Museum, 1991), 101-04.


147 E.g. Lucian Hipp. 5-6: a “brilliantly lighted hall… in which are three swimming-pools of cold water; it is finished in Laconian marble [serpentine]… on leaving this hall you come into another which is slightly warmed instead of meeting you with a fierce heat… next… is a very bright hall… which had on each side an entrance decorated with Phrygian marble… Then near this is another hall… it is also refugent with Phrygian marble clear to the roof. Next comes the hot corridor, faced with Numidian marble. The hall beyond it [the Calidarium] is very beautiful, full
Flowing marbles were therefore anything but cold and lifeless rocks, and all were as animate as plants or animals. Stones were “born” in the earth, “grew” into “living rock,” had “roots,” were gendered, and some hardstones even enjoyed the potential for sexuality.148 The most obvious example of attraction between stones and their mutual magnetism was, as Pliny says, Lodestone. Likewise, the poet Nonnos (c. 470 AD) points out that when differently sexed flints met, sparks flew.149 Sard and Onyx even mated to produce the race of Sardonyx. Another stone, sarco-phagos, was a real man-eater, consuming body and soul alike, and so bequeathed its name to the whole antique coffin-industry.150 In English, expressions like the “living rock,” “quicklime” (burnt lime that has not yet been slaked with water, or calcium oxide) and “quicksilver” (mercury) preserve this same sense of vitality. Though some stones were mortal (Lucretius speaks of mountains aging until they decay and crumble away; 1.326–27) others, as we have seen, were so vivid that they could regenerate. It is symptomatic that the legal term applied from Cicero to Theodosius to describe

of abundant light and aglow with colour like that of purple hangings [i.e. porphyry].” Loeb. ed. trans. A. M. Harmon.


149 Nonn. Dion. 2.493-494: ὡς λίθος ἀμφὶ λίθῳ φλογερὴν ὡδίνα λοχεύων / λάινον ἵκόντις πολυθλήσις αὐτόγονον πῦρ (“as the female stone is struck by the male stone, one stone on another brings flame to birth”).

150 Plin. HN 2.96.211.
re-used stones (what would later be called “spolia”) was *lapis redivivus*, “stone that lives again.”  

All these geological “facts” have unforeseen implications for sculptural practice as well. It is a commonplace that in antiquity particular stones were used in a straightforwardly mimetic way: that Egyptian schist imitated bronze, that *Bigio morato* depicted the black skin of Africans, or that herms of Dionysus were made from Numidian marble to mimic the saffron robes of his devotees. But because marble enjoyed an autonomous life cycle long before men laid their hands to it, its perceived vitality could elevate the material to the *subject* (or co-author) of the artwork, above and beyond the passive object of artistic intervention. Pliny hints at this exchange and partnership between two creators, between animate material and animator, when he speaks of bronze: to plumb the depth of Athamas’ shame at the infanticide of Learchus, the sculptor Aristonidas “made a blend of copper and iron, in order that the blush of shame should be represented by rust of the iron shining through the brilliant surface of the copper.” The condemnation that the artist Aristonidas had initiated, the statue itself would consummate.


152 A good survey of this phenomenon is found in Schneider, “Nuove immagini,” 88-91, 97. The material pun occasionally extended to names as well. Pescennius Niger (anti-emperor to Septimius Severus in 193-194 AD) was presented with a statue by the Egyptian city of Thebes “carved in Theban marble” (here meaning Basalt) bearing verses in Greek which reported that “black is the surname he bears, and black have we made you, so that form and mineral agree” (“Nigrum nomen habet, nigrum formavimus ipsi, / ut consentiret forma, metalle, tibi”: *S.H.A.* 12.4-6).

153 Pliny *HN* 34.40.140. It is customary to regard Aristonidas’ technique as purely mimetic, but Pliny reveals the ethical score a few lines later: “The same benevolence of Nature has limited the power of iron itself by inflicting on it the penalty of rust, and the same foresight by making
For Pliny all Nature was imbued with a divine spirit and, like the stoics, he conceived Mother Earth as a living body with veins, arteries and entrails.\textsuperscript{154} After the embryonic stone (the earthy particles suspended in liquid mentioned above) had settled in the bowels of the earth, it solidified into a mass through which veins of living water might course. Again, antique authors counterpoised “living water” to rainwater, because the former was born in the earth and flowed through its veins.\textsuperscript{155} Ovid observes this second stage when he recounts how, after the flood, Deucalion and Pyrrha generated a new race of men from the rocks they tossed over their shoulders: these softened to assume fleshiness and “what was lately a vein in the rock kept the same name.”\textsuperscript{156}

This belief supplied further reason for using Phrygian marble in statues of Marsyas, because it imitated his bruised and bloodied flesh after his flaying by the vindictive Apollo (\textbf{fig. 1.31}).\textsuperscript{157} At least one poet decided to put the

\begin{quote}
nothing in the world more mortal than that which is most hostile to mortality.” He refers to knives and weapons, for materials have a commutability and purpose before mimesis is even considered, an echo of the Biblical “beating swords into ploughshares.”
\end{quote}

\textsuperscript{154} “Naturae potentia id est, quod Deum vocamus” (\textit{HN} 2.5.27). Pliny divinized Nature, contrasting \textit{divina natura} with the \textit{imbecillitas humana} of pantheism (\textit{HN} 2.14-27). The Stoics believed the earth was a living body (Sen. \textit{QNat}. 2) and Seneca developed an elaborate analogy between veins and arteries and the earth’s inner channels for water and air (\textit{QNat}. 3.15.1). Pliny talks about the earth’s “vitals” (\textit{viscera}; \textit{HN} 33.1.2), and even calls Italy “pregnant” (\textit{gravida}; \textit{HN} 37.7.202). When the earth is mined and her “vitals” are probed, she “gapes” and “trembles” (\textit{dehiscere… intremescere}; \textit{HN} 33.1.1). See Mary Beagon, \textit{Roman Nature. The Thought of Pliny the Elder} (Oxford: Clarendon Press, 1992): 39-40, 92-102.

\textsuperscript{155} Plumpe, “Vivum Saxum,” 5-6.

\textsuperscript{156} Ov. \textit{Metam}. 1.411: “Quae modo vena fuit, sub eodem nomine mansit.” Cf. Vitruvius, who is not surprised by all the different kinds of water that the earth contains because of the various juices contained in the human body, which is itself only a fragment of this larger whole (\textit{De Arch}. 8.3.26).

achievement of a “Marsyas sculptor” to verse, stressing that art was necessary to complete Nature in distinguishing tree from body, even though both were fashioned from Phrygian marble. While skill extorted the form, Nature provided the opportunity:

Defeated Marsyas hangs from an airy branch
And natural red reveals the constriction of his chest.
A skilled hand has filed the stone into various limbs
The faithful likeness of man and tree shine forth through art.\textsuperscript{158}

Later, Byzantine poems echo the conceit.\textsuperscript{159}

Even in modern Italian, paonazzo can indicate a flushed or bloodshot complexion, and Statius explains the distinctive veining of Phrygian marble (called pavonazzetto since at least the sixteenth century) by imagining that “Attis bedewed [the white marble] with the bright drops of his own blood.”\textsuperscript{160} Thus,

\textsuperscript{158} “Aerio victus dependet Marsya ramo / nativusque probat pectora tensa rubor / docta manus varios lapidem limavit in artus / arboris atque hominis fulget ab arte fides,” Anth. Lat. 162 (173), in Weis, Hanging Marsyas: 27.

Claudian’s poem “On a Statue of a Chariot” pushes the \textit{ex uno lapide} conceit implied here to the limit: “Who had the skill to fashion so many figures out of one block of marble \textit{[uno de marmore]}? The chariot melts into the charioteer; the horses with one common accord obey the same reins. These are distinguishable by their various forms, but made from one and the same material without distinction. The driver is of one piece with the car: to this are attached the steeds, each joined to, and proceeding out of, another. How admirable the artist’s skill! A single block combines within itself all these bodies: one mass of marble by submitting to the chisel has grown into all these various shapes \textit{[una silex tot membra ligat ductusque per artem / mons patiens ferri varios mutatur in artus]}”: Carm. 87, Loeb ed., trans. M. Platnauer.

\textsuperscript{159} Constantine Manasses (late 12\textsuperscript{th}-century) describes a relief of the “Cyclops tearing asunder Odysseus’ companions and eating them… a stone suffused with red… I marvelled at the skill and inventiveness of the craftsman, that, wishing to carve a slaughter and deceive, he cleverly devised the work in suitable fashion, and made its basic [material] of a colour matching the subjects of the carvings, in order that the stone not be engrafted with spurious and alien tints, but should be bathed in blood from its core.” Text: Leo Sternbach, “Beiträge zur Kunstgeschichte,” Jahreshefte des Österreichischen Archäologische Instituts in Wien V (1902): cols. 83-5, ll. 1-6. Trans. Henry Maguire, “Byzantine Art History,” in \textit{Byzantium, a World Civilization}, ed. Angeliki E. Laiou and Henry Maguire (Washington D.C.: Dumbarton Oaks, 1992), 139-40.

\textsuperscript{160} Stat. \textit{Silv.} 1.5.22-23: “purpura, sola cavo Phrygiae quam Synnados antro / ipse cruentavit maculis lucentibus Lucentibus Attis.” Cf. Stat. \textit{Silv.} 2.2.87-89 (Appendix 2.9). Catullus had also described Attis prostrate, “staining the ground around with his shed blood” (“recente terrae sola sanguine maculans,” Carm. 63.7). Presumably Statius was also inspired by the story of Niobe, who had been turned to stone and was identified with a rock on Mount Sipylos near Smyrna (also
this marble was chosen to make a statuette of a genuflecting Attis from a sanctuary in a first-century villa (fig. 1.32).\textsuperscript{161} Attis was a Phrygian, like the marble, but legend also held that his unrequited love for the earth-goddess Cybele had climaxed in a tantrum of self-castration. Because Cybele was worshipped in Phrygia in the shape of a small, black, aniconic stone, it was apposite that Attis should leave his mark on a white one. But the association was not stranded in the world of poetry, because the priests of Attis’ cult (the \textit{Galli}) not only emasculated themselves in commemoration of their hero, but every spring spattered his white altars with offerings of their own blood. However gruesome, this ritual was a well-known sight.

At Docimeion in Asia Minor, where Phrygian marble was quarried, one end of the quarries yielded a fine white statuary marble, the other the type streaked with purple.\textsuperscript{162} The blocks were carefully selected so that, for example, a single block could produce a bust of a patrician lady with both brilliantly white skin and drapery streaked in imitation of a richly woven robe (figs. 1.33-4).\textsuperscript{163} Yet on other occasions, the dichromatic blocks may have been exploited to suggest


\textsuperscript{162} An inventory of Byzantine imperial sarcophagi distinguishes between the two types when it refers to \textit{φοβοποίησιν Δοκιμίνον} (rosy Docimian marble) and \textit{λίθου λευκοῦ Δοκιμίνου} \textit{όνυχίου} (white onyx-like Docimian marble): Glanville Downey, “The Tombs of the Byzantine Emperors at the Church of the Holy Apostles in Constantinople,” \textit{Journal of Hellenic Studies} 79 (1959): 20, 31, 38, 41.

that different stones had mated. Thus, the torso of a second-century *Triton* is white and his coiled dolphin tail purple, not just because their skins differ but because he was the hybrid offspring of Poseidon and the Nereid Amphitrite.\(^{164}\)

The same may hold for a *Europa and the Bull* found at Aphrodisias (fig. 1.35), since the moment portrayed anticipates the unnatural coupling between the chaste Europa and the aroused bull, or Zeus in disguise.\(^{165}\) In other words, the myth in question was already inherent in the genealogy of the block used to represent it.

**Augustus and Colored Marbles: Triumphal Marbles and Geopolitics**

All these examples remind us that Imperial Rome was famed for its colored marbles not just its white ones. Although the Arch of Constantine (dedicated 315 AD) is often still considered a benchmark for the Roman use of colored marble on exteriors, if anything this can be considered a Trajanic taste and there are also much earlier examples.\(^{166}\) One of the earliest is the *rostra* that

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\(^{164}\) Istanbul, Archaeological Museum, inv. 5247 T, unpublished.


\(^{166}\) E.g. Amanda Claridge, *Rome: An Oxford Archaeological Guide* (Oxford: Oxford University Press, 1998): 273: “Another novelty characteristic of the late date is the extensive use of colour.” Cf. Patrizio Pensabene and Clementina Panella, *Arco di Costantino tra archeologia e archeometria* (Rome: Bretschneider, 1999): 40, 48, 63. Some restorers and historians have been so conditioned to this belief that they have ignored the evidence of their own eyes: Vessberg orally reported traces of
Julius Caesar had built in the Forum Romanum in 45–44 BC (figs. 1.36-7), which still retains its panels of Chian marble (*porta santa*) divided by strips of Lucullan (*africano*).\(^{167}\) It was also Caesar’s chief engineer in Gaul, Mamurra, who first supposedly clad the walls of a private house in Rome.\(^{168}\) This taste must have quickly gathered pace because, in 48/45 BC, Caesar devised new revenues by instituting a tax (the *columnarium*) on every column that was imported into Rome.\(^{169}\) But it was Augustus who definitively accelerated the use of marbles in public settings and who initiated an imperial procurement system that left little leeway for entrepreneurs.\(^{170}\) It was also Augustus’ engineers who prospected a palette so diverse that the geographer Strabo would exclaim, around 7 BC, that white marble had begun to lose any value.\(^{171}\) A more discreet indicator of this

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\(^{168}\) Pliny *HN* 36.7.48. See Chapter 2.


\(^{171}\) Fant, “Augustus,” 276-80; Strab. 9.5.16; 12.8.14.
increasing taste is that although snowy stones had assumed a dominant key in Augustan poetry, they ceased to do so after his reign.

In fact, even if the temples Augustus built or completed were predominantly white, their interiors were lavishly colored with the whole gamut of marbles now arriving from Greece, Asia and Africa. Many, like those of Apollo Sosianus (34/29 BC?), Concordia (10 AD), Mars Ultor (42-2 BC), and probably also Agrippa’s original Pantheon (27-25 BC), were not just shrines but accessible museums, virtually national galleries of looted art. And these treasuries deserved brilliant halls both to meet the new demands of display and honor the gods who had brought Rome such good fortune. Their richly colored revetment and proliferating columns hardly resulted from structural exigencies. Although the remains are scanty, we can guess their appearance from excavated fragments, and from fictive representations in the cellae of the Capitolia at Pompei and Brescia (89/75 BC; fig. 1.38).

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Public Buildings and Imperial Marbles

On the public stage, there was no sating the growing appetite for ever more diverse marbles. Apart from temples, the earliest monument lavishly to employ colored marbles was the Basilica Aemilia, on whose second storey (rebuilt 14 BC) colossal statues of Phrygians assumed poses of balletic support (fig. 1.39). These petrified captives were hewn from Phrygian and Numidian marble and Rudolph Schneider has exhaustively argued that their foreign presence materially embodied the recent subjugation of the states from which the stones originated, Anatolia and Africa respectively. Others have argued that such material iconography also underlay Augustus’ use of the same marbles in his new Forum Augusti, where a message of vengeance would have reached fever pitch when the public glimpsed the standards recaptured from Parthia and rededicated within the temple cella. The Phrygians here, then, would actually have to represent Parthians, commemorating Augustus’ putative subjugation of Parthia in 20 BC, and this triumphal message was supposedly consummated in the base of a monumental tripod of submissively genuflecting barbarians in identical materials (fig. 1.40). A similar agenda of triumphalism is generally


175 Fant, “Augustus,” 278; Ganzert, Mars-Ultor-Tempel. Carystian marble from Greece is also very extensively used in the Forum of Augustus, but Fant and Ganzert do not mention it in their analyses, perhaps because it does not fit their argument.
attributed to the marbles of the adjoining Forum of Trajan (106-113 AD), where
the parade of colossal captives in porphyry, Phrygian and Numidian marbles
would now celebrate the emperor’s conquest of Dacia. The more that such
 triumphal marbles were deployed, the argument continues, the more the
unimaginable extent of Rome's new dominion was visibly summarized.

These arguments are persuasive for the Augustan period, but if marble’s
geopolitical symbolism persisted during the High Empire, by which time the
shock of the new materials had long worn off, its expression must have become
grammatical. In actual fact, no writer from this period talks about marbles in
these terms. The only text that might is much later, desperately nostalgic and –

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176 The Greek marble of Metellus’ temple may itself be considered victory spoil: Leena Petilä-
Castrén, Magnificentia publica: The Victory Monuments of the Roman Generals in the Era of the Punic
Wars (Helsinki: Societas Scientiarum Fennica, 1987): 132. Holscher and Schneider argue that such
symbolism began as early as 91 BC, when King Bocchus I of Mauretania erected a victory
monument on the Capitoline portraying himself handing over Jugurtha to Sulla, and on a grey
limestone base (Plut. Mar. 32.2; Sull. 3.1, 5.1, 6.1-2), which they assert came from Numidia: Tonio
Hölscher, “Historische Reliefs,” in Kaiser Augustus und die verlorene Republik, ed. Mathias Hohler
(Mainz am Rhein: Zabern, 1988), 384-86 (cat. nos. 214-16); Schneider, Bunte Barbaren: 145-46.
Similarly, Fant argues that the twenty-foot, Numidian marble, memorial column erected to
Caesar in the Forum Romanum (Suet. Iul. 85) commemorated his supposed victory over Numidia
and formation of the new province of Africa Nova: J. Clayton Fant, “Ideology, Gift and Trade: A
Distribution Model for the Roman Imperial Marbles,” in The Inscribed Economy. Production and
distribution in the Roman Empire in the Light of instrumentum domesticum, ed. William V. Harris
(Ann Arbor, MI: University of Michigan, 1993), 147; Fant, “Augustus,” 278-79. For a skeptical
response: Barry, Review.

177 Marc Waelkens, “From a Phrygian Quarry: The Provenance of the Statues of the Dacian
Schneider, “Die Faszination des Feindes: Bilder der Parther und des Orients in Rom,” in Das

178 Patrizio Pensabene, “Il fenomeno del marmo nella Roma tardo-repubblicana e imperiale,” in
Marmi antichi II: Cate e tecnica di lavorazione, provenienze e distribuzione, ed. Patrizio Pensabene
(Rome: Bretschneider, 1989), 333-90; Patrizio Pensabene, “Amministrazione dei marmi e sistema
distributivo nel mondo romano,” in Marmi antichi, ed. Gabriele Borghini (Rome: De Luca, 1990),
43-54; De Nuccio and Ungaro, eds., Marmi, passim; Marc Waelkens et al., “Polychrome
Architecture at Sagalassos (Pisidia) during the Hellenistic and Imperial Period against the
Barry, Review.

179 Unless Ovid intends this idea when he describes the Porticus Octaviae as “externo marmore
dives opus” (Ars Am. 1.70), that is “a work rich in foreign marble” (rather than “a work rich with
marble coating”).
oddly – never quoted: Sidonius Apollinaris (c. 430-479/80) describes the throne of Roma as constructed from four marbles, possibly indicating the four quarters, “so that when she had seated herself on the throne in the midst, the whole earth flocked to her all at once” (Appendix 1.4). Sidonius was Praefectus Urbis (470 AD) before becoming bishop of Clermont-Ferrand, and his audience hall was just off the Forum Romanum, so he may well have had the capital’s marbles in mind. Nonetheless, this triumphalist view of colored marbles is all too vulnerable to semantic determinism (the attribution of too exclusive a range of meaning), and deserves greater nuancing. For example, Cohon argues that a Phrygian marble throne accommodating a seated Augustus in white marble again alluded to his control over the East (on which he is sitting, one imagines), although it is equally arguable that the stone was used for its own preciousness.

Indeed, before porphyry became king Phrygian had shared pride of place in Roman marble exhibitionism. Shot through with purple, Phrygian was one

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1 Sidonius itemizes marbles from Ethiopia, Numidia, Greece and Asia, which roughly correspond to equidistant quarters. The marbles of the Pantheon come from the same areas: Mark Wilson Jones, Principles of Roman Architecture (New Haven, Conn./London: Yale University Press, 2000): 184. Note also that the Villa of the Gordians (c. 238-244 AD) contained “two hundred columns in the inner court, fifty in Carya marble, fifty Claudian, fifty Synnadean and fifty Numidian, all equal in size” (S.H.A. Gordiani tres 32.2). Here the mix was identical and the colors green, grey, purplish and yellow. A possible comparandum to the idea of the throne of Roma is the Cosmic throne of mercy in the Qur’an, which is described as having four columns of light, white, yellow, red, green, each corresponding to an archangel: Jane Jakeman, “Abstract Art and Communication in ‘Mamluk’ architecture” (D.Phil., University of Oxford, 1993), 90-91. A different number symbolism is at work in Sid. Apoll. Carn. 11.17-18, because the poet has added white Parian: “Here is stone from five regions, giving five colours / Ethiopian, Phrygian, Parian, Punic and Spartan / purple, green, mottled, ivory and white.”


of the most costly marbles in circulation and, therefore, the target for special abuse from the first to fourth centuries. Horace adds it to the catalogue of purple horrors that closes his ode to simplicity, Juvenal itemizes it when he ridicules the house of the millionaire Licinus, Ovid’s Dido finds craggy caves preferable to it, and Ausonius exalts sandy shores over any Phrygian pavement.\textsuperscript{183}

Likewise, while the Dacians in Trajan’s Forum were all carved from frontier stones, these same minerals were luxury goods that intimated luxury fabrics: embroidered robes, cloth of gold and Tyrolean-dyed tunics (Phrygian, Numidian and porphyry). Not coincidentally, in late-antique Latin the word regularly used for marble panels, \textit{crusta}, also indicated a fabric richly woven, embroidered and jeweled (cf. \textbf{fig. 1.34}).\textsuperscript{184} Moreover, the extensive quarrying of porphyry from the Hadrianic era onwards actually coincided with the most intensive exploitation of purple dye.\textsuperscript{185} Ever after, any emperor, pope or cardinal

\begin{thebibliography}{9}
\bibitem{} 183 Hor. \textit{Carm.} 3.1.41-46: “quodsi dolentem nec Phrygius lapis / nec purpurarum sidere clarior / delenit usus nec Falerna / vitis Achaemeniumque costum / cur invidendis postibus et novo/sublime ritu moliar atrium?” (“but if neither Phrygian marble nor purple brighter than the stars nor Falernian wine nor Persian nard can soothe one in distress, why should I raise a lofty hall with columns to be envied?”). Juv. 14.305-308: “dispositis praedives amis vigilare cohortem / servorum noctu Licinus iubet, attonitus pro / electro signisque suis Phrygiaque columna / atque ebore et lata testudine” (“the millionaire Licinius orders a cohort of slaves to keep watch at night with their fire-buckets ready, being anxious for his amber, statues, and Phrygian columns, his ivory and tortoise-shell plaques”). Cf. Ov. \textit{Epist.} 15.141-142: “Antra vident oculi scabro pendentia / Quae mihi Mygdonii marmoris instar erant” (“There I behold the caves beset with rugged cliffs, which to me were the very image of Phrygian marble”); Auson. Mos. 48-54 (appendix 2.11).


\bibitem{} 185 Porphyry resembles Imperial Purple, which was actually closer to the blood-red stone than our “purple.” The Roman identification of purple with royalty occurred during the late republic, thanks to two symmetrically opposing agendas. Pro-Caesarians argued that because purple had been a prerogative of the Roman kings it legitimized Caesar’s use of the luxury. Anti-Caesarians, like Cicero, instead identified the color with Hellenistic monarchy: Meyer Reinhold, \textit{The History of Purple as a Status Symbol in Antiquity} (Brussels: Latomus. Revue d’Études Latines, 1970): 37-47, 55; Luigi Bessone, “La porpora a Roma,” in \textit{La Porpora. Realtà e immaginario di un colore simbolico}, ed. Oddone Longo (Venice: Istituto Veneto di Scienze Lettere ed Arti, 1998), 149-202, and other essays there. Porphyry has received more attention than any other marble or granite: Richard Delbrück, \textit{Antike Porphyrwerke} (Berlin: Wilhelm de Gruyter, 1932); Michel Andrieu, “La Rota
raised to the purple, would exploit the stone for this immediate association, and they found it a fair winding sheet as well.\textsuperscript{186} For similar reasons, although real porphyry was beyond the reach of the city of Meninx (Tunisia), the epicenter of Tyrolean dye-production, purplish limestones were used in its lieu to adorn the barbarians of her forum basilica (Trajanic-Antonine).\textsuperscript{187} Indeed, building inscriptions elsewhere spell out such substitutions.\textsuperscript{188} It follows that the aristocracy of stones in Trajan’s Forum could also have stood for the \textit{purpurati} of foreign lands, not the soldiery or commons, with the overall implication that Trajan (or Augustus for that matter) was a prince over princes.\textsuperscript{189}

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\textsuperscript{188} A late 2\textsuperscript{nd} - or 3\textsuperscript{rd} -century epigram from Sagalassos, on a relief of gladiatorial combat, concludes, “as for the monument itself, even if art through skill wishes to show that this is Phrygian stone, it deceives: for the stone has grown in this land” (ση μα δε, κει τεχνα φυσιν γιον λιθου έδεξε μελετη[γει], / ποιεστα, κε γα(ι)η τη σε δε τερυμε λιθο): Louis Robert, \textit{Les gladiator\`es dans l’orient grec} (Paris: E. Champion, 1940): no. 98 (ll. 11-12); Robert, “Kordakia,” 82-83 and notes 61-65. On Sagalassos: Waelkens et al., “Polychrome Architecture,” 517-30.

\textsuperscript{189} Morton points out that in the Flavian triumph in Jerusalem of 70 AD, not only the emperor but also his entourage wore purple, and the captives were richly adorned (Joseph. BJ 7.123-138). The same may have been true for Trajan’s triumph. In this light, Morton argues that the parade of captive statues in the Fora would have represented a permanent triumph.
Even if such variegated display did map the empire, it mapped the fertile lands she encompassed and, for the same reasons, a later empire would mine the mineral wealth of her dominion for museum-display in London. Bringing marbles to Rome from the provinces was much like bringing wheat from Egypt, lions from Africa, or any of the numerous wines whose origins Horace loves to list. Conversely, the *Pax Romana* ensured that the same counters of wealth and dominion traversed the Empire from one boundary to another, as marbles found from Crete to Britain demonstrate, establishing an endless commonwealth dealt in the same coin wherever one went. Eventually, by the reign of Trajan’s successor, Hadrian, Roman material vocabulary had departed so far from its Greek origins that this philhellenic emperor even exported massive amounts of Phrygian marble to Athens. Two centuries earlier, this would have meant carrying coals to Newcastle.

Furthermore, if marble display was “the physical embodiment of empire and the capacity of the imperial regime literally to move mountains,” these

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190 A Museum of Practical Geology was founded in London in 1851 thanks, in Prince Albert’s words, to the “immense mineral riches granted by the bounty of Providence to our isles, and their numerous colonial dependencies.” Richard Owen, addressing the British Association for the Advancement of Science in 1858 declared, “our colonies include parts of the earth where the forms of plants and animals [and minerals] are the most strange… Naturalists consequently visit England anticipating to find in her capital and in her National Museum the richest and most varied materials for their comparison and deductions”: Carla Yanni, *Nature’s Museums: Victorian Science and the Architecture of Display* (Baltimore: Johns Hopkins University Press, 1999): 52, 114.


192 Paus. 1.18.9.
efforts were as much a victory over Nature as over barbarians, and some writers employ the same idioms whether discussing quarrying or war.\textsuperscript{194} For emperor and soldier, Nature could be tamed and vanquished like a new province, but for philosophers and naturalists this exploitation represented defilement and mutilation.\textsuperscript{195} Pliny feared that extensive quarrying equaled vivisection, undermining the mountains that clamped together a seething and brewing earth (Appendix 1.1).\textsuperscript{196} While Ovid lightheartedly quipped that the mountains “were shrinking” thanks to marble quarrying, Pliny’s sour riposte was that, since marbles could supposedly regenerate, “there is reason to hope that there will always be marble sufficient to satisfy luxury demands.”\textsuperscript{197} Ultimately, the power “to tame” (\textit{domare}) the mountains signified an overwhelming force of such primeval dimensions that, long after recycling building materials had become habit, some citizens still felt it necessary to specify that they had beautified their cities with stone “cut from the mountains, and not removed from ruined monuments.”\textsuperscript{198} In the same light, it is also easier to understand why fourth- and

\textsuperscript{193} Claridge, \textit{Rome}: 38.

\textsuperscript{194} Schneider, \textit{Bunte Barbaren}: 137-38, 150-52; Schneider, “Coloured Marble,” 6.


\textsuperscript{198} In 333 AD, Barbarius Pompeianus declared that he had beautified his Abella, Campania, “silicibus e montibus excisis non e dirutis monumentis adventis” (CIL X, 1199), cited in Bryan Ward-Perkins, “Re-using the Architectural Legacy of the Past, \textit{entre idéologie et pragmatisme},” in \textit{The Idea and Ideal of the Town between Late Antiquity and the Early Middle Ages}, ed. Pietro Brogiolo Gian and Bryan Ward-Perkins (Leiden: Brill, 1999), 231.
fifth-century emperors would eventually mobilize against spoliation. Spoliation meant that the Empire was visibly ailing, its provinces splintering, and the stones in its frontier walls loosening under the pressure of the marauding hoardes. In Rome itself, by the late fourth century, spoliation was even capable of provoking public riots.

If the panoply of marbles available in the first century had testified to the empire’s extent, by the fifth increasing shortages made visible its decline. Thus, when Zosimus (early sixth century) describes the fire that destroyed the Senate-House in Constantinople in 404 AD he emphasizes that it was “a beautiful and lavish building adorned with... marble in many colors no longer quarried.” Since this writer’s militantly pagan New History aimed at exposing how Christianized Romans had lost their empire in less time than it had originally taken to acquire, the loss of the stones implied the loss of the provinces.

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200 When the Praefectus Urbis Lampadius robbed materials from standing buildings in Rome: Amm. Marc. 27.3.8-10; cited in Robert Coates-Stephens, “Attitudes to Spolia in Some Late Antique Texts,” in Theory and Practice in Late Antique Archaeology, ed. Luke Lavan and William Bowden (Leiden: Brill, 2002), 350.


Appendix 1

1) Pliny on Quarrying and the Destruction of Nature 77/79 AD

[1] Lapidum natura restat, hoc est praeceps morum insania, etiam ut gemmae cum sucinis atque crystallinis murrinisque sileantur. omnia namque, quae usque ad hoc volumen tractavimus, hominum genita causa videri possunt: montes natura sibi fecerat ut quasdam compages telluris visceribus densandis, simul ad fluminum impetus domandos fluctusque frangendos ac minime quietas partes coercendas durissima sui materia, caedimus hostrahimusque nulla alia quam deliciarum causa, quos transcendisse quoque mirum fuit.

[2] In portento prope maiores habuere Alpes ab Hannibale exsuperatas et postea a Cimbria: nunc ipsae caeduntur in mille genera marmorum. promunturia aperiuntur mari, et rerum natura agitur in planum; evehimus ea, quae separandis gentibus pro terminis constituta erant, navesque marmorum causa fiunt, ac per fluctus, saevissimam rerum naturae partem, huc illuc portantur iuga, maiore etiamnum venia quam cum ad frigidos potus vas petitur in nubila caeloque proximae rupes cavantur, ut bibatur glacie.

[3] secum quisque cogitet, et quae pretia horum audiat, quas vehi trahique moles videat, et quam sine iis mutilorum sit beatior vita. ista facere, immo verius pati mortales quos ob usus quasve ad voluptates alias nisi ut inter maculas lapidum iaceant, ceu vero non tenebris noctium, dimidia parte vitae cuiusque, gaudia haec auferentibus!

It remains for us to deal with the nature of stones, or in other words, the prime folly in our behavior, to be considered as such even though no reference be made to gems, amber and vessels of rock-crystal and fluorspar. For everything that we have invested up to the present volume may be deemed to have been created for the benefit of mankind. Mountains, however, were made by nature for herself to serve as a kind of framework for holding firmly together the inner parts of the earth, and at the same time to enable her to subdue the violence of rivers, to break the force of the heavy seas so as to curb with her most restless elements the hardest material of which she is made. We smash these mountains and haul them away for no other reason than that our pleasure dictates it; and yet there was a time when it seemed remarkable even to have succeeded in crossing them. Our forefathers considered the scaling of the Alps by Hannibal and later by the Cimbri to be almost unnatural. Now these selfsame Alps are quarried into marble of a thousand varieties. Headlands are laid open to the sea, and nature is flattened. We remove the barriers created to serve as the boundaries of nations, and ships are built specially for marble. And so, over the waves of the sea, nature’s wildest element, mountain ranges are transported to and fro, and even then with greater justification than we can find for climbing to the clouds in search of vessels to keep our drinks cool, and for hollowing out rocks that almost reach the heavens, so that we make drink from ice. When we hear of the prices paid for such vessels, when we see the masses of marble that are being conveyed or hauled, we should each of us reflect, and at the same time think how much more happily many people live without them. Oh that men should do such things, or rather endure them for no other purpose or pleasure than to recline amid colored marbles, just as if these delights were not taken away from us by the darkness of night, which is half our life’s span!

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2) Aelius Aristeides, *Panegyric on the Temple at Cyzicus*, 166 AD

I am close to declaring that you have shown all men who have attempted works to be like children, by having erected a work so great that it would have seemed to an act of madness to have conceived and beyond the power of man to accomplish it.

(17) One would be uncertain as to whether most of the island has been transferred here or remains in its place... Formerly sailors used to judge their position by the peaks of the islands, “Here is Cyzicus,” “This is Proconnesus,” and whatever other island one beheld. But now the temple is equal to the mountains, and you alone have no need of beacons, signal fires, and towers for those putting into port. But the temple fills every vista, and at the same time reveals the city and the magnanimity of its inhabitants. And although it is so great, its beauty exceeds its size.

(18) If Homer and Hesiod had happened to be alive, I think that they would have readily transferred to here the tale about the Trojan wall and would have told how Poseidon and Apollo jointly designed and fashioned this work for the city, the former by providing rock from the depths of the sea and at the same time making it possible for it to be brought here, and the latter through his desire to adorn the city with such a great addition, as it is likely that a founder would do.

(19) You would say that each of the stones was meant to be the whole temple, and the temple the whole precinct, and again that the temple precinct was big enough to be a whole city.

These adornments of construction are fair and exercise a remarkable persuasion over the masses. But what is perfect and truly the gift of some god occurs whenever both adornments are in harmony, that in the soul and that in construction.

For just as we praise the harmony in the latter and the fact that each element preserves its proper relationship, so it is fitting to think that a well-lived life takes place whenever harmony and order prevail throughout. This adornment is truly proper to cities. This preserves both individual man and city.

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3) Inscription on Mausoleum of T. Flavius Secundus, Colonia Flavia Cillium (Kasserine, Tunisia), c. 150 AD

See, a recent filial gesture, which will meet with total approval, deserves a great mass of fame and praise, a gesture pregnant with a novel precedent; Flavius Secundus, acting in his father’s style, has marked that gesture with a lofty mark of honor. Who would decline to approve this with the support of the noble instincts of the mind, who would not admire this work, who, as he sees riches poured out, would not be amazed at beholding such wealth, by means of which the monument rises through the breezes of the ether? This is the use of wealth which deserves higher praise, this is how spending creates an everlasting abode, this is how money finds a way to acquire eternal merit, when in stability it is grounded in a use that lasts for ever.

Let that madness see to itself which is swayed by over-much gold, which the brightness of silver bought with blood drags captive; let the vagrant vanity of extravagance which has learned to to seek at great cost foreign attire and gems which seduce with their brightness, or gifts coming from the Indian Ocean, that extravagance which is corrupted by the peoples of the world with their rival commodities, Greece with young slaves, Spain with fruits of Pallas, Libya with wild beasts hunted down and the Near East with its amomum, Egypt with cheeky Alexandrian slaves, Gaul with works of art which it produces with communal pride, rich Campania with wine. These things swiftly fade and carry but a brief meed of attractiveness, condemned by their own quick passing; but if one considers all the hazards of life and strives to measure man by his brief span, then he will learn to believe that nothing better is achieved than what is able to last long in vigorous aging, with respect for the gods.

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Chapter 1: Roman Architecture and Sculpture

38 Nunc ego non dubitem tacitis Acherontis in umbris
si post fata manent sensus, gaudere parentem
saepè, Secunde, tuum, reliquas et spernere turmas,
quod sciát hic tantam faciem superesse sepulchri
perpetua novitate sui, sic stare nitentes
consensus lapidum, sic de radice levatos
in melius crevisse gradus, ut et angulus
omnis sic quasi mollitae ductus sit stamine cerae.
Mobilibus signis hilaris sculptra n[ov]atur
Et licet atsidue probet hos vaga turba
d[e]cores
Lucentes stpeat pariter pendere columnas.

[...]
Sed revocat me cura operis celsiq(ue)
decores.
Stat sublimis honor vicinaq(ue) nubila pulsat
et solis metitur iter. Si iungere montes
forte velint oculi, vincuntur in ordine colles;
si videas campos, infra iacet abdita tellus.
Non sic Romuleas exire colossos in arces
dicitur propter Bellona tropaeum
exstruit et quercum captivo pondere curvat.
Aethiopus de monte cadunt, ubi sole
consurgit solium saxis quae caesa rubenti
nativa exustas adflavit purpura rupes.
incit turba Synnas, Nomadum lapis additur
avity nec sic sistrigeri demonstrat pervia Nili
dum sua perspicuis aperit Pharos aequora
flamis.

Now if sensation survives after death, I would not
doubt that your father, Secundus, in the silent
shades of Acheron often rejoices and spurns the
other groups of ghosts because he realises that
here on earth there remains this impressive tomb
in its eternal newness. That thus the shining stones
perfectly cohere, that as the steps rise from their
root they have grown finer, so that every corner
has been traced as if with the stuff of malleable wax.

Sprightly sculpture constitutes an innovation in a
mobile effigy and the crowd passing by can
continually applaud these adornments and be
amazed at the matching columns that gleam
overhead.

But I am called back by consideration of the work
and its lofty beauties. Its impressiveness reaches
into the sky, impinges on the neighboring clouds
and measures the course of the sun. If the eyes
should happen to desire to survey the hills one
after the other, each summit in its turn is
dominated: if you should view the plains, the
ground lies thrust far below. No match for this
colossus said to be level with the hills of Rome or
the obelisk of the circus said to reach into the air,
or the lighthouse which points out the channels of
the sistrum-rattling Nile while disclosing the
waters around with its far-visible flames.

4) Sidonius Apollinaris, The Throne of Rome, c. 460 AD

propter Bellona tropaeum
exstruit et quercum captivo pondere curvat.
consurgit solium saxis quae caesa rubenti
Aethiopum de monte cadunt, ubi sole
propinquo
nativa exustas adflavit purpura rupes.
incit turba Synnas, Nomadum lapis additur
istant
antiquum mentitus ebur; post caute
Laconum
marmoris herboi radians interviret ordo.
Ergo ut se mediam solio dedit, advolat omnis
terra simul.

nearby Bellona built a trophy
and bent the oak tree under its weighty spoils.
The lofty throne was fashioned of stones that are cut
and lowered from the roseate Ethiopian mount, where
a natural purple dyes the crags seared by the nearing
sun. Here Synnadian, there Numidian marble (that
counterfeits old ivory) was added; after these the
grass-hued marble from Laconian scaur interposed a
row of radiant green.
So when she had seated herself on the throne in the
midst, the whole earth flocked to her all at once.

206 Carm. 5.32-41 ("Panegyric on Maioranus").
Chapter 2
Homes fit for Heroes: Luxuria and Divinity in the Domus

Luxuria

The marble monopoly that Augustus and his successors gradually imposed ensured that no private contenders could outshine them in the city’s public commissions. Augustus’ drive to clad all Rome with imported marbles also reclaimed for public magnificence a material that had become morally tarnished by displays of private opulence, and his initiative appeased the guardians of Roman morals by sanitizing a corrupting luxury. 1 With the provinces newly acquired during the late Republic had come an influx of costly and exquisite paintings, bronzes, fabrics, and finally marbles that had awakened Rome’s élite to foreign opulence. The Romans soon absorbed and metabolized these influences into their own art forms, but later writers were appalled that the clear streams of Roman modesty had been polluted by these eastern vices. 2

Stolid, rural values combined with fierce, self-sacrificial militarism were sacred cows of the Roman self-image. They cherished the tale of Cincinnatus returning to his plough and the grimy humility enshrined in Scipio’s dismal home at Liternum, and these were the chords that Seneca struck when he contrasted the

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1 For Augustus’ gradual monopolization of evergetism in the capital, which included “erecting all the public buildings, except those monuments that the Senate and people raised in his honour”: Paul Veyne, Bread and Circuses. Historical Sociology and Political Pluralism, trans. Brian Pearce (London: Allen Lane 1990, 1990): 386-90. For the Aristotelian origins of magnificence (megaloprepeia), the euergetic beneficence by an individual to the community: Veyne, Bread: 14-18.

2 Many sources in Heinrich Drerup, Zum Ausstattungsluxus in der römischen Architektur: ein formgeschichtlicher Versuch (Münster: Aschendorffsche Verlagbuchhandlung, 1957). The charge was old: [Plato], Eryxias, 394e: “Or is it that men look down upon this [wisdom] and there are no buyers, while many, needing and desiring cypress wood and Pentelic marble for the house, buy these?” An epigram by Phoenix of Colophon (c. 225/200 BC) vents on a palace clad in “Smaragdian stone”: John U. Powell, ed., Collectanea Alexandrina (Oxford: Clarendon Press, 1925), 235-36, frg. 6.
latter with the modern vice for marbles (Appendix 2.4). For writers of his ilk magnificence and luxury were antonyms, the first denoting public service and decorum, the second personal ambition and social transgression. “The Roman people disapproves of private luxury, but admires public magnificence,” Cicero had bravely asserted in the face of all evidence to the contrary.³

The magnificent homes with marble floors and gilded ceilings that he condemned had been all the rage in Rome since the early second century BC when Cato (234-149 BC) had inveighed against pavements in Numidian marble and ivory and citrus-wood trimmings.⁴ The diffusion of such luxuries was gradual but the literary tracts of later moralizers like Pliny and Seneca, who railed pitilessly against marble luxury with varying degrees of vim and wit, settled on a list of bogeymen responsible for ushering in the excesses. According to these, the consul Marcus Lepidus raised the bar in 78 BC by installing thresholds of yellow, Numidian marble in his town house.⁵ A modest concession to luxury perhaps, but in the eyes of conservative zealots it seemed as though Lepidus would not hesitate to trample gold underfoot. This was just the thin end of the wedge, and four years later the consul L. Licinius Lucullus was lambasted

³ Cic. Mur. 76: “Odit populus Romanus privatam luxuriam, publicam magnificentiam diligit.” The antithesis between magnificentia and luxuria became so ingrained “that Tacitus could suggest the vice by the context in which he used the virtue” (Tac. Hist. 2.5, Ann. 3.55 and 15.48): Janet DeLaine, “The Temple of Hadrian at Cyzicus and Roman Attitudes to Exceptional Construction,” Papers of the British School at Rome 70 (2002): 224, and note 90.

⁴ “Punic Pavements: Cato intends [floors] paved with Numidian marble, when he says... “I can say that villas and buildings, which are built and polished with the utmost artistry in citrus and ebony work and with pavements, are Punic” (“Pavimenta Poenica: marmore Numidico constrata significat Cato, cum ait... ‘Dicere possum, quibus villae atque aedes aedificatae atque expolitae maximo opere citro atque ebore atque pavimentis †Poenicii stent†’: Wallace M. Lindsay, ed., Sexti Pompei Festi De Verborum Significatu (Leipzig: B. G. Teubner, 1913), 282); Gnoli, 139. Cic. Leg. 2.2: “magnificasque villas et pavimenta marmorea et laqueata tecta condemno.”

⁵ Pliny HN 36.8.49, esp. “in massa ac vilissimo liminum usu.”
as “Xerxes in a toga” for importing so much marble for domestic consumption that this foreign stone now even took the name of a Roman citizen: *Marmor Luculleum*.\(^6\) Private luxury proliferated in such leaps and bounds, in fact, that within thirty years Lepidus’ house could not even enter the top hundred in Rome’s most beautiful homes.\(^7\) Another century on the taste for marble had become such a mania that Seneca ranted that the world was upside down, with Rome’s citizens consumed by marble frippery while the Urbs itself teetered on the brink of ruin.\(^8\)

It was, however, the aedile Scaurus who became everybody’s whipping-post for luxury and whose construction “insanity,” Pliny exaggerated, had excelled Nero’s. Pliny’s grievance was that, in 58 BC, Scaurus had installed four 38-feet-high, monolithic columns in the atrium of his own home.\(^9\) Scaurus had been prosecuted for embezzling funds from the Province of Sardinia, so his domestic magnificence seemed to mirror his inner corruption.\(^10\) Growing

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\(^6\) Pliny *HN* 36.8.49-50. Vell. Pat. 2.33.4: “Xerxes togatus.” Lucullus also introduced the cherry to Rome from Pontus (*HN* 15.30.102). On this marble: Angelina Dworakowska, “Once Again on Marble Luculleum,” in *Marble: Art Historical and Scientific Perspectives on Ancient Sculpture* (Malibu: J. Paul Getty Museum, 1990), 253-62. Its identity as *africano* and provenance from Teos are now generally accepted, although this conclusion is not unequivocal: Dworakowska sees a discrepancy between its price in the Edict of Diocletian and that of other Greek island marbles. But the edict dates from 301 AD, whilst the quarry was apparently worked out by c. 170 AD, so *marmor luculleum* may have commanded high prices precisely because it had become a rarity.

\(^7\) Pliny *HN* 36.24.109-110.

\(^8\) Sen. *De Ira* 3.35.5: “These same eyes forsooth, that cannot tolerate marble unless it is mottled and polished with recent rubbing, that cannot tolerate a table unless it is marked by a vein, that at home would see under foot only pavements more costly than gold – these eyes when outside will behold, all unmoved, rough and muddy paths... and tenement walls crumbled and cracked and out of plumb. Why is it, then, that we are not offended on the street, yet are annoyed at home?” (Loeb ed., trans. J. W. Basore).

opulence not only suggested a disregard for Republican virtues but broadcast the capacity for largesse, thereby political wherewithal, and so ultimately an open gate to tyranny. Seneca balked at even discussing the marble luxuries in the baths of freedmen. Luxurious marble had become a medium for subversion whereby freedmen acted like patricians, patricians like despots, and despots like gods.

Seneca, Pliny and Lucan wrote decades, even centuries, after the introduction of the adornments they vilified, and it must have been obvious to all that they were striving to lock the stable of a horse that had long bolted.

Moreover, Lucan’s ambiguous attack on the safe target of Cleopatra’s palace (Appendix 2.1) echoes the diatribes of his uncle, Seneca, against the excesses of more contemporary Romans. Both authors were almost certainly displacing the blame. Since both uncle and nephew were compelled to commit suicide by Nero, and since Nero’s Domus Aurea was an infamous money-pot of luxuries, it is questionable whether their veiled target was not, in fact, the emperor himself.

10 This may be the same reason that Pliny credits Mamurra with introducing revetment to Rome (HN 36.7.48). His corruption was notorious enough to be the subject of poems by Catullus (27, 54).

11 Such snobbery infects Pliny’s judgment on Mamurra, a knight, writing “the outrage [of his marble use] was the worse because of [the status of he] who contrived it” (“ne quid indignitate desit, tali auctore inventa re;” HN 36.7.48).

12 Frédéric L. Bastet, “Lucain et les arts,” Entretiens sur l’antiquité classique 15 (1970): 144. Seneca was himself very wealthy. For his attitude to wealth and luxury: Miriam T. Griffin, Seneca: A Philosopher in Politics (Oxford: Clarendon Press, 1976): 286-314. He had been Nero’s tutor but his Epistulae morales were written after his retirement from court in 62, ep. 94 and 115 perhaps in Autumn 64, and his De beneficiis sometime between 56 and 64: Griffin, Seneca: 399, 400. He also praised magnificence when it was to the public benefit: “Agrippa… who reared in the city so many mighty works that not only surpassed all former grandeur, but later could be surpassed by none” (“Agrippa… qui tot in urbe maxima opera excitavit, quae et priorem magnificentiam vincerent et nulla postea vincerentur”: Ben. 3.32.4). Luxury could even be used to good ends: “all those things which both luxury-lovers and the ignorant do, the wise man do also, though not in the same way and not to the same end” (“Omnia, quae luxurioi faciunt quaque imperiti, faciet et sapiens, se non eodem modo eodem proposito”; Friedrich Haase, L. Annaei Senecae opera quae supersunt (Leipzig: B.G. Teubner, 1853): frg. IX.
Nero expropriated swathes of the city, virtually deified himself, and fostered a palatial opulence that smacked of Satraps. Augustus had been far subtler in ostensibly shunning private opulence, and Suetonius approvingly writes that only peperino piers could be found in his house on the Palatine. In truth, the same house adjoined and underlay the precinct of Apollo Palatinus, with which it was directly connected by an internal ramp, and in this sense the god’s solar marbles could even count as the public façade of Augustus’ private chambers. Such pious sleight of hand assured splendor by association and declared Augustus *primus inter pares*.

Conservative indignation over domestic marbles was not simply snobbery then, for many commentators protested that stone’s sacral character was so abiding that to squander it on one’s own home was almost a sacrilege. Augustus’ court poet, Horace, even cites (maybe invents) ancient legislation prescribing the use of newly cut stone only in temples and public buildings. And Seneca noted that once white marble alone had been a spectacle in any temple, but that his contemporaries had now debased it to lining their swimming pools (Appendix 2.3). Likewise, Pliny’s rants against the marble luxuries of Nepos, Mamurra, and Scaurus only make sense if he is castigating the privatization of the divine,

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13 Suet. *Aug.* 72.1: “*in quibus porticus breves essent Albanarum columnarum et sine marmore ullo aut insigni pavimento conclavia*” (“in which [house] was a short colonnade of Alban stone and rooms without any marble or elegant pavements”).

14 Hor. *Carm.* 2.15.18-20: “*leges... oppida publico / sumptu iubentes et deorum / templae novo decorare saxo*” (“the laws... laid out that towns and the temples of the gods be adorned at public expense with newly cut stone”).

15 Pliny despises the use of marble in *cubicula* because here they are implicitly removed still further from the public eye and public service (*HN* 35.1.3). Thus, Pliny criticizes Tiberius for spending 6,000,000 Sesterces for a painting by Parrhasios, which he then kept in his *cubiculum* (*HN* 35.36.70).
since cut marble had long been used for public building.\(^{16}\) If ivory, gold, gems (and now marbles) were to decorate the home, he asked a century after such luxuries had become commonplace, “quid omnino diis reliquimus?” – what, then, if anything, do we leave to the gods?\(^{17}\)

For Pliny the transgression, that migration of supernatural splendor into worldly luxury, was epitomized by the fact that when Scaurus had dragged his 38-footers along the Via Sacra to his private home on the lower slopes of the Palatine they had filed by the terracotta pediments of Rome’s earliest temples.\(^{18}\) Probably no less harrowing was the fact that Scaurus’ domestic columns, smuggled into Rome under the pretense of erecting them in a public theater, offended an atavistic sensibility to the column as a sacred object in itself, a totem. When Pliny, a few lines later, castigates the orator L. Crassus for installing Hymettan marble columns in his house (95 BC), it is because his was “an epoch in which public buildings still lacked a single marble column.”\(^{19}\) Similarly, in the Satyricon, the ex-slave Trimalchio can claim that he has “arrived” because his

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\(^{16}\) Pierre Gros, *Aurea Templa. Recherches sur l’architecture religieuse de Rome à l’époque d’Auguste* (Rome: École Française de Rome, 1976): 73-74. Note also Pausanias’ comment on the quarries of Lapis Lacedaemonicus (serpentine) “they are difficult to work, but once worked they become so beautiful that they may be used for decorating the sanctuaries of the gods” (3.21.4).

\(^{17}\) Pliny *HN* 36.2.5-6: “Quo enim alio modo in privatos usus illa venere ebora aurum gemmae? Aut quid omnino diis reliquimus?”

\(^{18}\) Pliny *HN* 36.2.6: “tantas moles in privatam domum trahi praeter fictilia deorum fastigia.” For the sort of architectural terracottas in question: Eva Rystedt et al., *Deliciae fictiles* (Stockholm: Svenska institutet, 1993). Cf. Livy 34.4.1-4, where Cato laments the dangers brought by expansion into Greece and Asia, places “full of every sort of libidinous temptation,” and depletes those who praise Corinthian and Athenian ornaments and deride “the terracotta antefixes of the Roman Gods.” Pliny is more pithy: “lignea potius aut fictilia deorum simulacra in delubris dicata, usque ad devictam Asiam unde luxuria” (*HN* 34.16.34).

\(^{19}\) Pliny *HN* 36.7: “Iam columnas VI Hymetti marmoris... in atrio eius domus statuerat, cum in publico nondum essent ullae marmorea.” This is patently false – at the very least the Temple of Jupiter Stator built by Metellusc. 143 BC had marble columns. Pliny also couples sacrilege and effeminacy, recounting that M. Brutus baptized Crassus “Palatine Venus.”
house boasts a couple of marble colonnades, so that it “used to be a hovel but now it is a temple.” The column was beginning a journey away from constructional necessity towards extravagant surplus, becoming, as Seneca censured, something “that supports nothing, built for decoration, merely in order to spend money.” With all this in mind, it seems obvious that Caesar’s columnarium, issued just over a decade after Scaurus’ home improvements, was fiscal opportunism disguised as a morality tax.

So began a debate about conspicuous consumption that would linger on for centuries and would not even rescue temples, or eventually churches, from the charge of materially intrinsic evil. Two centuries after the rot had set in, the historian Velleius Paterculus (c. 19 BC – c. 31 AD) will still conclude some fulsome praise of conservative Tiberius, by singling out old Metellus as “the first man to build a temple of marble in Rome and consequently the pioneer of this type of magnificence – or, one might say – this type of luxury.” Marble luxury long remained a means of indicting an individual or an age. Thus when Ammianus Marcellinus tells us, in the fourth century, that the Roman soldiery

20 Petr. Sat. 77.4: “aedificavi hanc domum. Ut scitis, cusuc erat; nunc templum est... porticus marmoratos duos.” Cusuc is corrupt (or dialect?) but presumably cognate with casula.

21 Sen. Ep. 86.7 (Appendix 2.4). Pliny disingenuously argues that in the good old days “columns were certainly used in temples, and not for the sake of splendor – such things were as yet unappreciated – but because firmer [structural members] could not be built otherwise” (“Columnis demum utebantur in templis, nec lautitiae causa – nondum enim ista intellegebantur – sed quia firmiores aliter statui non poterant”: HN 36.5.45). Cf. discussion of columns in houses in Andrew Wallace-Hadrill, “The Social Structure of the Roman House,” Papers of the British School at Rome 56 (1988): 64-70. Seneca’s Hippolytus says that the free spirit needs neither a thousand columns nor a golden roof to shelter him (Sen. Phae. 496-7).

“even sought out marbled houses,” we know that their moral degeneration presages imminent catastrophe.\(^{23}\)

Whatever the ethical qualms of Roman conservatives, they were right about the sheer expense of importing and working marble. Cicero says that in his day just one column in a private house cost 20,000 or 40,000 (depending on Mss.) sesterces.\(^{24}\) And it has been calculated that by the high empire 27,000 workers, the equivalent of four or five legions, were employed in quarrying throughout the Empire. Moreover, although the quarries were often so inhospitable that only slaves or convicts crewed them, their subsistence wages still cost the exchequer somewhere between 3,000,000 and 4,000,000 sesterces per annum.\(^{25}\) And this figure does not include the costs of urban administration or all sorts of extras, beginning with custom-built cargo ships.\(^{26}\) Nor the retail end of the market: once marbles were purchased and delivered, Diocletian’s *Edict of Maximum Prices* (301 AD) demonstrates just how ruinously expensive they were to work and lay.\(^{27}\)

\(^{23}\) Amm. Marc. 22.4.6: “quaerebantur et aedes marmoreae.”

\(^{24}\) *In Verr.* 2.1.147.


\(^{27}\) The standard composite text is in Marta Giacchero, *Edictum Diocletiani et collegarum de pretiis rerum venalium: in integrum fere restitutum e latinis graecisque fragmentis*, 2 vols. (Genoa: Istituto di storia antica e scienze ausiliarie, 1974): 2: 210-11. It is persuasively argued that the *Edict* prices marble per ft\(^2\), not ft\(^3\): Simon Corcoran and Janet DeLaine, “The Unit Measurement of Marble in Diocletian’s Prices Edict,” *Journal of Roman Archaeology* 7 (1994): 263-88. According to the same estimates, materials and manufacture of fresco cost approx. 9 *denarii* per square foot; revetment in white marble approx. 45 *denarii* / ft\(^2\); in Numidian marble approx. 206 *denarii* / ft\(^2\). Flooring in mosaic would cost approx. 10 *denarii* / ft\(^2\), in white marble approx. 9 *denarii* / ft\(^2\), Numidian approx. 28 *denarii* / ft\(^2\). The opus sectile floor of the Curia Senatus alone would have cost 1,063,800 *denarii*. 
While contractors grew fat on this incessant trade, private fortunes were supposedly ruined in the race to deck domestic halls with ever more costly marbles.  

First-style Painting and Marble Revetment

The caveats of the Roman conservatives had fallen on deaf ears. The scale and decor of the *domus* had always been commensurate with the citizen’s public dignity, and it was unlikely that they would now be denied the honor of marble. The floors of any decent, late-Republican house would at least have been marbled, as the numerous remains at Pompei, Herculaneum and even Rome demonstrate. According to Suetonius, Julius Caesar himself was so infatuated with “tessellata et sectilia pavimenta” that he even carried them around with him on campaign, like oriental rugs. But by the mid-first century BC, marble had spread up the walls in the townhouse of his engineer Mamurra and countless others, and these early revetments heralded the onslaught of rich encrustations of every sort.

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28 E.g. Juvenal describes how the imaginary Cretonius frittered away his fortune on a marbled home to rival temples, only for his son to squander the remainder on new mansions of still costlier marbles (14.86-95).


31 Suet. *Iul.* 46.
But before any of this, polychrome marble walls were imagined in painted simulation. The earliest surviving example in Italy is Etruscan: the back chamber of the François Tomb, Vulci (second half of the fourth century BC?) with its marble dado, colored blocks and evident anathyrosis (figs. 2.1). But such marble simulation is better known in the shape of the “First Style” stuccoes that clad house walls in Pompei and Herculaneum (figs. 2.2-3). “The ancients who first used polished finishings originally imitated the varieties and arrangement of marble veneers, and thereafter the various combinations of cornices and bossed paneling” Vitruvius says, though scholars still dispute his exact meaning.

32 Francesco Roncalli in Francesco Buranelli, ed., *La tomba François di Vulci: mostra organizzata in occasione del centocinquantesimo anniversario della fondazione del Museo Gregoriano Etrusco (1837-1987), Città del Vaticano, Braccio di Carlo Magno, 20 marzo-17 maggio 1987* (Rome: Quasar, 1987), 81, 107 and figs. 26-29. Cell VII. Like the remainder of the tomb this reproduces a room in an Etruscan house, presumably a triclinium given the couches. Continuous dado zone in light grey with reddish veining; ochre fascia; two rows of faux-isodomic masonry with blocks painted black, yellow and red. The blocks bend round the corners, unlike real masonry. Above this a Lesbian *kyma* in yellow on a grey background. The tympana are painted red. This example is overlooked in all literature on the “First Style.”


34 Vitruvius, *De Arch.* 7.5.1: “antiqui qui initia expolitionibus instituerunt imitati sunt primum crustarum marmorearum varietates et conlocationes, deinde coronarum et <siliculorum>rum cuneorum inter se varias distributiones.” Some propose that the “crustae marmoreae” which the painters imitated were actually marbleized stucco: Burkhardt Wesenberg, “Certae rationes picturarum,” *Marburger Wincklemann-program* (1975-1976): 24ff; Elisa Romano in Pierre Gros et al., eds., *Vitruvius. De Architectura*, 2 vols. (Turin: Giulio Einaudi, 1997), 2: 1084-85 (note 139). Whichever the case, the ultimate derivation was from masonry. The text is corrupt, allowing “siliculum cuneorum” (“pod-shaped wedges”) or “silaceorum cuneorum” (“ochrish wedges,” Fra Giocondo). Rouveret and Romano argue the former, Rouveret the latter: Agnés Rouveret, ed., *Textes grecs et latins relatifs à l’histoire de la peinture*
style decorations became widespread in Italy in the second century BC, by which time they were already so international a phenomenon that Pompeian remains must be considered only a regional idiom within a pan-Mediterranean “zone-” or “masonry-style.”

Like true ashlar this feigned masonry may have carried public overtones. At Pompei, not only is the city’s basilica (130/120 BC) decorated with first-style stuccoes (which were once highly colored), but even the towers of the city walls. Faux-masonry sometimes covered domestic façades as well, and some of these must have once been highly colored. Faux-masonry could therefore offer the most urban face of the domus, a domestic rampart that clad itself with the masonry of the public realm, and the rooms in which we find it preserved long

ancienne (Paris: Macula, 1985), 438; Romano in Gros et al., eds., Vitruvio, 2: 1085 (note 140); Hélène Eristov, “Peinture romaine et textes antiques: informations et ambiguïtés. A propos du ‘Recueil Millet,’” Revue Archéologique (1987): 121ff.. Most recently, Leach has translated “cuneus silaceor” as “flinestone wedge,” adding that these are represented by the painted rhombs in the dado of the House of the Griffs: Leach, Social Life: 58. Neither idea is convincing, especially for want of any comparanda. Here I hypothesize that “siliculorum cuneorum” may signify bossed and chamfered blocks.

For a summary of the hair-splitting controversy over whether Vitruvius can be referring to faux-ashlar (i.e. First Style), when this passage mentions only faux-revetment: Leach, Social Life: 59-64. Such debate takes place in a historical vacuum, for the represented architecture must be imaginary since polychrome ashlar is unknown until the Middle Ages.

Pia Guldager Bilde, “The International Style: Aspects of Pompeian First Style and its Eastern Equivalents,” in Aspects of Hellenism in Italy: Towards a Cultural Unity?, ed. Pia Guldager Bilde et al. (Copenhagen: Museum Tusculanum Press, 1993), 151-77. This type of decoration has gone under the names of “First-style,” “Incrustation Style,” “Structural Style,” “Masonry Style” and “Architectural Relief Style.” According to Guldager Bilde, the constituent parts of the Pompeian wall are: 1) plinth and /or socle, 2) orthostates, 3) string-course(s), 4) ashlar coursing, 5) cornice; the Hellenistic “zone style” wall is made up of 1) plinth, 2) orthostate, 3) string course, 4) main zone, 5) cornice. “Whereas Zone Style reflects buildings in sun-dried mud-bricks, monumental or not, Pompeian First-style and its equivalents imitate monumental marble buildings, especially temples and related public structures” (158).

Karlfriedrich Ohr, Die Basilika in Pompeji (Berlin / New York: Walter De Gruyter, 1991): 17-18, 35-36. These blocks were painted with marble veining and were of different colors. This can be seen on the 1879 scale model in the Museo Archeologico, Naples.

after other rooms were redecorated in later styles – the fauces and atrium – were the antechambers and audience halls of the public business of the patron-client system. A particularly excessive example is the townhouse of Julius Polybius (early first century AD), where channeled faux-masonry papers an entire vestibulum that has swelled to monumental proportions (fig. 2.4).

This fictive referencing of public masonry was, again, not a Roman innovation but an imported practice. Fictive masonry in stucco with detailed channeling had its origins first in public buildings from the Classical era. Walter-Karydi has, in fact, argued that the dissemination of such decorations in the shape of stucco revetments represented a progressive ennoblement of the Hellenic house by the gradual assimilation of the architectural features of public buildings. In Greece, such assimilation was so complete, in fact, that controversy still rages over whether some excavated remains are domestic or civic.

The stucco revetments next appear in Hellenistic houses, in fourth-century murals from Athens, Delos, Pella, Pergamon and many other Greek cities. Of all

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41 In Olynthos, Andreas Andreou, “Griechische Wanddekorationen” (PhD, Johannes Gutenberg-Universität, 1988), cat. nos. 144-47; in Eretria, Pierre Ducrey et al., Le quartier de la Maison aux
these Hellenistic homes a nearly intact example has been recovered from the early third-century Macedonian royal palace at Pella (figs. 2.5-6), and a contractual memorandum (c. 255 BC) for such decorations even survives on a papyrus from Fayoum: the Alexandrian painter Theophilos contracts for “the works in the house of Diotimos [at Philadelphia, near Alexandria], for the vestibule: for painting the cornice with a purple border, the upper part of the wall variegated, the lower band the color of vetch-seed, the tympanum with swirling veining, and for providing all materials – 30 Drachmae.” A century later, by the first century BC, it was not just ashlar but revetment that was represented. The subdued faux-ashlar coursing of the earliest examples had proliferated into a series of plinths, demi-plinths, orthostates, and various faux-


ashlar courses separated by any number of stringcourses and fictive relief-courses.

In Italy these elaborate first-style stuccoes prospered long enough to become an anachronism by the late-first century AD when real marbles were far more common to coat domestic walls – although painted revetments never disappeared. The new taste for reality had been introduced a century earlier, but the only well-preserved example is the Triclinium in the “House of the Relief of Telephus” at Herculaneum, where the skirting and dado were marbled in 62/79 AD (fig. 2.7-8). Above this room’s revetment once probably stretched fresco, but in particularly palatial residences walls could be revetted right up to

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45 The “Structural Style” is well attested, and more or less uninterrupted, in the tombs of Greek towns in the Crimea from the 4th century BC to the 4th century AD: Mikhail I. Rostovtzeff, “Ancient Decorative Wall-Painting,” Journal of Hellenic Studies 39 (1919): 150-52. In Egypt, this style only disappeared with the Arab conquest in the 7th century.

46 Pliny (HN 36.7.48) claims that the earliest Roman exponent was Mamurra, c. 48/45 BC. But Varro already speaks of “lithostra pavimenta et parietes incrustatos” in his Taphé Menippou (frg. 533), of c. 80-67 BC: Leach, Social Life: 57.

the rafters. And these might be gilded, or the coffers filled with golden rosettes, transforming, again, dining rooms into temples.\textsuperscript{48}

Now followed at least four unbroken centuries of the fashion. Unfortunately, no systematic study of the development of Roman marble revetment from the Republic to the Tetrarchy has yet been written, and centuries of spoliation have rendered the task almost impossible.\textsuperscript{49} In Rome, for instance, no domestic marbling survived the depredations that accompanied excavation even into the twentieth century. Even drawings purporting to record the revetments of an imperial-era residence on the Esquiline are actually the imaginative renderings of an artist driven back on the familiar vision of the Pantheon (\textbf{figs. 2.9}).\textsuperscript{50} A line engraving and a monochrome photograph are all

\textsuperscript{48} Manil. \textit{Astron.} 5, 288-92: the star Spica “will produce a man who carves panelled ceilings in the sacred temples, creating a second heaven in the Thunder’s abode. Such ornamentation was once reserved for the gods; today it is one of our extravagances: dining-rooms rival temples in splendor, and under a roof of gold we now take our meals on gold” (“sculpentem faciet sanctis laquearia templis / condentemque novum caelum per tecta Tonantis. / haec fuerat quondam divis concessa figura, / nunc iam luxuriae pars est: triclinia templis / concertant, tectique auro iam vescimur auro.”) Marcus Manilius wrote the \textit{Astronomica} during the reigns of Augustus and Tiberius. On the common topos of gilt ceilings: James Freeman, “’The Roof was Fretted Gold’,” \textit{Comparative Literature} 25 (1977): 254-66; Paolo Liverani, “\textit{Camerae} e coperture delle basiliche paleocristiane,” in \textit{Atti del colloquio internazionale Il Liber Pontificalis e la storia materiale Roma, 21-22 febbraio 2002}, ed. Hermann Geertman (Assen: Koninklijke Van Gorcum, 2003), 16, 24 (note 26).


that now remains of a revetted bath-hall (mid-third century) that was uncovered as late as the 1930s (figs. 2.10-11). In fact, the most extensive surviving sections of revetment are those that were found stockpiled in a patrician villa on the Janiculum in 1999, and partial revetment found in situ in a Domus under the Palazzo Valentino in 2005. Revetted cubicula in catacombs, ironically, are also material reflections of the later domus interior, but these are again rather fragmentary themselves (fig. 2.12). Otherwise, ranks of cramp-sockets are

adjoined the walls of a large complex which is hardly excavated, for which: Kjeld De Fine Licht, “Scavi nelle Sette Sale,” in Città e architettura nella Roma imperiale (Odense, Denmark: Odense University Press, 1983), 192-200; Kjeld De Fine Licht et al., Sette Sale (Rome: “L’Erma” di Bretschneider, 1990): 49-68. It was perhaps a wing of the Domus Aurea and, significantly, it was in this area that the Laocöon was discovered in 1506. It is baffling that this building has not been mentioned since Lanciani.


frequently the only vestiges of classical revetments and have often left cautious archaeologists with little option than to reconstruct spiritless grids of insipidly anonymous slabs.\textsuperscript{54}

Fortunately, the marble schemes represented in wall painting tell a different story, showing that profusion and variety were treasured. Second-style murals, like those in the House of the Labyrinth at Pompei, suggest a calculated assortment in the revetment patterning, the intermixing of various marbles, not to mention the veining arrayed within the slabs themselves (fig. 2.13).\textsuperscript{55} For Roman eyes would “not tolerate marble unless it were mottled and polished with recent rubbing… a table unless it were marked by a vein.”\textsuperscript{56} The taste for ever more varied veining was fed by the latest discoveries in the quarries, where a new seam could deliver unsuspected characteristics.\textsuperscript{57} On occasion the same held for columns, and shafts of unexciting marbles were veneered with a mosaic of more attractively veined shards (fig. 2.14).\textsuperscript{58} Bossed blocks, mini-reliefs,

\begin{thebibliography}{9}

\bibitem{55} Ala 7, triclinum 39, cubiculum 46: Volker M. Strocka et al., \textit{Casa del Labirinto (VI 11, 8-10)} (Munich: Hirmer, 1991): figs. 114-18, 239-247, 336-362. All sorts of Breccias are imitated, mixed in with simulated alabaster and porphyry.

\bibitem{56} Sen. \textit{De Ira} 3.35.5: “non ferunt nisi varium ac recenti cura nitens marmor… mensam nisi crebris distinctam venis.”

\bibitem{57} Pliny highlights “Augustean and, more recently, Tiberian marble, which were found in Egypt for the first time during the principates of Augustus and Tiberius respectively.” The markings in “Augustean Serpentine… curl over like waves so as to form curls, while the Tiberian has scattered greyish-white spots which are not rolled into curls” (Plin. \textit{HN} 36.9.55-56: “Augusteum ac deinde Tibereum, in Aegypto Augusti ac Tiberii primum principatu reperta… Augustem undatim crispum in vertices, Tibereum sparsa, non convoluta, canitie”). The stones to which he refers have not yet been identified.

\bibitem{58} Ostia, inv. 39898 a, b: Patrizio Pensabene, \textit{Le vie del marmo: i blocchi di cava di Roma e di Ostia: il fenomeno del marmo nella Roma antica} (Rome: Ministero per i Beni Culturali e Ambientali, 1994): 53
\end{thebibliography}
orthostates, cornices and dadoes were all piled on top of each other. From at least the mid-first century BC, the dado-and-orthostate schemes were also inset with lozenges or rotae in schemes of counterchanged color, a practice conspicuous in the House of Telephus (Fig. 2.8).\(^5\) This taste for counterchanging, and for the utmost variety, is of course also obvious in opus-sectile floors from at least Augustus onwards. One of the oldest surviving examples of Second-style painting, the cubicula of the House of the Griffins (c. 100 BC) on the Palatine, evidences the interweaving of revetment attempted from an early period.\(^6\) These walls feign revetting from bossed coursing and panels of glowing alabaster, to multicolored tessellations and imbrications, the latter clearly modeled on a real marble centerpiece in the floor that guarantees their illusion (Figs. 2.15-6). All in all the cumulative effect was not variety alone, but a variety of varieties.

Simulated revetment as late as the fourth century demonstrates the same desires, suggesting that by now marbling had even spread over vaults as well (Figs. 2.17-

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9). A much later example, a mural from a tomb at Touna el-Gebel (c. 200 AD) shows how much plainer revetments could acquire vivacity, where porphyry and alabaster stridently alternate so that dense pointillism may contrast with airy and amoeba-like veining (fig. 2.20).

**Painting in Stone**

The success of First-Style walls had depended upon their painted imitation of marble revetment and ashlar. The artisans that executed them did not limit themselves to imitating just the contours of the blocks and slabs but also their color and those images perceived to arise spontaneously within their brushy, rainbow veining. Both marble and hardstones were, in fact, famed as natural paintings precisely because of these characteristics.

Prodigious images in stone are mentioned as early as the Sceptic Carneades (213-129 BC), whose lost work Cicero cites when he pours scorn on the portentous character that was awarded the chance artifacts of nature. Carneades had mentioned a head of Pan that quarrymen had discovered in a

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62 Sami Gabra and Étienne Drioton, *Peintures à fresques et scènes peintes à Hermoupolis-Ouest (Touna el-Gebel)* (Cairo: L’Institut français d’archéologie orientale du Caire, 1954): pl. 4. A millennium later, such marquee-style revetment would clad the aisles of S. Marco, Venice.

63 Cic. *Div.* 2.48-49: “You also mentioned that myth from Carneades about the head of Pan – as if the likeness could not have been the result of chance! And as if every block of stone did not necessarily have within it heads worthy of Praxiteles! For his masterpieces were made by chipping away the marble, not by adding anything to it; and when, after much chipping, the lineaments of the face were reached, one then realized that the work now polished and complete had always been there [*intellegas illud quod iam expolitum sit intus fuisset*]. Therefore, it is possible that some such a figure as Carneades described did spontaneously appear in the Chian quarries”: Arthur S. Pease, ed., *M. Tulli Ciceronis De Divinatione Liber Secundus*, vol. 8 (1923), 6: 124 (note 5) with bibliography.
block on Chios, an island that would yield one of Rome’s most popular colored marbles (*Marmor Chium = Porta Santa*). When Pliny repeats the topos he transfers the image to snowy Paros, where Reinach claimed to have rediscovered the image cited on Mount Marpassa. A similar tale perdured regarding hardstones, especially an agate owned by King Pyrrhus (319-272 BC) in which one apparently saw Apollo holding a lyre and accompanied by the nine muses, an image “not due to any artistic intention, but to nature un-aided,” whose “markings spread in such a way that even the individual Muses had their appropriate emblems allotted to them.” Hellenistic and Roman artists were well aware of these stories and the phenomena that gave rise to them, for they readily perceived natural images everywhere. Cameo-cutters became partners with nature to “extract” judiciously the image latent in the natural matrix of their veins, and painters played on the idea when simulating marbles. Witness, for example, the tangled profile that emerges from a faux-breccia dado on the lararium in the House of the Gilded Cupids at Pompei (fig. 2.21).

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65 Pliny *HN* 37.1.5: “achaten, in qua novem Musae et Apollo citharam tenens spectarentur, non arte, sed naturae sponte ita discurrentibus maculis, ut Musis quoque singulis sua redderentur insignia.”

the theme of the chance image would never be far removed from artistic discourse.  

Whether marbles contained recognizable images or not, the medium was associated with painting thanks to its color and veining, an allusion which became a reflex of Roman poetry. Moreover, in Latin “pictura” indicates not only images applied to surfaces but also the medium of those images, and even the idea of variegation itself. This idea was so entrenched that once revetment had become ubiquitous in Roman households, Pliny first lamented that his contemporaries had “begun to paint in stone” (Appendix 2.5), and then ventured that “painting would not have been valued at all, let alone so highly, had marbles enjoyed any considerable prestige” when they were first quarried. The artisans themselves had been painting First Style marbles on walls for at least

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68 E.g. Martial calls Numidia “marble-painted” (Epigr. 8.55.6: “marmore picta Nomas”); Statius speaks of “marbles shining brightly with painted vein” (Silv. 1.3.35-36: “marmora picturata lucentia vena”); Claudian calls Phrygia “precious for the marble painted with purple veins, which Synnada quarries” (Eutrop. 2.272-3: “pretiosaque picto / marmore purpureis caedit quod Synnada venis”). Cf. Ennod. Carm. 2.10.6-8 (Appendix 2.13).

69 The appropriate fascicule is yet to be published in the Thesaurus Linguae Latinae, but see Egidio Forcellini, Totius Latinitatis Lexicon, 6 vols. (Padua: Giovanni Manfre, 1771): 4: 667. For pictura as a medium or as variegation: Plaut. Most. 262; Cic. Or. 11.36 (“nego ullam picturam neque in tabulis neque textilem fuisse”); Pliny HN 2.207, 2.95.2. (“pictura gemmarum”), 35.59.1 (“pictura encaustica”); Stat. Theb. 6.58 (“picturatus… agger floribus”); Claud. Ep. ad Serv. 3 (“volucres picturati”). With regard to clothes the phrase might indicate either rich weave or figuration: Verg. Aen. 3.483 (“picturatas auri sebtemine vestes”); Lucr. 2.35 (“textilibus… picturis”). Note again: Stat. Silv. 1.3.35-36: “marmora picturata lucentia vena.” Properly speaking a panel painting is a pinax or tabula picta, though pictura is sometimes used synecdochically: Plaut. Asin. 764; Cic. Tusc. 5.114; Sen. Ep. 5.34.14, 16.8.

70 HN 36.5.46: “non fuisse picturis honoris ullus, non modo tantus, aliqua marmorum auctoritate.” The comment comes in the context of his argument that the taste for using “our favourite marbles with their varicoloured markings appeared from the quarries of Chios when the people of that island were building their walls.” Pliny’s exact words are uncertain in one crucial respect. When denigrating revetment, he concludes “coepimus lapide(m) depingere”; “we have begun to paint in/on stone.” Half the critical editions prefer the ablative, the rest the accusative. Any interpretation therefore hangs on that m. In my view, Pliny’s other comments on the subject suggest that he spoke metaphorically rather than literally (see Chapter 11).
three hundred years by the time he wrote, so this practice already predisposed them to interpret marble as a painterly medium. Moreover, to complete the symmetry, once the painters had cleaned their brushes the murals were buffed up to as high a polish as their marble- or alabaster-dust impregnated stucco and pigments would allow.\textsuperscript{71} The association between painting and painting in stone was sealed in the realm of mosaic pavements, which were often said to vie with painting.\textsuperscript{72} This held especially true for the center-pieces (emblemata), which stood out from the rest of the geometric floor and were made as separate easel-pieces from Hellenistic times until late antiquity. The most prized emblemata were illusionist and figurative mosaics of high-grade and small-scale tesserae, sometimes micro-mosaics, often actual copies of well-known Hellenistic paintings, and were inset in floors to accommodate a privileged viewpoint, normally at the room’s entrance. But geometrical patterns in colored marbles also performed the same focal function in interiors at Pompei and Rome and sometimes, as in the House of the Griffins on the Palatine (figs. 2.15-6), the motif of the emblema could also migrate to the painted patterning of the walls themselves.\textsuperscript{73} In short, the idea that mosaic or revetment was also a form of

\begin{enumerate}
\item Vitr. \textit{De Arch.} 7.3.9. Vitruvius also calls plastered surfaces \textit{expolitiones} (“polishings”: 7.5.1, see above) and mentions stucco being polished till it reflects like a mirror (2.8.10, “tectoris operibus expoliti, uti vitri perlucidatatem videantur habere”). Painting in true fresco predominated, whose transparent epidermis of calcium carbonate crystals encourages polishing; alabaster-grit has been detected in the frescoes from the House of Livia; calcite crystals have been detected in pigment from Cologne: Ling, \textit{Roman Painting}: 200, 204 with bibliography.
\item Pliny \textit{HN} 36.60.184. For the techniques: Vitr. \textit{De Arch.} 1.7.
\item Eric M. Moormann and Louis J. F. Swinkels, “Lozenges in Perspective,” in \textit{La peinture murale romaine dans le provinces de l’Empire}, ed. Alix Barbet (Oxford: Centre d’Études des peintures murales romaines, 1983), 239-62. For an example of this tessellation on Delos: Ruth Westgate, “Pavimenta atque emblemata vermiculata: Regional Styles in Hellenistic Mosaic and the First Mosaics at Pompei,” \textit{American Journal of Archaeology} 104 (2000): 256-60. Westgate observes that Italian copies of this pattern are always in stone, but note that they were also simulated on the
\end{enumerate}
painting was by no means remote, and artisans who worked between these media, as they did in the Roman house, must have become very conscious of the expressive potential of the ensemble.

The exedra in the House of the Faun in Pompei (c. 125/100 BC) also demonstrates how by an early date the medium was released from the constraints of the material. As usual, the vestibule of the House of the Faun is First Style, and here its piers and panels feign an alabaster containing molluscs and other marine fossils, which were perhaps intended to demonstrate naturally formed “landscapes” (fig. 2.22). This pseudo-revetment continued on the sidewalls of the atrium exedra overlooking the peristyle and, although weathering has almost obliterated these wall-surfaces since their discovery in 1831, a diagrammatic reconstruction of the ensemble can be recovered from early records (fig. 2.23). Individual blocks were painted with a veining, from which figures “naturally” appeared, some of which, like the figure of a bird on an upper course, may have been the impulsive products of the painter as he painted the swirls of the veining (fig. 2.24). These “innate” figures adjoined fictive reliefs, like the “Symposium of Centaurs,” whose painted veining dipped and rose to


follow the contours of the “carved” surface (fig. 2.25). The latter fiction, moreover, recalls the Roman habit of reusing individual slabs within new decorative ensembles, whether marble reliefs or particularly appealing passages of fresco. Overall the walls of the exedra in the House of the Faun assemble the media possibilities and consciously frame a dialogue between the media to showcase the famous “Alexander mosaic,” a skillful copy after an earlier Greek painting, in which mosaic manifestly vies with painting. All in all, spectators would admire the painting in stone at their feet, framed by reliefs and “natural painting” within the revetting, all of which represented representations.

There is tenuous evidence that this sort of proto-paragone informed even public commissions. In the Forum of Augustus, the porticoes of choice marbles or poikiloi lithoi (“colored stones”) resumed the idea of the Greek stoa poikile (“painted stoa”). As galleries of artistic booty, it is possible that some material dialogue intentionally arose from the juxtaposition between the architectural marbles that were colored by nature and the panel paintings by celebrated, 

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76 Mau also saw a panel from which a cup seemed to emerge: August Mau, Geschichte der decorativen Wandmalerei in Pompeji (Berlin: G. Reimer, 1882): 51. The watercolor of the centaurs (ADS 405; c. 1831) was first published in Pompei, 1748-1980: 137, 90. The drawing of the bird was first published in Alfred A. Parland, K’ Istorii Arkhitekturnoi Dekoratsii v Italii (P. P. Soikina, 1913): pl. 1b.

77 When the Temple of Ceres, near the Circus Maximus, was restored (in 27 BC) the wall reliefs, by Damophilus and Gorgasus, were cut out and enclosed in framed panels (“ex hac, cum reficeretur, crustas parietum excisas tabulis marginatis inclusas esse”; Pliny HN 35.45.154). Reliefs and painted panels were frequently reused for setting into walls, composing a meta-language of ornament: Bettina Bergmann, “Greek Masterpieces and Roman Recreative Fictions,” Harvard Studies in Classical Philology 97 (Greece in Rome: Influence, Integration, Resistance) (1995): 100, with bibliography. “Some people cut out slabs of intonaco from old walls and use them as panels, and thus the same revetting divided up into panels and mirrors is all surrounded by borders in relief” (Vitr. De Arch. 7.3.10: “veteribus parietibus nonnulli crustas excidentes pro abacis utuntur, ipsaque tectoria abacorum et speculorum divisionibus circa se prominentes habent expressiones”).

78 The marbles simulated on the exedra walls reappear in the paving of the atrium: Leach, Social Life: 65.
Greek painters. In the *Aula del Colosso*, the public cult-room which heads one
dortico, stood a colossal statue in Parian marble of Augustus (or Caesar, or the
Genius of his Gens), against a sheer wall of *Luna* marble completely painted to
simulate a bright blue curtain embroidered in vermilion and gold (fig. 2.26). On
the sidewalls pilasters, friezes and dado in marbles lavishly “paint” the wall, and
the cavities within this framework once probably hosted famous panel paintings,
possibly even two by Apelles (fig. 2.27). If so, these missing panels were
embedded in the wall in the same way that *parerga* (fictive easel-pieces often with
shutters) often “hung” on Pompeian murals (fig. 2.28), which themselves, it is
now understood, mimicked the hanging of artworks in public settings, especially
public galleries (*pinacothecae*).

During the Neronian period the allusion to paintings in stone transferred
from mosaic to opus sectile. As remains from the Domus Transitoria show, large
marble wall-slabs bracketed panels and friezes in slate or dark stones, inlaid with
figural scenes in lighter marbles or colored glass (fig. 2.29). Antique authors
compare these compositions to paintings just as they had floor emblemata, and

79 The ornamental motifs are palmettes and lotus-flowers: Lucrezia Ungaro, “Il Foro di Augusto,”
in De Nuccio and Ungaro, eds., *Marmi*, 114-22 (cat. nos. 62A-70); Lucrezia Ungaro, “Il
rivestimento dipinto dell’Aula del Colosso” nel Foro di Augusto,” in *I colori del bianco. Policromia
nella scultura antica* (Rome: De Luca editori d’arte, 2004), 275-80; Ugo Santamaria et al., “Indagine
scientifiche dei pigmenti e leganti delle lastre marmoree dipinte dell’Aula del Colosso del Foro di
Augusto,” in *Colori*, 281-89.

80 Apelles’ paintings (*Alexander with the Dioscuri and Victory* and *Alexander in a Chariot with a
Figure of War*): Suet. *Aug.* 72.3.

81 *Parerga*: Pliny *HN* 35.36.101. For *pinacothecae* and their relation to domestic murals: Wallace-
illustrated here is from the Villa Item at Pompei: Ludwig Curtius, *Die Wandmalerei Pompejis: eine
einführung in ihr verständnis* (Leipzig: E. A. Seemann, 1929): 373, taf. 204.

82 Tobias Dohrn, “Crustae,” *Mitteilungen des Deutschen Archäologischen Instituts, Römische
Abteilung* 72 (1965): 127-41; Carlo Gasparri, “Appunti sull’‘opus sectile’ del Palatino,” *Studi
by the late third century both figural and abstract emblemata in opus sectile had also begun to infiltrate walls. Painted remains at Ephesus, for example, show walls with plain dados, paneled walls divided by pilaster strips and attics of geometrical emblemata or rotae (figs. 2.30-31).

Living like Gods in the House of Light

Whatever the patterning, once the marbles had been set edge-to-edge to form sheer surfaces, a laborious process of polishing ensured that they would seem a piece and reflect like giant mirrors. As Symmacus says (before 377 AD) of the marbles in his father’s house, they were “so polished that despite the composition of many pieces they give the illusion of being one sole piece.” The house of the lord and master must really shine, and when a VIP was expected the

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84 The ingenuity that went into making the slabs run completely flush is unveiled in Larry F. Ball, “How Did the Romans Install Revetment?,” American Journal of Archaeology 106, no. 4 (2002): 551-74.

85 Symm. Epist. 1.12: “Scalis subpectus est honor marmoris; superiores conclavia crustis teguntur ea operis levitate, ut conpago solidum mentiatu. Columnas nihil amplius mercatus es, quam si tibi muneri contigissent. Eas bithynio lapide caesas, si bene oculis utor, existimo” (“Marble honors the stairs; the upper floor chambers are covered with a revetment so polished that despite its composition of many pieces it gives the illusion of being one sole piece. This also holds for the expensive columns which I believe, if I have good eyes, to be cut from Bithynian stone”). On the Domus Symmachorum see Andrea Carignani and Giandomenico Spinola, “Mosaici e pavimenti marmorei dai recenti scavi sul Celio,” in Atti del II colloquio dell’associazione italiana per lo studio e la conservazione del mosaico (Bordighera: Istituto internazionale di studi liguri, 1995), 403-14.
marbles received as much spit and polish as the family silver. Aristeides attributes the same luminosity to even rough frontier walls, which are “closely and carefully fitted with stone... immense in size and gleaming with more brilliance than bronze.” In so saying, he draws on Homer’s comparison of close-fitting ashlar masonry with a wall of burnished shields (Il. 16.212-215), and such metaphors may offer some explanation for the enduring partiality to shield shapes, particularly *peltae*, in antique wall revetment. On occasion, individual, oval or lozenge-shaped slabs were even set into plaster walls to act as mirrors, and even in the sixth century the porphyry roundels in Hagia Sophia will be called “marble shields.”

At home, this hall of mirrors raised the household onto another plane. The most exalted patrons from the emperor down were happy to become temporary gods by permanently basking in the shimmering reflections that suggested they haunted solar abodes. The most opulent homes looked up to divine palaces, like that of Cupid described by Apuleius in the *Golden Ass*:

>a royal palace, constructed not with human hands but by divine arts. For you will know from the moment you enter that you are looking at the resplendent and appealing residence of a God... all the walls are constructed from solid blocks of gold glowing with their own brilliance, so that the house creates its own daylight even without the sun’s

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permission: thus the rooms, thus the colonnades, thus even
the doors do themselves blaze.89

The man to beat in this game, however, was not Cupid but the Sun
himself. The motif of the ruler’s domain as Palace of the Sun stretched back to the
Pharaohs, who regarded themselves as living gods. And from at least Homer’s
description of the Palace of Alcinous onwards poets imagined palaces clad in
fiery bronze, glowing ivories, or dripping with amber and flaming jewels.90 In
the Odyssey, when Telemachus bursts into the Palace of Menelaus it is exactly
this sort of display that moves him to exclaim that surely this is the way that the
palace of Zeus on Olympus must be.91 If each palace must be thauma idisthein, “a
wonder to behold,” the corollary was that seeing was believing.

The same ambition no doubt explains the gypsum floors and walls of
Minoan palaces, and the flaming porphyry and sunny alabasters that clad the
palaces of Ptolemaic Egypt.92 Indeed, when Lucan imagines the abode of the last

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89 Apul. Met. 5.1: “domus regia est, aedificata non humanis manibus, sed divinis artibus. Iam
scies ab introitu primo dei cuiuspiam luculentum et amoenum videre te diversorium... totique
parietes solidati massis aureis splendore proprio coruscant, ut diem suum sibi domus facet licet
sole nolente: sic cubicula, sic porticus, sic ipsae valvae fulgurant.”

90 Palaces of the Homeric era were decorated with colored stones, or painted imitations: Ethel S.
Hirsch, “Another Look at Minoan and Mycenean Interrelationships in Floor Decoration,”

91 “Can you believe your eyes? / the murmuring hall, how luminous it is / with bronze, gold,
amber, silver and ivory! / This is the way the court of Zeus must be, inside upon Olympus. What
a wonder!” (Hom. Od. 4.72-75). Cf. Lucian Dom. 3: “No doubt it was fitting for Homer’s island
boy to be astounded at the house of Menelaus and to compare its ivory and gold to the beautiful
things in heaven because he had never seen anything so beautiful on earth,” Loeb ed. trans. A. M.
Harmon.

92 For Minoan floors: Stefanis N. Chlouveraki, “Exploitation of Gypsum in Minoan Crete,” in
Interdisciplinary Studies on Ancient Stone, ed. Lorenzo Lazzarini (Padua: Bottega d’Erasmo, 2002),
25-34. For faux-marble Minoan floors: Ethel S. Hirsch, Painted Decoration on the Floors of Bronze Age
Structures on Crete and the Greek Mainland (Göteborg: P. Åström, 1977); Hirsch, “Another Look at
Minoan and Mycenean Interrelationships,” 453-62. Cf. marbled dado of the “Throne Room” at
Knossos in Arthur Evans and Joan Evans, The Palace of Minos. A Comparative Account of the
Successive Stages of the Early Cretan Civilization as Illustrated by the Discoveries at Knossos (London:
Macmillan and Co., 1921). For similar marbled dados at Tiryns (c. 1360 BC) and Pylos (c. 1300
Pharaoh, Cleopatra, he emphasizes that “alabaster was laid all over the hall to trample,” and that its shimmering marbles made it the “very image of a temple” in which the queen reigned as a goddess (Appendix 2.1). Statius, in fact, describes the palace of Venus in identical language (Appendix 2.10). Cleopatra’s throne-room now lies at the bottom of the modern harbour at Alexandria, but we can imagine its floor from Ptolemaic fragments like the pavement at Suk el Wardà (fig. 2.32) or, better still, those in Roman mansions like the Domus of the Horti Lamiani (fig. 2.33).93 Such paving was itself descended from temple interiors like that of Khafre at Ghiza (c. 2520-2494 BC), where striding across the glowing floor must have seemed like treading on sun-filled cloud.94 In antiquity alabaster probably had a sunny character even when it did not function as a filter, for we find a huge rota like a stone spotlight at the heart of a late Mithraeum near the Circus Maximus dedicated, like all other Mithraic shrines, to Mithras as “Sol Invictus” (fig. 2.34).95 Lucan imagines a throne-room which is not

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94 “The reflective surfaces and glowing floor must have seemed unfamiliar and awe-inspiring to people were used only to matt surfaces on such a large scale. In addition, the use of light-white for the floor with a dark (granite in shadow) ceiling is an inversion of the black-floor, light-ceiling composition. This seems likely to be a deliberate contrast (both combinations are found in Sahure’s mortuary temple), possibly emphasizing the alien nature of the former spaces as opposed to the theme of the microcosm of the visible world”: Kate Spence, “Red, White and Black: Colour in Building Stone in Ancient Egypt,” Cambridge Archaeological Journal 9, no. 1 (1999): 116; Mark Lehner, The Complete Pyramids (London: Thames & Hudson, 1997): 124.

95 Carlo Pietrangeli, “Il mitreo del palazzo dei Musei di Roma,” Bullettino della Commissione Archeologica del Governatorato di Roma e Bullettino del Museo dell’Impero Romano 68, no. 1-3 (1940):
simply veneered but hewn from solid blocks and we can conjure up his vision with the burial chamber of a now-vanished tumulus, purportedly of Alexander the Great himself, which is assembled from five massive monoliths (fig. 2.35). Sunny alabaster and hot Porphyry were materials of choice for palace interiors at least a couple of centuries old by the time Cleopatra commissioned her throne-room as we can see from the feigned encrustations of Alexandrine tombs (figs. 2.36-7). A quick comparison with the frescoes in the House of the Griffins also tells how the taste for “Alexandrina marmora” (words that Seneca will spit out in revulsion) was transmitted in paint long before the actual materials were imported. An actual revetted interior, the alabasters in the Baths “of Pasa Ilica” at Pergamon, proves that they had lost none of their appeal in the Hadrianic era and that earlier simulations were no painter’s whimsy, while alabasters would composed real or feigned friezes right into the Byzantine period (figs. 2.38-9).

143-76, esp. 56. This solar disk may once have been spot-lit from a ceiling aperture, as was common in Mithraea: Wolfgang Lentz, “Some Peculiarities not hitherto fully understood of ‘Roman’ Mithraic Sanctuaries and Representations,” in Mithraic Studies, ed. John R. Hinnells (Manchester: Manchester University Press, 1975), 358-77. The face of Mithras’s cult images were themselves regularly gilded, and several of the altars dedicated to him were often hollow and illuminable from within: Dierk Wortmann, “Ein Mithrasstein aus Bonn,” Bonner Jahrbücher des Rheinischen Landesmuseums in Bonn 169 (1969): 410-23.


98 Seneca castigates “alexandrina marmora” (appendix 1.5). For purple walls: Monica Salvadori, “Ante omnes est purpurissimum. La porpora nella pittura parietale romana,” in Longo, ed., Porpora,
The motif of the Palace of the Sun as the ruler’s domain stretched back as far as Homer’s Palace of Alcinous and before that, of course, to the Pharaohs. The Pharaohs regarded themselves as living gods and, from at least that far-gone era, each palace must be *thauma idisthein*, “a wonder to behold,” but a palace in which seeing was believing.

Kantorowicz has brilliantly and methodically traced the idea that Roman and Byzantine emperors, eventually Louis XIV (the “Sun King”) and even Napoleon, were happy to be considered the rising suns that illuminated their cities and kingdoms. The Roman Emperor was lauded as the rising sun, the *Oriens Augusti*, because this title clinched the moment when sunbeams flood the world ridding it of darkness. It was also said that in the emperor’s power this moment became everlasting, signifying his “rising in timeless perpetuity,” and therefore implied an “*imperium sine umbris*, an empire in which the Sun does not set.” From Caesar onwards, these same emperors expected posthumous divinization, so it was fitting that in this world too they live like gods. It can only follow that such rulers must live in houses that competed with that of Helios-Sol

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himself and on a scale so huge that they were visible entire only to his supernal eye.\footnote{100}

Marbles were instrumental in achieving the desired effect, transforming the interior into a mirage of light that seemed to emanate from the ruler himself. This widespread perception was stoked by the epideictic oratory and poems churned out by court literati, who often borrowed their plaudits from earlier descriptions of temples.\footnote{101} Perhaps no emperors took up the gauntlet with greater gusto than Nero and then Domitian. Nero’s lust for light meant that his Domus Aurea (64-68 AD) was entirely south-facing so it would be flooded with sunlight from dawn until dusk.\footnote{102} Nor was he content with sheathing the entire edifice in marble, for it was famously studded with gems, looking back to those eastern tents pitched on gilded columns and dripping with blazing jewels, erected from the Persian kings to Alexander at Susa.\footnote{103} Although Nero’s palace was stripped bare after the emperor’s fall, we may gain some impression of the effect from the fictive architecture in Poppaea’s villa at Oplontis (fig. 2.40) as well as actual fragments unearthed in the 1870s in the Domus of the Horti Lamiani, a

\footnote{100} See particularly E. Baldwin Smith, 

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\footnote{101} E.g. Antipater of Sidon (2nd century BC) says of the Temple of Artemis at Ephesus: νόσορων Ὄλυμπου “Ἀλοις οὐδὲν πετοῦν ἐπηγόγας τοι’ ("apart from Olympus, the sun never looked on anything so grand": Anth. Pal. 9.58.7-8). Such odes couple the idea of solar brightness with the notion of buildings so large that they could be visible to the sun. Cf. Callimachus’ Hymn to Apollo, with its description of the God entering his temple in a blaze of light.


\footnote{103} Suet. Ner. 31: “In ceteris partibus cuncta auro lita, distincta gemmis unionumque conchis erant” (“in other parts everything was covered with gold and studded with gems and pearls”); Tac. Ann. 15.42.1. Cf. Cima and La Rocca, eds., Tranquille dimore, 124-27.
palatial residence that had been refurbished by Caligula. Here stood Numidian columns with gilt bronze capitals and bases. Gems, quartzite, rock crystal, and agates accompanied foliate decorations in gilt copper that (probably) altogether composed friezes capping the revetment (fig. 2.41). Similarly, the few surviving vaults of the Domus Transitoria, Nero’s house before the fire of 64 AD, have borders once studded with “gems” of vitreous paste. All Nero’s brilliant encrustations identified him as Sol-Helios, the new Sun that would heal Rome after the disastrous fire of 64 AD, and the Domus Aurea as his proper abode, a gilded house and a Sun-Palace.

The equally demented Domitian, on the other hand, was the author of the equally vast Domus Flavia on the Palatine (81-92 AD). Although Suetonius says

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that Domitian forestalled assassins by lining his Palace colonnades with Phengites (because he could “see in its brilliant surface the reflection of all that went on behind his back”) this scurrilous anecdote only marginalizes the material’s solar aspirations.\(^{107}\) Phengites, Pliny says, was “a stone as hard as marble, brilliant and translucent, even in those parts that were streaked with yellow veining.” In an earlier temple built of the stuff, “even when the doors were shut, it gleamed like the day… since it was as though the light was enclosed within, rather than transmitted from the outside.”\(^{108}\) Summing up the entire palace, Martial announces that here, “the day sees nothing brighter in the whole world… sated with the hidden light of the rising sun… [it is] a house equal to heaven.”\(^{109}\) He means all parts of the palace but especially the Aula Regia and Triclinium (fig. 2.42) that lay at its heart, overwhelmingly grandiose constructions premeditated to rival the scale of temples precisely because they presented Domitian as a living god.\(^{110}\) It is in the Triclinium that Statius famously catalogues the panoply

\(^{107}\) Suet. *Domit.* 14.4. Note that the columns were of Numidian marble. Domitian may well be Juvenal’s target when he disparages a “Dominus” who builds a banqueting hall, supported on Numidian columns to catch the winter sun (7.182-183: “Numidarum fulta columnis / surgat et algentem rapiat cenato solem”).

\(^{108}\) Pliny *HN* 36.46.163. See Chapter 3 for a longer discussion of this stone.

\(^{109}\) Mart. *Epigr.* 8.36.4, 9-10, 11: “Clarius in toto nil videt orbe dies… arcano satietur lumine Phoebi / nascentis… domus par coelo.” The palace was built in 81-96 AD.

of exotic marbles and imagines that he must have entered heaven itself (Appendix 2.6).

It remains to be said that, even four centuries later, an anonymous epigram will still laud “the bright house” of the Emperor Justinian in the same glowing terms, as “a marvel for the sun to view at its rising,” because “never before when he mounted his celestial path did he see such beauty on earth.”

The glories of the Byzantine home had been putting Menelaus to shame since the fourth century AD. Justinian too was the Lux urbis et orbis and his palace the “House of the Sun” but, at the other end of the Mediterranean, even the Vandal dynasty that Justinian was just about to annihilate subscribed to the same imagery. Their compliant court poet, the aptly named Luxorius, enthuses (523/530 AD) that the “Audience chamber of the King [Hilderic] at Anclae [Carthage] gleams, wondrously made by art, labor, skill, riches, wealth. From here the sun itself captures the rays that it could give it. You would believe that another day is [born] in the marbles.” Luxorius deemed the light in Hilderic’s

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113 Themistius says (384 AD) that Constantinople is filled with “he who builds a vestibule, or bedroom or presentation hall, he who makes himself a house with seven or nine rooms, and there are also those who have the walls and pavements adorned with Spartan, Libyan or Egyptian marbles and make Menelaus look lacking in taste, he who had covered the walls of his palace with silver and gold” (ὁ δὲ θάλαμον, ὁ δὲ ἀνδρόν, ὁ δὲ ἔπτακλινον ἢ ἐννέακλινον οἶχον, τῷ δὲ καλύπτεται οἱ τοίχοι καὶ τὰ ἐδάφια λίθοι Λακαίνῃ καὶ Λιβύσσῃ καὶ Λιγυστίᾳ, καὶ δείκνυσιν ἀπειρόκαλον τὸν Μενέλασον, χαλχῷ τοῦ τοίχου τῆς οἰκίας ἀλλιψαντα καὶ ἀπχύσα: Orat. 18.223a; Wilhelm Dindorf, ed., Themistii Orations (Hildesheim: Georg Olms, 1961), 271. Pseudo-Codinus extolls the rich marbles of the Palace of Lausus: Raymond Janin, Constantinople byzantine: développement urbain et répertoire topographique (Paris: Institut francais d’etudes byzantines, 1964): 123, 379.
palace so intense, in fact, that it seemed to melt the floor: “the unclouded pavement seems to be thickly spread snow. When your feet stand upon it, you would think they could sink into it.”

Hardly any revetted interior survives but the shock effect of all this splendor can still be appreciated through the eyes of the Chinese diplomats who infiltrated the empire’s eastern borders in late antiquity. Used to jade and other hardstones but certainly no marble architecture, when these stupefied newcomers came face to face with marbled palaces, they could only conclude that their “kingposts” were of coral, their walls of “opaque glass,” their pillars of lapis lazuli, and their pedestals of crystal. It is ironic that these Asian interlopers mistook marble for glass, for marble revetment achieved the acme of radiance precisely when it was replicated in colored glass. Such vitrine revetments have been retrieved from the Iseum at Kenchreai (c. 360/375 AD), where intricately inlaid Nilotic scenes and figures of philosophers are framed by intarsiated pilasters and sit over high dados, whose glass is mixed to imitate marble veining (figs. 2.43-5). But the practise must have been reasonably

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115 Descriptions of Aelana (Elat), Antioch-on-the-Orontes and Constantinople: Hou-Han-Shu, chs. 86, 88 (5th Century AD); Wei-hio (before 429 AD); Chin-shu, ch. 97 (7th Century AD); Chi-t’ang-shu, ch. 198 (mid-10th Century AD); Hsin-t’ang-shu, ch. 221 (mid-11th Century AD) in Friedrich Hirth, China and the Roman Orient: Researches into their Ancient and Mediaeval Relations as Represented in Old Chinese Records (Shanghai/Hongkong: Kelly & Walsh, 1885): 35-96.

116 Leila Ibrahim et al., Kenchreai: The Panels of Opus Sectile in Glass (Leiden: E. J. Brill, 1976): esp. 208-19 and drawings XVI-XIX, XXVII-XXX, XXXIV A-XXXIV B, LIII A-LIV. Over a hundred panels were recovered, which would have covered a total wall area of 150 m². Dated there to c.
widespread for fragments have been retrieved from the Villa of Lucius Verus just outside Rome (fig. 2.46-7), others are known from archaeological notes, and ancient authors attest to their wider use.\textsuperscript{117}

**The Hall (393/394 AD) of the Building outside the Porta Marina, Ostia**

Apart from the scattered examples mentioned above, precious little revetment has survived to vindicate poetic rhapsodies of them. However, a stroke of misfortune has ensured that one grand interior has survived sufficiently intact to provide a spellbinding glimpse of what has been lost. This is the late fourth-century hall from a building outside the Porta Marina, Ostia. Becatti, who excavated the room, considered the complex in which it stood to be the seat of some college, and this particular chamber a Christian cult-room. But Frazer, and then Guidobaldi, have persuasively argued that all the remains actually

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\textsuperscript{117} Alexander Nesbitt, “On Wall Decorations in Sectile Work as used by the Romans, with Special Reference to the Decorations of the Palace of the Bassi at Rome,” *Archaeologia* 45, no. 2 (1880): 267-96; Barbara Bacchelli et al., “Nuove scoperte sulla provenienza dei pannelli in *opus sectile vitreo* della collezione Gorga,” in *Atti del II colloquio dell’associazione italiana per lo studio e la conservazione del mosaico, Roma, 5-7 dicembre 1994*, ed. Irene Bragantini and Federico Guidobaldi (Bordighera: Istituto Internazionale di Studi Liguri, 1995), 447-66. The central section of the Scenae Frons in the Theatre of Scaurus had some sort of glass cladding: *HN* 36.24.114; Henri Lavagne, “‘Luxuria inaudita’: Marcus Aemilius Scaurus et la naissance de la mosaique murale,” in *Mosaïque: recueil d’hommages à Henri Stern* (Paris: Editions Recherches sur les civilisations, 1983), 259-64. For a wall panel with an aquatic scene (1\textsuperscript{st} century AD): Donald B. Harden, *Glass of the Caesars* (Milan: Olivetti, 1987): 32-33 (cat. no. 10). Statius describes walls “shining with figures in vitreous variety” (Appendix 1.8); S.H.A. *Firmus Saturninus Proculus et Bonosus* 3.2: “Much was said of the riches of [Firmus, general of Zenobia]. For it is said that he fitted his house with glass quarries fixed [to the wall] with bitumen and other substances” (“De huius divitiis multa dicuntur. Nam et vitreis quadraturis bitumine medicamentis insertis domum instruxisse perhibetur”). Nesbitt (275-276) also refers to a now-destroyed room “in a palace between the gate of San Sebastian and that of St. Paul in Rome” where figurative glass opus sectile occupied the wall above a marble dado (the site, the Vigna Alfieri, is visible in Lanciani’s *Forma Urbis*, sheet 46, bottom left). Other fragments of glass opus sectile found in Egypt and Rome are catalogued in Ibrahim et al., *Panels*: 262-65. For a Christian example with a Chi-Rho and St. Thomas (c. 300/350 AD): Harden, *Glass*: 34 (cat. no. 11).

In 393/4 AD, after masons had finished revetting most of its walls, the new hall caved in for unknown reasons.\footnote{Both the Goths and militant pagans have been blamed for this surprise demise. I suspect a more banal structural failure thanks to shear stress at the junction between the Trajanic footings and the late-antique elevation, heavy with marble and sodden with mortar. Becatti suggested a date between 385/90 and 395 AD. However, the latest coinage discovered below the detritus dates to 393/394 AD (Becatti, \textit{Edificio}: 42, nos. 14, 15; 67-71). Given that such panels were pre-fabricated off-site, and that on-site application would only have taken a few months, there is little reason to think that the scheme predates 393/394.} Fortunately, because it collapsed like a house of cards, there were relatively few gaps in the decorations when the various layers were peeled away during excavation in 1959-66.\footnote{Documented in Becatti, \textit{Edificio}. The revetment was reconstructed virtually entire at the exhibition “Aurea Roma,” Rome 2000 and now (2005) in the Museo dell’Alto Medioevo: Maria Stella Arena and Anna Maria Carruba, \textit{Opus sectile di Porta Marina} (Rome: Direzione generale per i beni archeologici, 2005).} Below all the detritus, an opus sectile floor was also found, ready to lay,\footnote{Becatti, \textit{Edificio}: 21, 112-14.} and it too was largely intact although only sufficient to fill about only a third of the floor area, suggesting that some other pattern, perhaps mosaic, would have been laid elsewhere (say, in the exedra) or that an emblema was intended to punctuate some part of its surface.
The hall itself, oriented north-south, was divided into two corps, each meant to be richly marbled from floor to ceiling (figs. 2.47-9). The main body was a tall chamber, facing the Mediterranean through a loggia of paired columns, opposite which lay a narrower and lower alcove, or exedra, quite probably for dining. The hall proper was revetted in five registers, increasing in scale as they advanced towards the roof, presumably to ensure that the upper panels maintained their legibility. The lower wall adopted the paneled revetment that was staple to public rooms like the Curia and Hall of the Praefectus Urbis (later SS. Cosma e Damiano), both in the Forum Romanum (fig. 2.49-50), although enlivened by small emblemata and pelta motifs, and with vertical, geometrically subdivided panels substituting for pilasters. On the centerline of

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122 Hall = 7.45 x 6.7 m; exedra = 6 x 3.9 m respectively. In the hall, the revetment reached a height of 7.82 m, in the exedra c. 7 m. No revetment was found bridging the 2.5 m gap between the floor and the surviving opus sectile (the shear line of collapse), as the artisans worked from the ceiling down and had only reached this point when the room collapsed. What we are missing is probably another border of opus sectile, an orthostate, and a skirting.

one long wall a panel portrayed a blessing figure that Becatti identified as Christ, but which more recent scholarship argues is a charismatic philosopher (fig. 2.51). Above all this ran a richly detailed floral frieze bordered by a geometric border, all in minute opus sectile. Further up, huge panels of lions over powering deer were divided by simpler paneling and bookended by spiral colonnettes bearing broken pediments (figs. 2.52-3). Finally, the uppermost register was occupied by counter-framed paneling, some enclosing elaborately bordered rotae.

The decorative sources of this part of the hall are relatively easy to trace. These walls follow on long-established traditions to recombine motifs all the way from second- to fourth-style mural painting (i.e. the scenarum frontes of triple colonnettes bookending the lateral lion panels) with the shades of panel painting (i.e. the pinax of Christ or philosopher), fresco (the large panels of lions and tigers assaulting antelopes), and even tapestry (the inhabited-scroll antependia pilasters on the antae of the exedra; fig. 2.54). Several of these motifs reappear in the only building whose decorations can now be compared to the Ostia room, the audience hall of the Palace of the Bassii, the so-called Basilica of Junius Bassus (c. 335 AD), in Rome. Although destroyed in the seventeenth century, its revetment was recorded in several detailed drawings (fig. 2.55) and individual panels also survive (fig. 2.56).125

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The other corps of the Ostia hall, the exedra, is quite a different animal. Although its upper walls are exquisitely and meticulously marbled, the artistry has gone into reproducing opus mixtum (or opus compositum; reticulate tufa-work divided by brick bands and quoining) right down to its mortar joints (fig. 2.57). It is as though the origins of Roman mural decoration in the First-style, which, Vitruvius had explained, “imitated the variety and arrangement of marble facing,” had come full circle. Like the illusionist paraphernalia of a Mannerist room, in fact, the Ostia room condenses onto its mural surfaces almost every artifice used to decorate a wall during the previous seven centuries. There retrospection is purposeful. Even the marbles had been quarried three hundred years earlier.126 In this sense, the collection of effects is the built equivalent of the late-antique Cento (“patchwork”), a genre of verse composed entirely from fragments of earlier poets which originated in the second century but had its greatest diffusion in the fourth and fifth centuries.127 Michael Roberts has, in

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126 Unsawn Numidian blocks in the detritus bore inventory marks of Domitian (81-96 AD): Becatti, Edificio: 22-23. No doubt they came from the stockyards of Ostia or nearby Portus.
turn, influentially linked this genre to a “jeweled style” in late-antique poetry and suggested a similar aesthetic in the visual arts, wherein a preference for episode over whole resulted from the revival of the original meaning of *varietas* (*poikilía*), that is “colorfulness.” ¹²⁸ The willful contrast between hall and exedra, the former evidencing several arts, the latter an “unadorned” and aniconic alcove, makes it also tempting to enlist rhetorical conceits and see one half expressing a “decorated mode” (*modus ornatus*) and the other a “humble mode” (*modus humilis*). One might even cite Augustine’s definition of the beauty of speech as *contraria contrariis opposita*: “the beauty of the course of this world is built up by a kind of rhetoric, not of words but of things, which employs this contrast of opposites.” ¹²⁹

But such love of contrast does not entirely explain why the exedra wall reproduces, at enormous expense, the comparatively humble construction of *opus mixtum*. Whoever the patron, he was so influential that his home now blocked the Porta Marina, and with it access to the seashore, thereby effectively turning the Decumanus into his front drive. Our room, thanks to its scale and splendor, was most likely the *aula*, or audience room, for this grandee. ¹³⁰ It

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¹³⁰ It might have doubled for dining. On aulae and triclinia in the late-antique domus: Simon P. Ellis, “Power, Architecture, and Decor: How the Late Roman Aristocrat Appeared to His Guests,”
would have been the stage for the *salutatio*, or dawn greeting to the aristocrat from friends and clients, a practice which had not ceased with the Republic but persisted until the eclipse of empire. Thus, when Ammianus castigated the nobility for the same old grievances, only about thirty years before the Ostia Aula was built, he singled out the *salutatio* sycophants that, “greet every word uttered by the great man with various expressions of hypocritical applause, like the parasite in comedy who inflates the pride of the boastful soldier by attributing to him heroic exploits in sieges and in battles against overwhelming odds.” Ammianus even seems to have a room like the one at Ostia in mind when he writes that these parasites especially “admire the rows of columns hanging on the towering façade, and the walls gleaming with the remarkable colors of precious stones, and exalt these noblemen above mortals.”

The quotation of *opus mixtum* in the exedra was a doubly self-conscious gesture. *Opus reticulatum* had survived in the masons’ repertoire at Ostia until at least the fourth century, whereas elsewhere it had been obsolete for a hundred and fifty years. When fair-face, as represented here, it was an external

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131 Ellis, “Power,” 118.

132 Amm. Marc. 28.4.12: “ita hi quoque columnarum constructiones, alta fronte suspensas mirando, atque parietes lapidum circumspectis coloribus nittidos, ultra mortalitatem nobiles viros extollunt.”

revetment, and one can find windows and doors in brick walls blocked in exactly the same way, with opus reticulatum, just a few blocks up the Decumanus (fig. 2.58). Not only that but the chequer-board reticulation simulated can be found on tombs at the other end of the same street (fig. 2.59).

The fiction that the exedra was an external space was also corroborated by its mosaic ceiling, where gold vine tendrils once spread across the semblance of azure sky. In this sense, the wall seems to pull the image of public life from the city streets into the interior of the domus, at the site of the salutatio, in a manner analogous to first-style stuccowork. But the vine-tendril ceiling also suggests that this exedra was meant for dining: either simulating external dining rooms like that which Pliny the Younger describes in his Tuscan villa (Ep. 5.6.36-37); or because of the vine’s obvious Bacchic associations – in fact, a whole floor of a second-century dining hall in Vienne was occupied by the same design with Lycurgus battling the vine at its centre.

As for the exorbitant humility of the exedra walls, one has to concede that if precious materials signalled social status only by conspicuous consumption,
then making bricks out of marble was brazen to the point of decadence. A more sympathetic answer again resides in the manifestation of luminosity, and Roman yearning for a masonry that seemed to shine through its very pores is well attested. Pliny, for example, tells us that an architect made the walls of a temple to Jupiter at Cyzicus glow by lining the ashlar joints of the cella with “small gold tubes… such that very fine filaments of light shine through the interstices.” We have already mentioned the use of glass to imitate marble but, as it happens, the imitation of brickwork in marble was itself unique neither to the Ostia room nor its epoch. For a start, this genre of revetment is imitated in fresco. Also, patches of *opus spicatum* (herringbone-brick paving) made from pink pieces of Numidian marble have come to light in the first-century Villa of Domitian at Sabaudia and the (probably) second-century villa at Villamagna.

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136 Wallace-Hadrill, “Social Structure,” 47-48: “We are hampered by the poverty of the concept of ‘conspicuous consumption,’ and its limited ability to account for the patterns of consumer behaviour. Desire to improve one’s place in the pecking order (‘Keeping up with the Jones’) may explain the expenditure of wealth as such, and helps to account for the homogeneity and diffusion of waves of fashion, but it does not account for fashions taking the patterns they do... The consumer through his expenditures transmits signals in a language of social communication.”

137 Pliny *HN* 36.21.98: “in quo tubulum aureum commissuris omnibus politi lapidis subiecit artifex... translucent ergo iuncturae tenuissimis capillamentis.”


(fig. 2.60), while an isodomic “terracotta” tiled floor in the same materials has been found in Rome.\textsuperscript{140}

In short, the patron probably wished to sustain the usual conceit that his hall was envied by the sun and, although he was neither god nor Emperor, wished to be “exalted above mortals” (as Ammianus protested) and needed a home fit for a hero. Such super-human but not quite blasphemous magnificence may, in fact, be the gist of Nero’s much earlier quip about the Domus Aurea: “Finally I begin to live in a house worthy of a man.”\textsuperscript{141} The menagerie of massive lions overwhelming gazelles that populate the upper walls certainly pursues some power discourse, though not perhaps simply a lesson in brute force.\textsuperscript{142} And the Ostian patron may even have aspired to resemble the charismatic philosopher portrayed on his wall, whose inner virtue burns so bright that his

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\textsuperscript{140} Villamagna (near Anagni, Provincia di Frosinone): Umberto Tommasi in Gioacchino Giammaria, \textit{Villamagna} (Anagni: Istituto di storia e di art e del Lazio meridionale, 1999): 45, fig. 40. Tommasi illustrates a modern landing with marble strips from the ruins, but an antique floor of the same composition was accidentally unearthed \textit{in situ}, and is now being investigated by the Soprintendenza. It was brought to my attention by Caroline Goodson and Lisa Fentress, who also provided the photograph. For the isodomum pavement in Chian tiles with Numidian coursing: Guidobaldi and Guiglia Guidobaldi, \textit{Pavimenti}: 71-72, fig. 17E.

\textsuperscript{141} Suet. Ner. 31.2: “ut se diceret quasi hominem tandem habitare coepisse.” I take it Nero meant a “real man,” even “super-man.” Diogenes had famously said that he sought “a man,” but had only found boys in Sparta. Grimal interprets the phrase to mean “le seul ‘citoyen du Monde’” or the emperor as Cosmocrator living in a palace overlooking a park which was a microcosm of the Mediterranean: Pierre Grimal, “Sur deux ‘mots’ de Néron,” \textit{Pallas} 4, no. 3 (1955): 15-21.

\textsuperscript{142} E.g. in the large Triconch at Piazza Armerina, the mosaic floor is decorated with the labors of Hercules. Hunt scenes are also common. “The owner may not have been emperor, but in his villa he behaved as one… Hercules had the preordained strength that allowed him to subdue many powerful beasts of the natural world”: Ellis, “Power,” 126-27; cf. Yves Thébert, “Private Life and Domestic Architecture in Roman Africa,” in \textit{A History of Private Life: From Pagan Rome to Byzantium}, ed. Philippe Ariès and Georges Duby (Cambridge, MA / London: Belknap, 1988), 402-04. Stern interprets the Ostia lions simply as “realistic” scenes from the arena: Henri Stern, review of G. Becatti, \textit{Édifice con ‘opus sectile’ fouri Porta Maxima}, Rome 1969, \textit{Art Bulletin} 55, no. 2 (1973): 286.
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head is surrounded by a halo (fig. 2.51). In a south-facing hall flooded with light reflected off the Mediterranean, the marbles would have rippled and reflected upon the lord of the house to appoint him all the more (il)lustr(i)ous. The Christian poet Ennodius makes the same parallel when describing a bishop’s house in Milan (Appendix 2.13). Moreover, it was as commonplace in antiquity as it is today to speak of people who “shine,” are “brilliant” in intellect, or “dazzle” with their speech. The Manichee Secundinus even flatters St. Augustine that his polished eloquence shines brighter than the marbles in the Palace of the Anicii in Rome. By extraordinary coincidence, it was these very marbles that Theoderic would despoil, c. 507-12 AD, probably for his own palace in Ravenna, so that they might become the joyful witnesses of our government, the sparkling embodiment of our reign, the herald’s call of sovreign power. We show these

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143 The halo was also used in imperial portraiture, e.g. on the silver missorium of Theodosius I, produced for his decennalia in 388: Kurt Weitzmann, ed., Age of Spirituality. Late Antique and Early Christian Art, Third to Seventh Century. Catalogue of the Exhibition at the Metropolitan Museum of Art, November 19, 1977 through February 12, 1978 (Westford MA: Princeton University Press, 1977), 74-76, cat. no. 64.

144 Secundini Manichaei epistola ad Augustinum (PL 42, Col. 574): “for I confess that the marbles of the Palace of the Anicii do not glow with such diligence nor so great industry as your writings shine with eloquence” (“ego nam fateor non tali diligentia nec tanta industria Anicianae domus micare marmora quanta tua scripta perlucent eloquentia”). Written 399 AD. Statius had compared brilliant marbles and mosaics of the baths of Claudius Etruscus to his friend’s “shining talent and effort” (Silv. 1.5.63-64). Seneca had used the metaphor in the contrary sense to extoll the literary style of Fabianus Papiriust, that he eschewed “fashionable polish” (“recentis politurae”) and did not use “a variety of marbles” (“desit sane varietas marmorum,” Ep. 100.5-6). Seneca rejected oratory that was too polished (“orationem politam,” Ep. 115.2). For intellectual brilliance and persons who shine: Hor. Carm. 1.5.12; Mart. 10.89.3; Catull. 2.5, 61.189; Anth. Pal. 9.399. The Palace of the Anicii lies under the present Villa Medici. For the rich revetments (including glass paste) of the aula absidata and grand portico: Vincent Jolivet, Henri Broise, and Marco Rossi, “Rome: Pincio (Jardins de Lucullus). Chronique du chantier 1998,” Mélanges de l’École française de Rome. Antiquité 111 (1999): 481-86; Vincent Jolivet, Henri Broise, and Martine Dewailly, “Rome: Pincio (Jardins de Lucullus). Chronique du chantier 1999,” Mélanges de l’École française de Rome. Antiquité 112 (2000): 432-53.
things with admiration to the ambassadors who can easily identify the sovereign with his residence.”

At Ostia, the ultimate agenda can only have been some celestial hyper-reality. Either this hall was so outlandish that even the bricks were made of marble, or its inner light was so strong that fired clay leaked a burning light. Significantly, such intarsiated brickwork would reappear in later palaces of light, the Christian basilicas, for example in the arcade spandrels of Santa Sabina in Rome (422-432; fig. 2.61) and the central, apse vignette in the Euphrasius Basilica at Poreč (530/550; fig. 2.62).

As important as luminosity was the shifting surface achieved by deploying tesserae of varying color. Today we think of luminosity predominantly in terms of light, although we still speak of some colors as “bright.” Text after text from antiquity onwards applauds the brightness of individual colors, purple for example, but also multicolored walls or paintings as though the juxtaposition of color alone made them sparkle. Thus the Ostia

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147 E.g. Hor. Carm. 3.1.42: “purpurarum sidere clarior” (“purple brighter than a star”); Mart. 5.23.6: “murice tinta veste nites.” James considers this a Byzantine characteristic but it has a far older history: Liz James, Light and Colour in Byzantine art (Oxford: Clarendon Press, 1996): esp.
reticulations are confected from nuggets of porphyry, Numidian marble, serpentine, and Phrygian marble (fig. 2.63) and the wall seems almost threaded with gems, so that the net surface will become as iridescent as the rainbow or a peacock splay. Indeed, a famous passage in Ovid compared Arachne’s weavings with the rainbow, which “although a thousand different colors shine in it, the eye cannot detect the change from each one to the next... there too they weave in poliant threads of gold.”

The changeant surfaces of walls much like that at Ostia are extolled by the poet Nonnos (c. 470 AD), and as the anonymous Digenis Akritis epic (tenth/eleventh-century) remarks of the hero’s imaginary castle, “the craftsman so beautified his work that you might think that what you saw was woven out of the precious stones’ bright and multi-formed appearance.” At Ostia the metaphor, rather than mimesis, of the woven wall explains the broad band of small-chequer stones underlying the faux-opus mixtum (figs. 2.49, 2.63). Becatti himself argued that it resembled a wall-hanging (parapetasma), a checkered textile

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148 Clothes in turn could be weighed down with jewels (to become crustae) or, as Claudian describes Stilicho’s consular toga, embroidered with a “palace with columns of red marble” (De consulatu Stilichonis, 2.341: “rutilis hic pingitur aula columnis”).


150 Nonn. Dion. 18.62-63: Ἄλλ’ ὁτε ἵσσομένος σφάνη βασιλήως ἁλή / τῆλεφανής στύλβουσα λίθων ἐπεφόρχοι κόσμω (“But when they arrived, the king’s palace became visible, flashing afar with varicolored patterns of stone”). Nonnos adds (18.83-84): “the floor shone with the many branching patterns of multicolored mineral mosaics” (πολυσχιδέων δὲ μετάλλων / φαίνον ἐνσφιερίδι πέδων ποικίλλετο τέχνη).

and, in so far as the pattern seems equally inspired by weaving and mosaic, it creates a zone in which technique and allusion blend. An earlier floor makes the metaphor more literally apparent in its “weaving” of “three-ply” tesserae (fig. 2.65).\textsuperscript{152}

Exactly the years in which this room was decorated saw the last gasp of paganism, the desperate revolt of Nicomachus Flavianus on behalf of the usurper Eugenius (393-394 AD).\textsuperscript{153} Within a few more, the Goths would be at the gates and Ostia depopulating and headed into ruin. But this artistic summa saw little discontinuity with the Hellenistic conventions and Alexandrine culture to which it ultimately laid claim. Its meticulous artfulness was as much a testament to the enduring heritage that the patron embraced, as the materials were to his personal wealth. In the mind of the patron all these trappings put the domus squarely in the literary tradition of the house of light, which reached back to at least Homer and was constantly rejuvenated in the extravagant descriptions of fairytale palaces in lands where the sun rose: for example, the Alexander Romance of Julius Valerius Polemius (340/361 AD). This author’s description of the palace that Candaces shows off to Alexander is close in time and spirit to the Ostia interior, and the nearest we now have to the desires of the original patrons to live in their imaginations:

The palace was adorned with truly stupendous workmanship and arrayed with such minerals that an observer would consider its richness, splendor, and the loftiness of the enterprise all on a par; nor was there any base thing inside

\textsuperscript{152} Museo Romano Nazionale delle Terme. To my knowledge, undated, unprovenanced, and unpublished.

unequal to the rest, and everywhere it shone brilliantly with a particularly burning light. All things gleamed everywhere, covered and adorned with silk drapes of purple color, woven in with gold and gems. Whether you marveled at the size of the regal gems, were bewildered by the colors, or overwhelmed by their sparkles, your opinion was not a figment of some delirium. Amid all the gold there was purple cloth, gems and much ivory, but it was in the ivory that you appreciated the greater artistry. There was plenty of onyx and columns made of gems, all of which were taller than our trees, and the highest of them were also inlaid with the best ebony; polishing gave yet others the look and color of the blue sky, yet many of them were purple, and another stone feigned ebony.

And there the scores of effigies in both varied marbles and minerals of every conceivable sort were beyond number, and their profusion vanquished the heart of any inquisitive person. Among all these things one could see that the most outstanding of the queen’s possessions was a temple carved from a single gem, including its columns hewn from the same material...

And Candaces led Alexander with her through her hall and all the secret chambers and recesses of the palace, and on departing them, showed him certain buildings made of one stone, which, because its brilliance is so fiery (they even call it “lychnites”) seemed to beholders to be made from the same stuff as the rising sun. In the same quarters he also saw a triclinium of another type of stone, which, since it includes fiery spots or embers just like meteorites [?], seemed to be really flaming, and made you wonder if the seven heavenly bodies were running hither and thither and the stars performing their celestial dance in all eagerness and under a cloudless sky. And the revolving roof was just like an entire structure made of precious marble\(^\text{154}\)

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\(^{154}\) 3.22.802-827, 831-833, 849-860: “Domus vero egregio opere elaborata hisque metallis insignita erat ut intuentibus splendor ornatus pariter et celsitudo moliminis undique sudo quodam ignito lumine coruscaret, nihil in sese dispars aut vilius possidens. Usquequaque lucebant omnia veste serica, colore purpurea, intexta auro, gemmis admixta, quae veste co<er>ta fuerant et perornata. Gemmarum vero regalium utrum magnitudines mirarere an vero coloribus du<ere> an fulgoribus vincerere iudicium prae stupore non erat. Inter aurum sane purpureaque texta vel gemmas ebur multum, sed in ebo<re> viser<er> artis pretia maiora. Onyx pro satis et columnae de gemmis et earum proceritudo ubique supra nostrates arbores, sed quae sint procerissimae, fuer<er> nis, ebeno tamen plurima interpolante; quod si sit ad caeruli speciem vel colorem levigatio, tamen plerumque ex ea purpura aliud esse quam si saxum ebemun mentiebatur […]

Illic et effigies plurimae tum e marmore vario tum e metallo cuiuscumque modi renue<re>bant numeri aestimationem, quae omnis curiosi diligentiam vincerent, adeo multa erant.
Quae inter omnia id sane praecipuum regi operis videbatur quod una de gemma sculptum templum indidemque columnas cerneret interscalptas […]

Comprehensum igitur Alexandrum Candace per aulam suam omniaque regiae secreta ac penetralia circumducit, secession quosdam ei aedium monstrans ex uno lapide, cuius quod fulgor ignitus est – nam lychnitem etiam vocant – intuentibus visitur opinio quaedam indidem solis orientis. Triclinium quoque ibidem videt alio de saxi genere, cui cum sint ignaea quaedam maculae vel inustiones haud secus *haec qua ei cadenti lapides sunt* flammea visitabantur quam si caelitus septem astra discurrere stellasque omni studio et sereno sub tempore caelestem chorum agere mirere. Erat et tectum ad instar integrae domus marmoris pretiosi opere circumforaneo.” Michaela Rosellini and Roberto Calderan, eds., Iuli Valeri Res Gestae Alexandri Macedonis Translatae ex Aesopo Graeco (Leipzig: G. Teubner, 1993), 157-60. “Circumforaneus” here indicates an object on wheels which can therefore swivel: Cf. Apul. Met. 4.13. Celestial motion is obviously intended and Polemius probably had in mind the famous dining room in the Domus Aurea whose vault revolved night and day (Suet. Ner. 31.2). “Domus” in the same line could be a Latinisation of oikodomia (“structure”) or the earliest instance of its medieval meaning “dome,” suggesting a covering like that on the Mausoleum of Theoderic.

The romance of Pseudo-Callisthenes originally dates to the 2nd or 3rd century BC, and the Greek text is much simpler. The relevant section is in Wilhelm Kroll, ed., Historia Alexandri Magni (Pseudo-Callisthenes), vol. 1 (Berlin: Wiedmannsche Buchhandlung, 1926), 119-20.
Appendix 2

1) Cleopatra's Palace, c. 65 AD (Luc. De Bello Civili 10.5.111)

...explicuitque suos magno Cleopatra tumultu nondum translatos Romana in saecula luxus. ipse locus templi, quod vix corruptior aetas extraut, instar erat; laqueataque tecta ferebant divitias, crassumque trabes absconderat aurum.

...and with great bustle Cleopatra disclosed her full pomp (that which future Roman generations were yet to adopt). This place was the very image of a temple, the kind that even a more corrupt age could scarcely amass; the ceiling coffers weighed wealth and thick gold hid the rafters. And the house flashed with encrustations of the most choice, sawn marbles and not merely with a thin layer of it; and agate stood there on its own account, no useless ornament, and porphyry. Alabaster was laid all over the hall to trample; and the ebony of Meroe, no mere covering for the great doors, took the place of common wood — a support and no mere decoration of the dwelling. Ivory clothed the entrance-hall; and Indian tortoise-shell, artificially colored, was inlaid upon the doors were adorned with many an emerald. Jewels glittered on the couches; the cups tawny with jasper, loaded the tables, and the coverlets of divers colors — most had been steeped in Tyrian dye and took their hue from repeated soakings, while others blazed with scarlet, as the Egyptian manner is of mingling leashes in a web.

2) The Baths of Etruscus (Mart. Ep. 6.42.8-21)

Nec summis crustata domus sectisque nitebat marmoribus, stabatque sibi non segnis achates purpureusque lapis, totaque effusus in aula calcabatur onyx; hebenus Meroitica vastos non operit postes, sed stat pro robore vili,

Nowhere is the sunlit sheen so cloudless; the very light lasts longer there, and from no spot does day withdraw more lingeringly. There bloom the minerals of Taygetus, and compete in varied beauty the rocks which the Phrygian and Libyan has more deeply hewn. The greasy alabaster pants dry heat, and snakestones warm with subtle fire. If Spartan methods please you, you can content yourself with dry warmth, and then plunge in the natural stream of the Virgin Marcia, which glistens so bright and clear that you would not suspect any water there, but would fancy the Lygdian marble shines empty.

3) Marbles and Luxury, c. 64 AD (Sen. Ep. 115.8-9)

Illos reperti in litore calculi leves et aliquid habentes varietates delectant, non ingentium maculae columnarum, sive ex Aegyptiis harenis sive ex Africæae solitudinibus adventae porticum aliquam vel capacam

Children are pleased by the smooth and variegated pebbles which they pick up on the beach, while we take delight in tall columns of veined marble brought either from Egyptian sands or from African deserts to hold up a colonnade or a dining-hall large enough to
populi cenationem ferunt. Miramur parietes
tenui marmore inductos, cum sciamus, quale
sit quod absconditum. Oculis nostris
inponimus, et cum auro tecta perfudimus,
quid aliud quum mendacio gaudemus?
Scimus enim sub illo auro foeda ligma
lattitare.

4) Scipio’s House and Modern Manners, c. 64 AD (Sen. Ep. 86.5-7)
Magna ergo me voluptas subit
contemplantem mores Scipionis ac nostros: in
hoc angulo ille “Carthaginis horror”…
abluebat corpus laboribus rusticis fessum…
Sub hoc ille tecto tam sordido stetit, hoc
illum pavimentum tam vile sustinuit.
At nunc quis est, qui sic lavari sustineat?
Pauper sibi vedetur ac sordidus, nisi parietes
magnis et pretiosis orbibus refulserunt, nisi
Alexandrina marmora Numidicis crustis
distincta sunt, nisi illis undique operosa et in
picture modum variata circumlitio
praetexitur, nisi vitro absconditur camera,
nisi Thasius lapis, quondam raram inaliquo
spectaculum templo, piscinas nostras
circumdedit, in quas multa sudatione corpora
represent objects and animals. We have even
begun to paint in [or on] stone. This was
invented in the principate of Claudius, while in the
time of Nero a plan was discovered to give variety to
uniformity by inserting markings that were not
present in the embossed marble surface, so that
Numidian stone might show oval lines and Synnadic
Chapter 2. Homes Fit for Heroes

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incendiis perdat. marble be picked out with purple, just as fastidious luxury would have liked them to be by nature. These are our resources to supplement the mountains when they fail us, and luxury is always busy in the effort to secure that if a fire occurs it may lose as much as possible.

6) The Triclinium of Domitian, 93/94 AD (Stat. Silv. 4.2.10-11, 18-31)

Mediis videor discumbere in astris cum love [...] I seem to be dining with Jupiter amongst the stars [...] Tectum augustum, ingens, non centum insigne columns, sed quantae superos caelumque Atlante remisso sustenere queant. Stupet hoc vicina Tonantis regia, teque pari laetantur sede locatum An edifice august and huge; not magnificent because of a hundred columns, but enough of them to support heaven and the gods if Atlas were eased of his burden. The neighboring palace of the Thunderer views it with awe, and the spirits rejoice that you are lodged in an equal abode.

numina. Nec magnum properes escendere caelum; tanta patet moles effusaeque impetus aulae liberior campo multumque amplexus operti aetheros et tantum domino minor; ille penates implet et ingenti genio iuvat. Aemulus illic mons Libys Illiacusque nitens et multa Syene et Chios et glaucae certantia Doridi saxa Lunae portandis tantum suffecta columns. Longa supra species: fessis vix culmina prendas Visibus auratique putes laquearia caeli. Nor need you hurry to ascend to heaven above; the vast spread of the building, and the reach of the far-flung hall, more expansive than a plain, embracing beneath its shelter a vast expanse of air, and only lesser than its lord; he fills the house and gladdens it with his mighty spirit.

7) The Baths of Claudius Etruscus (Stat. Silv. 1.5.34-46.)

non huc admissae Thasos aut undosa Carystos, maeret onyx longe, queriturque exclusus ophites: sola nitet flavis Nomadum decisa metallis quoique Tyri livens fleat et Sidonia, rupes, purpura, sola cavo Phrygiae quam Synnados antro ipse cruentavit maculis lucentibus Attis, quasque Tyrus niveas secat et Sidonia rupes. vix locus Eurotae, viridis cum regula longo Synnada distincta variat. non limina cessant, effulgent camerae, vario fastigia vitro Attis bedewed with the bright drops of his own blood, and the snow-white cliffs that Tyre and Sidon quarry. There is scarcely space for stone from the Eurotas, whose long green line sets off marble from Synnas. The doorways are of no lesser splendor, the ceilings are radiant, the upper walls are alive, shining with figures in vitreous variety.

in species animosque nitent. stupet ipse beatas circumplexus opes et parcius imperat ignis. multus ubique dies, radiis ubi culmina totis perforat atque alio sol improbus uritur aestu. Neither Thasos nor wavy Carystos are suffered here; far off Onyx mourns, and the serpent-stone laments its rejection; only the stone hewn from the Nomads' yellow rocks gleams and that, at which Tyre's and Sidon's purple weep in envy, which in the hollow caves of Phrygian Synnas
8) The Baths of Tucca (Mart. Ep. 9.75-84.)

Non silice duro structilive caemento
nec latere cocto, quo Samiramis longam
Babylonia cinxit, Tucca balneum fecit,
sed strage nemorum pineaque conpage,
ut navigare Tucca balneo possit.

idem beatas lautus extruit thermas
de marmore omni, quod Carystos invenit,
quod Phrygia Synnas, Afra quod Nomas misit
et quod virenti fonte lavit Eurotas.
sed ligna desunt: subice balneum thermis.

Not from hard flint, concrete,
nor baked brick, with which Semiramis
girt long Babylon, has Tucca made his bath,
but massacred the woods and balks of pine,
so that Tucca may go to sea in his bath.

He also, luxurious man that he is! He builds
costly baths of every marble that Carystos uncovers
that Phrygian Synnas, that the African Nomad has
sent him,
and which Eurotas has washed green with his
spring.
But there is no wood: so put the bath under the
baths.

9) The Villa of Pollius Felix at Sorrento (Stat. Silv. 2.2.83-92)

Una tamen cunctis, procul eminet una diaetis,
quae tibi Parthenopen derecto limite ponti
ingerit.

Hic Grais penitus desecta metallis
Saxa: quod Eoae respergit vena Syenes,
Synnade quod maesta Phrygiae fodere secures
per Cybeles lugentis agros, ubi marmore picto
candida purpureo distinguitur area gyro;
hic et Amyclaei caesum de monte Lycurgi
quod viret et molles imitatur rupibus herbas,
hic Nomadum lucent flaventia saxa Thasosque
et Chios et gaudens fluctus spectare Carystos

Yet there is one room, which stands out far from all
the rest, and which over the straight track of sea
presents Parthenope to your sight.

Here are marbles hewn from the core of Greek
quarries: the stone of Eastern Syene, splashed with
veining, and that which Phrygian axes hew in
mournful Synnas over
the fields of wailing Cybele, whereon the white
expanse is bordered by a rim of purple; here too
are green blocks shorn from the hill of Lycurgus at
Amyclae, where the stone counterfeits the grass;
here gleam the tawny rocks from Numidia, Thasian
marble too and Chian, and Carystian stone that
joys to behold the waves...

10) The Palace of Venus (Stat. Silv. 1.2.145-157)

…pandit nitidos domus alta penates
claraque gaudentes plauserunt limina cycni.
digna dea est sedes, nitidis nec sordet ab astris.
hic Libycus Phrygiousque silex, hic dura
Laconum
saxa virent, hic flexus onyx et concolor alto
vena mari, rupesque nitent quis purpura saepe
Oebalis et Tyrii moderator livet âeni.
pendent innumeris fastigia nixa columnis,
robora Dalmatico lucent sociata metallo.
excludunt radios silvis demissa vetustis
frigora, perspicui vivunt in marmore fontes.
nec servat Natura vices: hic Sirius alget,
bruma tepet, versumque domus sibi temperat
 annum.

A lofty mansion spreads open a shining home and
the rejoicing swans flap upon the famed entrance.
The dwelling deserves the goddess, nor seems it
mean after the bright stars. Here is Libyan stone
and Phrygian, here hard Laconian rocks bloom
green, here are versatile alabaster and the vein that
matches the sea, here marble often envied by
Oebalian purple and the blender of the Tyrian
cauldron. Airy gables rest on countless columns,
beams glitter allied with Dalmatian ore. Cool
descends from the ancient trees, shutting out the
sunshine, translucent fountains live in marble. Nor
does Nature observe her order: here the Dog Days
are chill, here midwinter warm. The house tempers
the changing year to its liking.
I nunc, et Phrygiis sola levia consere crustis
tendens marmoreum laqueata per atri
campum.
ast ego despectis, quae census opesque
dederunt,
nature mirabor opus, non dira nepotum
laetaque iacturis ubi luxuriatur egestas.
hic solidae sternunt umentia litora harenae,
nec retinens vestigia pressa figuras.

Go now, and with Phrygian slabs lay out smooth
floors that spread a marbled field through the
coffered halls. But I, scorning what wealth and
riches have bestowed, will marvel at Nature’s
creation, and not where detestable waste revels
happy in the excesses of spendthrifts. Here firm
lands pave the moist shores, and the foot resting
on them leaves no recording print behind.

12) Gregory of Nyssa on costly homes (mid/late-4th century)\(^{155}\)

Because man is naturally too feeble to withstand
the extremes of heat and cold: up to that point, the
house has only what is useful for life. But pleasure
has forced man to exceed the limits of need. In
effect, because man does not [only?] seek to
procure for his body that which he needs, but
[also?] occupies himself with the joys and delights
of his eyes, he is almost chagrined at the thought
he is unable to make the sky itself into his roof,
and that he cannot affix the rays of the sun as well
to his roof. It is for this reason that man vastly
extends his constructions in every direction,
making the ensemble of his residence like another
world for himself.
He raises the walls to the greatest height possible;
he decorates it with the materials that are inside
the houses [lacuna] obtaining, through their
mutual agency, the variety for the internal
arrangement of the houses. Then, stone from
Sparta, Thessaly and from Carystos are cut with
steel into slabs, and even the quarries of the Nile
and those of Numidia are sought out; for these
complex effects each one takes the Phrygian rock,
which, thanks to the random mixing of the purple
tint in the whiteness of the marble, becomes a
game for the most avid eyes, because she paints on
the white the dispersion of the varied color in a
thousand figures. Oh what efforts are made to find
such things, and what artifice is employed! Some
saw the stuff with water and steel; others work day
and night with their human hands, those who
extract the sawn blocks.

\(^{155}\) In Ecclesiasten homilia 3.4.320A–324A; PG 44, cols. 653-657). French trans. Françoise Vinel, ed.,
Cerf, 1996), 197-203.
wood cut from trees, transformed thanks to the artifice of technique, look anew like trees, from which branches, leaves, and fruits spring out of specially prepared niches.

I’ll say nothing about the gold, spread across the fine and vaporous veils, which highlights them all over with its color in order to attract to itself the envy of eyes; and the role of ivories for the refined ornament of entrances, the gold which covers their sunken parts, or the silver fixed with nails, and all the ornaments of this sort. What is there to say also about the floors of houses, whose stones in varied tints cause to shine, such that even one’s feet enjoy the beauty of the stones! What can one say about all the pretention of such houses! It is not the needs of life which render their arrangement necessary, but desire, which, by dint of deploying itself in the useless, invents futility. In effect, it is necessary for houses to have passages, promenades, entrances, vestibules, and other means of access. And one has the thought that these doors, these steps, and this vast space inside the threshold are not magnificent enough if those who arrive don’t consider themselves to be before a spectacle whose grandeur immediately strikes everyone who enters. In addition there are baths whose pretention surpass simple utility and overflow, filled with entire rivers, in a profusion of fountains; on one side have been placed gymnasia, and all of that is beautifully executed with varied marble revetment, and on all sides around the residence, porticos supported on marble columns from Numidia, Thessalie, or Syene and bronze, to which a thousand forms have been given in statues, to obtain all those objects in which the desire for refinement can color material. And statues of marble, and the drawings on paintings, by which men debauch even their eyes, for art exposes by reproducing what we should not see, and everything one can see in those works is developed in order to surprize and please!

13) Ennodius, c. 503-513 (Carm. 2.10)

Versus in domo Mediolani scripti

Aedibus ad genium duo sunt concessa per aevum,
Si niteant crustis, aut domini merito.
Herbida pasturam simulatia saxa virentem
Inlicant oculos, nobiliore dolo
Pellant opus, tamen arte regat natura figuras,
Viscera dum lapidum fingit imaginibus,
Candorem roseo perfundat docta robore
Depingat sparsis congrua membra notis.
Aurum culmen ebur tabulas laquearia
gemmas
non datur humanis plus rutilare bonis.
In pretio cautis fors et sine lege iocatur.
Moribus ut constes, crede, laboris erit.

when she shapes the veins of the stones into images,
or skilfully bathes their whiteness with rosy vigor
and paints members joined by scattered specks.
Good people are not permitted to shine more than
gold, finials, ivory, paintings, coffered ceilings, and
gems.
In the value of the rough rock chance also lawlessly
teases custom so that you will agree, believe me, that
it was the product of labor.
Chapter 3

Marble and Divine Light in the Early Church

Marble’s radiance, color, and transparency continued to thrive as metaphor in Christian sacral architecture. Infused with color and luminosity, marble allowed these transcendent buildings to assimilate flowery meadows, starry skies, jeweled tapestries and, in particular, heavenly gems. Brilliantly polished marble was especially suited to the evocation of light, the first substance of Creation and God’s true nature, and paramount in the presentation of divine light were such church windows as were themselves mineral filters. From the outset marble fulfilled a vital role throughout the church interior as a shimmering reflection of the heavens.

The remains

Actual remains are paltry, surviving mostly in Rome and the most extensive examples are now only known from drawings. No marbled interior survives intact from the period between the fourth and sixth centuries, and many are fairly recent casualties. The Mausoleum of S. Costanza (337/351), for example, retained its intricate cladding and magnificent mosaics until 1620 when they succumbed to the ecclesiastical vandalism of the fanatical Cardinale Veralli. But, although Christian, S. Costanza was built as a mausoleum not a church so the earliest surviving ecclesiastical revetment is

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represented by the nave spandrels in S. Sabina, Rome (422-432; fig. 2.61).² A large patch of revetment also survives in the narthex of the Lateran Baptistery, Rome (432-440; fig. 3.1), but the extensive cladding of the baptistery proper went missing in the seventeenth century.³ The adjoining Oratory of the Holy Cross (461-468) was clad all over on an even more monumental scale, but this structure also fell victim to late sixteenth century demolitions and is only known from drawings (figs. 3.2-3).⁴ The city’s premier basilicas, not to mention a host of other foundations, must have been revetted all over but nothing survives. Old descriptions record traces of marble in St. John in Lateran and S. Maria Maggiore, but for old St. Peter’s there is no documentation whatsoever.⁵ In other buildings, like S. Maria Antiqua (fourth/sixth century) or the baptistery of S. Clemente (late fourth century), both in Rome, the revetments have not survived but


their backing mortar is sufficiently preserved to guess their layout.\textsuperscript{6} In still other cases, like S. Crisogono, Rome, we can be fairly sure of the design of the missing revetment from the surviving frescoes that were meant to imitate them.\textsuperscript{7} Besides all this, numerous floors survive in part or total, beginning with the Constantinian remains at S. Stefano Rotondo and St. John in Lateran.\textsuperscript{8}

Outside Rome even less remains. In Milan, just a few panels survive from the apse of S. Ambrogio, and at Cimitile thin strips of paving and apse revetting are all that testify to the panoply to which Paulinus of Nola dedicated so many resources and poems in the early fifth century (fig. 3.4-5).\textsuperscript{9} The most intact remains seem to be those in the Orthodox (or Neonian) Baptistery (c. 458), Ravenna, but these are much restored.\textsuperscript{10}

\begin{itemize}
  \item Spiro Kostof, \textit{The Orthodox Baptistery of Ravenna} (New Haven: Yale University Press, 1965): 57-58. Very heavily restored in the 1890s by the Opificio delle Pietre Dure, possibly following an earlier scheme – according to Kostof – but this workshop was very adept at reinventing antique patterns. Paola Novara, “Il ‘sectile’ parietale del battistero neoniano di Ravenna: un nuovo tentativo di lettura,” in \textit{Atti del VI
The Rising Sun and the Palace of Dawn

From the mid-third century AD, a vastly diminished imperial workforce meant that freshly cut marbles were in ever-shorter supply, especially in the West. The spoliation of marbles from demolished or decaying buildings had become a fact of life, and the practice accelerated in the fourth century. In 363 the Emperor Julian even surrendered the imperial monopoly on marble quarrying to entrepreneurs, expressly so that “countless veins of glittering stones might come to light.”

The more the luster of empire tarnished, the more the jeweled style of late-antique poetry salvaged motifs from a vanishing world to conjure up edifices that were mirages of flashing gems and marbles. The old topoi continued to haunt late antique poetry, and supply nostalgic and eloquent literati like Prudentius (348 – c. 410), Sidonius Apollinaris (c. 430-479/80), and Venantius Fortunatus (c. 535 - c. 605) with raw material for conceptualizing a new breed of construction, the Christian basilica. Every

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church was now a “Palace of Dawn,” while Christian epithalamia drew on Statius’ description of Venus’ marbled palace to show that marriages were still truly made in heaven.¹³ Late antique dreams of heaven, like Prudentius’ rhapsodies, easily collated images from such models and in turn fed Arabic poetry, or both recycled earlier common sources.¹⁴ Indeed, little distance separates Nonnos’ neo-Homeric description of the mythical Palace of Lyaios (c. 470 AD; Appendix 3.5) from contemporary eulogies of churches.

Concurrently, the conversion of numerous audience halls (aulae), domestic or civic and some palatial, into churches ensured a material continuity between the new Christian assembly halls and their secular predecessors.¹⁵ Early churches also assumed the royal title of “basilica” (basilika, “kingly”) and both church and palace were

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indiscriminately termed “aula” or “palatium.” Moreover, in panegyric and theology Christ now acceded to the old imperial title of the Rising Sun, “Who had risen again so as never to repeat His setting,” and Who had “rent the darkness of the nether world to shine forth with the light of resurrection.” It naturally followed that His feast day fell on Sun-day and that the new churches should face east, towards the sunrise, wherever possible.

New Light

Since there is such scant evidence for natural illumination in most classical temples, it is normally assumed that they were torch-lit, or that natural lighting only existed in those exceptional cases where temples were hypaethral (open to the air) or hosted other functions (for example, museums). A building like the Pantheon was a very special case. The rotating spotlight of sunlight cast by its oculus made the interior into a cosmic clock, “the admission of light at the top symboliz[ing] the fact that the sun, by sending in its light from the highest part of the heavens, illumines the whole world and that at its rising all things become visible.” But where pagan temples were

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18 The dies solis (day of the sun) now became the dies domnica (the Lord’s day). For the same reasons, Christmas day was fixed on 25 December, the Winter Solstice and also the feast day of the Syrian Sol Invictus and the Greek Helios.
completely inaccessible to both light and the general public, such hermeticism reflected the fact that – in strictly religious terms – they were embassies for the divine presence and the god’s private house.  

The cult structures of the new Christian religion were quite the opposite, places of assembly for communion with God and public fellowship in Christ. In the course of time, the sacrifice came to be made within the church to invoke the God, not outside the temple to placate it. But long before the Eucharistic rite became a diurnal occasion in the church, a communion by light was achieved when the church was filled with those divine illuminations, which were the subject of countless dedicatory inscriptions (tituli).

The much-quoted but virtually untranslatable, fifth-century titulus in the episcopal chapel of St. Andrew, Ravenna, is typical:

19 Macrobr. Sat. 1.18.11: “And on the hill of Zilmissus [Thrace] a temple is dedicated to that deity [Sebadius, a sun god], round in shape with an opening in the middle of the roof. The round shape of the temple represents the appearance of this star, and the admission of light at the top symbolizes the fact that the sun, by sending in its light from the highest part of the heavens, illumines the whole world and that at its rising all things become visible” (“eique deo in colle Zilmisso aedes dicata est specie rotunda, cuius medium interpatet tectum. Rotunditas aedis monstrat huiusce sideris speciem: summoq tecto lumen admittitur, ut appareat solem cuncta vertice summo lustrare lucis inmissu, et quia oriente eo universa patefiunt”). The Saturnalia were composed c. 431: Alan Cameron, “The Date and Identity of Macrobius,” The Journal of Roman Studies 56 (1966): 37.

20 There is no exclusive rule. For example, the Temple of Portunus by the Tiber had no windows, whilst the nearby “round temple” has two large windows. For the question of accessibility, most conveniently: John E. Stambaugh, “The Functions of Roman Temples,” in Aufstieg und Niedergang der Römischen Welt, ed. Hildegard Temporini and Wolfgang Haase (Berlin/New York: Walter de Gruyter, 1978), 554-608.

Either the light is born here or, made captive, it here reigns freely.
   Either it is the light of before, whence came the modern glory of heaven,
Or else deprived [of light] the building engenders the gleaming day
   And the trapped radiance glows though heaven is secluded.
See how the marbles are rejuvenated by the serene rays,
   And all stones struck in the starry purple vault.
These gifts resplend thanks to their author, [Bishop] Peter.
   To him belongs honor, to him belongs merit for composing small things
In such a way that they overcome the large by compacting the intervals.
   It is no mean thing for Christ [that He] possesses a well-jointed house\textsuperscript{22}

\textit{“God is Light and in Him is no darkness at all” (I John 1:5), and tituli as well as encomia, consecration speeches, and theological texts all proclaimed that the beams flooding the church interiors exorcized the site with their cleansing light. In these divine throne-rooms the surplus of light reminded the devotee that “the happiness of the Lord King on His arrival wipes away from the world, like the twilight of the sun, the trembling fear of gaping darkness.”\textsuperscript{23} Another titulus, in S. Agnese (625-38), Rome, spells this out:

   The golden painting rises aloft, made from fragmented minerals


And the bounded day is itself imprisoned;
You might believe this was the dawn silently advancing from snowy springs
Through the lowering clouds, moistening the fields with dew
Or such light as the rainbow brings among the stars
And the purple peacock itself, shining in color.
He who had the power to bring an end both to the night and to the light
Banished chaos hence from the tombs of the martyrs…

It hardly needs stressing that the sun’s rising stood for the resurrection, and the
impenetrable night for death. This catharsis made shadows flee, and the nocturnal
supplement of oil-lamps turned night into day. At the threshold the outside world
faded to grey and any human calendar was eliminated to make way for the teleological
apparition of the heavenly. In fact, the consecration ceremony programmed every
church to become an unveiling of heaven ("apocalypse"), when the full glory of God

24 AVREA CONCISIS SVRGIT PICTVRA METALLIS / ET COMPLEXA SIMVL CLAVDITVR IPSA DIES
/ FONTIBVS E NIVEIS CREVAS AVRORA SVNIRE / CORREPTAS NVBES RORIBVS ARVA RIGANS
/ VEL QVALEM INTER SIDERA LVCEM PROFERET IRIM [error for IRIS, nom.] / PVRPVTVE[V]SQVE
FAVO IPSE COLORE NITENS / QVI POTVT NOCTIS VEL LVCIS REDDERE FINEM / MARTYRVM E
BVSTIS HINC REPVVLIT ILLE CHAOS… Cf. apse titulus, S. Maria in Domnica (c. 817-824): “This house
was previously broken down into ruins. Now it glitters properly, decorated with variegated minerals. And behold its ornament shines forth like the sun in its orbit who chases the gloomy veils of hideous
night…” (ISTA DOMVS PRIDEM FVERAT CONFRACTA RVINIS / NVNC RVTILAT IVGITER VARIIS
DECORATA METALLIS / ET DECVS ECCE SVVS SPLVNDET CEV PHOEBVS IN ORBE / QVI POST
FVRVA FVRGANS TETRAE VELAMINA NOCTIS…)

25 “The day dies into the night… thus the exiled light mourns and yet is restored back to life again in the
whole world, with its ornament, with delight with the sun, the same integral and whole, destroying
death, her night” (Tert. De resurrect. 12: “Dies moritur in noctem… Ita lux amissa lugetur et tamen rursus
cum suo culto, cum dote cum sole, eadem et integra et tota, universo orbi reviviscit, interficiens mortem
suam noctem”); Ambrose’s funeral oration for Valentinian (392): “I seem to see you leaving your body
and, having dispelled the darkness of night, arise at dawn like the sun to approach God” (Ambr. De ob.
Valent. 64: “Videre igitur videor te tamquam de corpore recedentem et repulsu noctis caligine surgentem
diluculo sicut solem, adpropinquantem Deo”).

26 A similar observation underpinned Kant’s distinction between Classical and Gothic. In the cathedral,
even the light is altered by the stained glass, an invitation to forget the outside world so as better to
remember the incorporeal spirit within: Thomas M. Knox, ed., Hegel. Aesthetics: Lectures on Fine Art
would be exposed rather than known only through a glass darkly.\(^27\) Moreover, as bright as the physical light and its reflections were, they could only advertise the superior light of faith and anticipate its ultimate consecration at the Resurrection, when the new, spiritual sun would blot out the old, physical one.\(^28\) Then the eternal church would descend, empty save for light because it “had no need of sun, neither of the moon, to shine in it: for the glory of God did lighten it, and the Lamb is the light thereof” (Revelation 21:23). In fact, all the surviving texts stress that it is always dawn or high noon in the early church. Only much later, from the ninth century onwards, would awe-inspiring gloom become the consequence of, or motivation for, the growing use of stained glass.\(^29\)

The light of the early church was, like Creation, a generative light; like Pentecost, a revelational light; and like Ascension, an eschatological light. In the eyes of Paulinus of Nola (c. 354-431), this brilliant plasma reverberated around the interior renewing and regenerating itself (he says “novat et novatur”), to become trapped in matter and assure


\(^{28}\) SS. Cosma e Damiano (526-30): “God’s precious hall gleams with bright minerals, in which the precious light of Faith sparkles even more through the physician-martyrs, to the people the sure hope of salvation came, and this place grew because of that sacred honor…” (AVLA DEI CLARIS RADIAT SPECIOSA METALLIS / IN QVÆ PLVS FIDEI LVX PRETIOSA MICAT. / MARTYRIBVS MEDICIS POPULO SPES CERTA SALVTIS / VENIT, ET EX SACRO CREVIT HONORE LOCVS): Cf. Rodolfo Lanciani, “Degli antichi edifici componenti la chiesa di SS. Cosma e Damiano,” *Bullettino della Commissione Archeologica Comunale di Roma* 10 (1882): 38. Ennod. *Carm.* 2.8.2-3, 8: Xystus “joining the light of life to the worth of the work, established this temple [a chapel attached to S. Lorenzo, Milan]… this man offered this temple which He who will come consecrates” (“et lumina vitae / ad pretium iugens operis haec templum locavit / […] obtulit hic templum, veniens quod consecrat ille”).

the faithful that the numen remained in residence. When Avitus consecrated the church of St. Peter at Tarentaise, he even called it “a prison of light.” Such light foretold the final reward, union in the blaze of glory that was the Godhead, and the earliest surviving panegyric of a church, Eusebius’ exegesis of the church at Tyre (c. 317 AD), explains its internal splendor as matching that of Christ’s resurrected body (or the garments of salvation). The faithful were clothed in light, just like the masses basking in the reflections from highly polished marbles at the baths, and in this baptismal light they rediscovered themselves purified and reborn in Christ.

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30 Carm. 28.183-184: “it is radiant from the source of piety in the centre and in a miraculous manner it simultaneously renews and is renewed” (“medio pietatis / fonte nitet mireque simul novat atque novatur”: Rudolf C. Goldschmidt, ed., Paulinus’ Churches at Nola. (Amsterdam: Noord-Hollandsche Uitgevers Maatschappij, 1940), 82-83. Translation mine.


32 Hist. Eccl. 10.4.46ff.

33 Sid. Apoll. Epist. 2.2.4: “intra conclave succensum solidus dies et haec abundantia lucis inclusae ut verecundos quoque compellat aliquid se plus putare quam nudos” (“Within the heated chamber there is full day and this abundance of enclosed light forces all modest persons to feel themselves something more than naked”). Eusebius characterizes the baptismal light when he speaks of the “pure souls that have been washed like gold by the Divine bath” (Hist. Eccl. 10.4.64: τὰς ἀκηράτους ψυχὰς θείω λουτροσθενος χρυσοθ δίκην ἀποσμηρχθεῖς).
In vaulted churches, especially in the East, it was the golden mosaics that trapped the sun and reflected its light upon the faithful. The marble revetments sustained the effects. When Avitus (c. 450 - c. 518/526), Bishop of Poitiers from 490, speaks of the new churches he writes that the faithful must “polish with praise the glory of the marbles, from which only jealousy of their size denies the title of jewels” and laud “the daylight, somehow collected within by man’s labor, [so that the church] is alive with the light of so many gleaming minerals.” Coffered ceilings, as Paulinus zealously writes of his own church near Nola (401-404), also allowed it to be “arrayed in a new garment purified from old age... behold, you see how great a brilliance emanates from it, as if the church were regenerated, while the ceiling imparts an effect of shimmering waves to its decorations in relief.” Sometimes even tie beams were gilded too. Glowing tendrils of light reached down in the shape of pendent lamps, which

34 E.g. Anth. Pal. 1.3 (inscription in the apse of the Blachernae, Constantinople): “Justin the Elder made the splendid temple, of such brilliant beauty, dedicated to the Mother of God. A radiant light which conquered the dawn was given it by Justin the younger, who reigned after him.” (Ο πρώτος Ἰουστῖνος περικαλλέα δέιματο νησίν / τούτων μητρὶ Θεοῦ, κάλλει λαμπόμενον / ὑπὸ τοῦτον Ἰουστῖνος βασιλεῶν / θαλάσσων τῆς προτέρης ὀπτάσεως ἠγιασθη.) The apses were reconstructed by Justin II (565-78), although the church was not in reality built by Justin I (518-27).

35 “Expolire praeconiis marmorum dignitatem, quibus gemmarum nomen sola magnitudinis tollat invidia, collectum quodam modo atque inclusum industrique diem emolumento metallorum splendentium luce vegetari, hisque omnibus pompis digno inferri reliquias, quibus mundus indignus est”: Ep. 50, in Rudolf Peiper, ed., Alcimi Ecdicii Aviti Viennensis Episcopi Opera quae supersunt (Berlin: Weidmann, 1883), 78. For the whole text, with a slightly different translation of this passage: Shanzer and Wood, eds., Avitus, 327. Dedication of the church founded by Arigius, c. 500.

36 “Aula novos habitus senio purgata resumpsit... ecce vides quantus splendor velut aede renata / rideat insculptum camera crisparte lacunae” (Carm. 27, ll. 385-387; Goldschmidt, ed., Paulinus’ Churches, 54-55). Cf. Ven. Fort. Carm. 2.10.11-16: “The resplendent hall is raised on marble columns / and because it remains pure, greater is the grace which shines within it. / Illuminated by glazed windows, it is the first to capture the rays and, thanks to the artist’s hand, closes the day within its ark” (“Splendida marmoreis attolitur aula columnis / et quia pura manet, gratia maior inest. / Prima capit radios vitreis oculata fenestrī / artificisque manu clausit in arce diem”).
twinkled like stars to fend off the night and once more remind devotees of the true light to which they must aspire.\(^{38}\)

Two Archetypes of Heaven on Earth

1) The Jeweled City

The imagery of light and light-filled materials was a pan-religious vocabulary of great antiquity, but Judaic and Christian Scripture supplied two essential models for making the church a heaven on earth. One was rural, the other urban. The first, Ezekiel’s Eden, was a garden carpeted with nine precious stones that flashed with fire; the second, St. John’s City of God, was a divine stronghold whose walls were encrusted with twelve gems.\(^{39}\) From the early fifth century on, mosaics in church apses and on

\(^{37}\) “Twin rows of columns support gilded beams and keep up the paneled roof” (“ordo columnarum geminus laquearia tecti / sustinet auratis suppositus trabibus”: Prudent. *Perist.* 11.219-220).

\(^{38}\) “Therefore our halls shine, Father, with Thy gifts of noble flames; their emulous light plays the part of day when it has gone, and night with torn mantle flees before it in defeat. But who would not discern that the swift light has its source on high and flows from God?... The lamps gleam out, that hang by swaying cords from every panel of the roof, and the flame, fed by oil on which it floats lazily, casts its light through the clear glass. You would believe that starry space stood over our heads... Thou are the true light of our eyes, the true light of our minds; by Thee we see as in a glass within, a glass without” (“Splendent ergo tuis muneribus, Pater, / flammis nobilibus scilicet atria, / absentemque diem lux agit aemula, quam nox cum lacer0 victa fugit peplo./ sed quis non rapidi luminis arduam / manantemque Deo cernat originem?... / Pendent mobilibus lumina funibus / quae subfixa micant per laquearia / et de languidinis fota natatibus / lucem perspicuo flamma iacit vitro / credas stelligeram desuper aream / ornatam gemmis stare... / tu lux vera oculus, lux quoque sensibus, / intus tu speculum, tu speculum foris”: Prudent. *Cath.* 5.25-30, 141-146, 153-154). Loeb ed. trans. H. J. Thomson.

\(^{39}\) “Thou hast been in Eden the garden of God; every precious stone was thy covering, the sardius, topaz, and the diamond, the beryl, the onyx, and the jasper, the sapphire, the emerald, and the carbuncle... thou wast upon the holy mountain of God; thou hast walked up and down in the midst of the stones of fire” (Ezekiel 28:13, 14); “And the building of the wall of it was of jasper; and the city was pure gold, like unto clear glass. And the foundations of the wall of the city were garnished with all manner of precious stones. The first foundation was jasper; the second, sapphire; the third, a chalcedony; the fourth, an emerald. The fifth, sardonyx; the sixth, sardius; the seventh, chrysolite; the eighth, beryl; the ninth, a topaz; the tenth, a chrysophrase; the eleventh, a jacinth; and the twelfth, an amethyst. And the twelve gates were twelve
triumphal arches portrayed this divine city, encouraging a comparison between her jeweled walls and the revetted interior (fig. 3.6). By the late middle ages this apocalyptic gem symbolism had infiltrated consecration ceremonies and spread to church bell towers, now studded with porphyry and serpentine slabs as well as brightly colored, ceramic plates (fig. 3.7).

Orators, churchmen and patrons extolled the rural heaven over the urban one, and vice-versa, or they intersected and fused the two types to bracket the gamut of possibilities. A compromise heaven, a garden encircled by masonry walls, recurs from the ninth-century frescoes at S. Pietro in Civate (fig. 3.8) to Bartolomé Bermejo’s Christ showing the Crucifixion to the Patriarchs in Heaven (fig. 3.9; 1462 / 65).

Where funds permitted, real gems did stud the furniture of early Christian churches and, because pearly gates were said to swing on the heavenly hinges, S.
Chapter 3: Into the Middle Ages

Euphrasius at Poreč (530/550), for example, radiates with inset oyster-shells the size of dinner plates (fig. 3.10).^{45} But thanks to the Scriptural prototypes, it is also abundantly clear that early commentators were apt to describe marbles in the same language and regard them either as jewels or earthly reflections of the upper, jeweled heaven. The most stirring is Prudentius’ *Psychomachia* (c. 400), which portrays the ideal church as hewn out of gems the size of boulders (Appendix 3.1). Their fabulous scale comes into thrilling focus through images of whirring cranes that haul them to their mountainous summit.

Mosaic representations of church columns show that jeweled surfaces were desired and even accomplished in actual construction. The columns of the templon (sanctuary screen) in Hagia Sophia were studded with gems,^{46} while those in several sixth-century churches in Constantinople, most notably Hagios Polyeuktos, simulated the effects. That is, reticulate patterns were excavated in white marble shafts and these

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^{44} E.g. Ven. Fort. Mart. 3.509-516: “Oh sweet eyes, when you contemplate these happy figures, you have seen Zion and the array of its twelve gates, [you have seen Zion and its twelve splendid gates], that the Almighty loves over all the tabernacles of Jacob, those gates adorned with the varied splendour of gems, covered with chased gold leaf, artistically encrusted with emeralds, glittering with Chrysolite, snowy with shining pearls. Grace has spilled out all the treasures of love, and on each one shimmers a single topaz of a thousand colors. By these gates, that noble people of your kingdom, penetrate into the starry city, carried by their merits and they will dwell without end for ever and ever enrolled as citizens of heaven” (“O dulces oculi, facies cernendo beatas, / vidistis Sion ternas quarter ordine portas / [vidistis Sion speciosas ordine portas], / quas amat omnipotens ultra omnia culmina Iacob, / gemmarum vario redimitas lumine valvas, / sculptas bratteolis, inscriptas arte zmaragdis, / chrysolitis rutilas, niveas stellantibus albis. Quidquid amor potuit quo totum gratia fudit, / omnicolora decens et in omnibus una topazos; / per quas hinc populi genus illud nobile regni / intrant sideream meritorum gressibus urbem / et sine fine manent conscripti in saecula cives”: Solange Quesnel, ed., *Venance Fortunat: Vie de Saint Martin* (Oeuvres, Tome IV) (Paris: Les Belles Lettres, 1996), 71-72. This text dates to c. 576 AD


^{46} The 9th-century *Narratio* claims that Justinian “set in the gold columns [of the solea] precious stones, crystal, jasper and sapphire”: Mango, 100.
were then intarsiated with lozenges of colored glass, marble and hard stones like mounted gems (figs. 3.11-13).\textsuperscript{47} Maybe Ennodius (474-521), Bishop of Pavia, had such objects in mind when he wrote, “just as you say that the fleeces of China are dyed with purple, so the sojourning light adorns inlaid gems whenever art makes the snowy stone blush more beautiful.”\textsuperscript{48} These incised patterns were themselves then imitated in mosaic (fig. 3.14) and in ceramic tiles made to clad columns, columnettes, pilasters and wall panels, but they also recur in manuscript illuminations.\textsuperscript{49}


\textsuperscript{48} “vellera ceu Serum murice tincta feras, / qualiter inclusas comit lux hospita gemmis, / nix lapidis quotiens pulcrior arte rubet” (Ennod. \textit{Carm.} 2.56.8-10, on the Baptistry of Laurentius, Milan). Ennodius visited Constantinople on diplomatic missions (515, 517), but his literary output is normally dated to c. 503-13, on the arbitrary assumption that he did not compose literature after becoming Bishop of Pavia in 513: Johannes Sundwall, \textit{Abhandlungen zur Geschichte des ausgehenden Römertums} (Helsinki: Helsingfors Centraltryckeri och Bokbinderi Aktiebolag, 1919). Thus, Sundwall dates this text to 506.

Marbles were also directly compared to gems, especially the most prized varieties which had become the legal preserve of the imperial family. Mark the Deacon likened the Carystian columns in the Cathedral at Gaza to emeralds (after 420) and in Gaul, as we have seen, Avitus (513/516) claimed that only the size of church columns prevented the onlooker from calling them jewels.\(^{50}\) For centuries after, the popular imagination sustained that many churches, like the Basilica Ursiana in Ravenna, were entirely jeweled, when they were in fact clad with marble.\(^{51}\)

2) The Jeweled Meadow

Since John’s heavenly Jerusalem in *Revelation* was an architectural archetype, it was an obvious symbolic template for church decoration East and West. But the meadow metaphor was equally influential. Ekphrasists frequently compared the walls

\(^{50}\) Mark the Deacon, *Vita Porphyrii*, 1247.84: “magnae et admirabiles, numero triginta duae vero vocantur Carystiae: quae quidem sunt in sancta ecclesia, lucentes tanquam smaragdi.” This text is thought to be a compilation, c. 600, of texts originally written after 420. Cf. Isid. *Etym.* 16.5.15: “Carystium viride, optimum, nome ab aspectu habens, eo quod gratum sit iis, qui gemmas sculpunt: eius enim viriditas reficit oculos.”


and paving of the church, sometimes the whole interior, to a springtime meadow.\footnote{John Onians, “Abstraction and Imagination in Late Antiquity,” Art History 3 (1980): 7-11.}

Many historians have considered this simply a rhetorical convention. Yet, while it is obvious that paradise was a garden, and that any flowery metaphor therefore suited the church as heaven on earth, there were nuances to the idea of architecture as gardens in stone that encouraged its dissemination.


The open-ended cosmic spring of the church interior now signified the perpetual advent of the Lord.\footnote{For early descriptions of a Paradise without seasons, epitomized by Avitus’ assertion that “Autumn with its fruits and Spring with its flowers fill the whole year”: Henry Maguire, Earth and Ocean. The Terrestrial World in Early Byzantine Art (University Park/London: The Pennsylvania State Press, 1987): 25ff.}

Ezekiel’s garden had been filled with gems and marbles were easily compared to gems; spring buds (“gemmae”) were the gems of nature; and to complete the circle, the ekphraseis that exalted the gem-encrusted meadows of church interiors were themselves commended as the jeweled meadows (“prata gemmea”).\footnote{Roberts, Jeweled Style: 51-52. For buds as gems: Thesaurus Linguae Latinae, (Leipzig/Stuttgart: Teubner, 1900-): 6.2:1753.78-54.32. Poetic anthologies were also considered strings of literary gems: David Schur, “A Garland of Stones: Hellenistic Lithika as Reflections on Poetic Transformation,” in Labored in Papyrus Leaves: Perspectives on an Epigram Collection Attributed to Posidippus, ed. Benjamin Acosta-Hughes,}

The jeweled meadow was therefore the rhetorical image of fecund variety in any artistic pursuit (see Chapter 5).
As the generative light spilled down the walls of the church, it left images of procreation everywhere, especially floral ones, and these in turn crept up the walls on their way to the supernal light. This metaphysical photosynthesis stretched as high as the ceiling mosaics and Prudentius, again, speaks of a church that the patron had “spanned with curving arches of brilliant multicolored glass, like meadows bright with springtime flowers.”\(^5\) The topos of the springtime meadow was an all-encompassing metaphor that overruled material particularities to envisage an abundant palette, sunny relucency, and the season of nature’s regeneration. Inscriptions in fact stress that the walls “bloom” (virent) under the divine lamp.

Finally, though gems, and the materials that resembled them, conformed both to the letter of Scripture and the jeweled style of late antique letters, they also pursued an anagogical program. All glittering materials would bedazzle spectators, who “transferring that which is material to that which is immaterial,” would find themselves “dwelling, as it were, in some strange region of the universe which neither exists entirely in the slime of the earth, nor entirely in the purity of Heaven; and by the Grace of God, be transported from the inferior to the higher world in an anagogical manner.”\(^5\) These phrases of Suger, written in the mid-twelfth century, are now famous

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5 Perist. 12.53-54 (on S. Paolo fuori le Mura): “camiros hyalo insigni varie concurrit arcus / sic prata vernis floribus renident.”

57 Suger De admin. 33.199: “De materialibus ad immaterialia trasferendo… quasi sub aliqua extranea orbis terrarum plaga, quae nec tota sit in terrarum faece nec tota in coeli puritate, demorari, ab hac etiam inferiori, ad illam superiorem anagogico more Deo donante posse transferri”; Erwin Panofsky and Gerda Panofsky-Soergel, Abbot Suger on the Abbey Church of St.-Denis and its Art Treasures (Princeton; Guildford: Princeton University Press, 1979): 63-64.
and widely cited, but the Abbot was simply repeating much older metaphysical commonplaces. Centuries earlier Hypatius, Bishop of Ephesus (531-538) and one of the Emperor Justinian’s leading religious advisors, had explained a little less rapturously:

We allow even material adornment in the sanctuaries... because we permit each order of the faithful to be guided and led up to the Divine Being in a manner appropriate to it, [and] because we think that people are guided even by these [materials] towards intelligible beauty and from the abundant light in the sanctuaries to the intelligible and immaterial light

**Watery light and liquid gems**

One of the essential reciprocities in the medieval church interior, therefore, was between the seeping rays of the sun that spilt downwards, nurturing and arousing the light potentialities of lustrous materials and, conversely, their photosynthetic growth towards the light. But what goes up must come down. The Greek word for baptism was *Photisma*, which can mean both illumination and enlightenment, and Ennodius seems to make great play on these affinities in his ode *On the Font of the Baptistery of St. Stephen, and the Water which Came by Means of the Columns*:

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Behold, cloudless it rains under a roof in a serene shower,
And the pure face of heaven supplies the waters.
Flowing streams run from the sacred marbles,
And a rock again produces moisture.
For the dry upper-storey pours forth liquid springs,
And water from on high comes to the reborn.
The sacred water flows through the recesses of heaven,
summoned by the ministry of the priest Eustorgius.59

In some eighth-century Lombard baptisteries, the idea of bringing the holy baptism to earth from heaven was accomplished by turning the piers into hollow down-pipes for rainwater.60 Whether Ennodius’ epigram refers to such hydraulic contrivances or more poetically alludes to the shimmer and dewy properties of marbles, he does equate light with water, a metaphor of course highly suitable for a baptistery.61

59 “De fonte baptisterii S. Stephani, et aqua quae per columnas venit. / En sine nube pluit sub tectis imbre sereno, / Et coeli facies pura ministrat aquas. / Proflua marmoribus decurrunt lumina sacris, / Atque iterum rorem parturit ecce lapis. / Arida nam liquidos effundit pergula fontes, / Et rursus natis unda superna venit. / Sancta per aethereos emanat lympha recessus, / Eustorgi vatis ducta ministerio” (Carm. 2.149; PL 63, Col. 0361A-B). Translation courtesy of Michael Roberts. As he has noted to me, serenus is regularly used of a cloudless sky, so it is a nice paradox that rain should arrive “out of the blue,” indoors; Ennodius says iterum (“again”) because water from a rock repeats the biblical miracle of Moses; rursus natis (“the reborn”) refers to those reborn through baptism. By pergula we may perhaps imagine a columnar structure like that surviving in the Baptistery of St. John in Lateran.

60 See the example from the church of S. Maria at Gazzo Veronese: Silvia Siena Lusuardi et al., “Le traccie materiali del cristianesimo dal tardo antico al mille,” in Il Veneto nel medioevo. Dalla “Venetia” alla Marca Veronese, ed. Andrea Castagnetti and Gian Maria Varanini (Verona: Banca popolare di Verona, 1989), 176-77, figs. 87-88; Robert Coates-Stephens, “Gli impianti ad acqua e la rete idrica urbana,” in Atti del colloquio internazionale II Liber Pontificalis e la storia materiale Roma, 21-22 febbraio 2002, ed. Hermann Geertman (Assen: Koninklijke Van Gorcum, 2003), 146-47. The very explanatory inscription reads: [+‑] EN QVEM VIDETIS / DVCITE SVRSVM / QVI PVRGAT DEORSV(M) / ARVNDINEA HABENS / PONDVS / GESTAT VT COLVMNA […] II / STILLISCIDII IN EAM VERSAT: ECCLESIA / PVRGAT VNIVERSA (“Behold, raise up that which you see: descending it cleans. With its inside empty as a cane it bears the weight like a column… pour into this the rain water. The Church purifies all things.”) Water was apparently collected on the roof and channeled into the column. In this case, the assumption seems to be that there was a single tank, probably at the entrance, used for Iustration: S. Lusuardi Sienna and M. Sannazzaro in Eugenio Russo, ed., L’edificio battesimale in Italia, aspetti e problemi. Atti dell’VIII Congresso nazionale di archeologia cristiana : Genova, Sarzana, Albenga, Finale Ligure, Ventimiglia, 21-26 settembre 1998, 2 vols. (Bordighera: Istituto internazionale di studi liguri, 2001), 650ff., esp. 653 and note 14.

61 It is noteworthy that Ennodius’ poem seems to draw on Martial’s description of the Baths of Etruscus (Ep. 6.42), esp. ll. 8-10, 17-21: “nusquam tam nitidum vacat serenum: / lux ipsa est ibi longior, diesque
But the perception of light as in some way liquid has other implications for the use of shimmering stones on the church interior. Here marbles approached the upper light because of their capacity to scintillate, inherently reflecting the watery birth attributed to gems and marbles alike. As we have seen, marbles and all minerals were believed to be the sediment of earthy particles deposited by rainwater within the bowels of the earth and purified by the crust through which they percolated (Chapter 1). Other minerals were formed by freezing alone, the example *par excellence* being rock crystal. Thus, while Pliny explains how agate is the result of extreme heat, he explains that rock crystal is best found on mountain slopes because it is basically very hard ice (hence, in Greek *krústallos* means both “ice” and “crystal”). It is no wonder that in Islam and Byzantium, some hanging lamps were carved from crystal, shaped like beakers, or engraved to simulate fish swimming within their walls.\(^6\)

Not only crystal but many stones, especially those that approached the lucidity of gems, were also supposed to be of watery origin. It is still current usage in all Romance and Teutonic languages to speak of “the water” of a gem when assessing its luminosity and transparency, and the finest jewels are said to be “of the first water.” Yet Aristotelian and Theophrastian geology held that all stones must retain some measure

\nullo tardius a loco recedit… cruda Virgine Marciae mergi; / quae tam candida, tam serena lucet / ut
nullas ibi susceperis undas / et credas vacum nitere lygdon" ("Nowhere is the sunlit sheen so cloudless; the very light is longer there, and from no spot does day withdraw more lingeringly… plunge in the natural stream of the Virgin Marcia, which glistens so bright and clear that you would not suspect any water there, but would fancy the Lygdian marble [=Parian] shines empty").

of water for their particles to cohere at all. This conception may explain the curious observation of a Rabbi visiting Rome in the first century AD, who thought, “marble columns were covered with tapestries so that they might not crack during the heat and not congeal during the cold.”

Such meta-chemistry supplied physical rather than poetic reasons for believing in marble’s heavenliness, and the material science that underpinned the whole construct would remain seriously unchallenged until the seventeenth century. As Erkinger Schwarzenberg’s research suggests, the key to understanding pre-modern material hierarchies is to consider the physical nature attributed to rock crystal. Crystal was widely believed to be super-frozen ice that could resist the highest temperatures of all earthly furnaces. Crystal must therefore have been formed through fierce freezing beyond normal, terrestrial conditions, which had taken place during the

63 Theophrastus talks of a stone half-smaragdus half-iaspis (i.e. emerald-jasper) “as though the transformation from water were not yet complete,” and a fragment of Aristotle mentions that not only was air transparent “but also water and certain things composed of it, such as glass, crystal and certain bright stones”: David E. Eichholz, Theophrastus. De Lapidibus (Oxford: The Clarendon Press, 1965): 36-37. Seneca also reckons “in the earth also there are several kinds of moisture… which change from liquid to stone” (“in terras quoque sunt umoris genera… quae in lapidem ex liquore vertuntur”: QNat. 3.15.2-3).


primordial cold of Creation. It followed that the products of this divine permafrost were fossils of the original light, and therefore preserved traces of Creation and of the performing power of the Logos. In other words, divine light was frozen into their composition.

Since gems appeared to be colored crystals they could only be the product of crystal’s prolonged contact with certain minerals. As for marbles, they might be lower on the ladder of creation, but they were still thought to share the same crystalline essence as gems and crystals, just with more earthy matter mixed in. One word, *metallum*, in fact covered all the categories. Any mineral that could receive a polish shared a quintessential luminosity, their relative diaphaneity originating in a frozen, aqueous medium. Thus, light was inherently a dormant physical property with an

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66 E.g. Strab. 2.3.4, that some Indian gems: “are found by digging, being solidified from a liquid state, just as our crystals are” (τοὺς δ’ ὄρυκτοὺς εὐφύσκουσι, πεπηγώτας ἕξ ύγρον, παθάπερ τὰ χρυστάλλινα παρ’ ἤμιν).

67 *Metallum* is often mistranslated as “metal” but originally meant “quarry” and therefore anything that is mined, signifying gems, marbles and ores alike. In time it was applied to glass tesserae too. Of many examples: Stat. *Silv.* 2.2 (Appendix 2.9), where the catalogue of marbles begins with the words “Graecis metallis.”

68 The 10th-century Greek lexicon, the *Souda*, comments: “Transparent: they say that the transparent is a certain nature existing in many things, which allows color to pass through them. This nature potentially exists by itself when light is not present, but in actuality it becomes transparent when light is present. Not only a man [sic] and water are transparent but also many of the solid bodies, such as phengite rocks, horns, glass, gypsum and others. The nature of the transparent is that it exists in many underlying substances whilst being different from them, such that we can observe it also in other qualities. So the eternal upper body partakes of the transparency like the pouring out of the spheres. All of that is transparent, because we see through it the stars in the sky and the spheres are transparent but the stars not at all. That’s why they cover each other. Thus, the eclipse of the sun appears clearly to happen since it is covered by the moon.” Ada Adler, ed., *Suidae Lexicon*, 4 vols. (Lipsiae: B. G. Teubner, 1928-38), I:76: \[Διαφανές· διαφανείς φαιν εἶναι φῶςιν τινὰ ἐν πλείοσιν ὑπάρχονσαι, διαποθήκευτικὴν τῶν χρωμάτων, ἢτις φωτὸς μὲν μὴ παρόντος δύναμιν ἐστὶν αὐτὸ τοῦτο διαφανεῖς, ἐνεργεία δὲ γίνεται διαφανεῖς φωτὸς παρόντος, ἢστι δὲ διαφανῆ οὐχ ἀνή μόνον καὶ οὔδα, ἀλλὰ καὶ πολλὰ τῶν στερεῶν σωμάτων, οἷον φεγγίται λίθῳ, κέρατῳ, ἱέλῳ, γύψῳ καὶ ἐτέρα. ἢστιν οὖν τοῦ διαφανοῦς ἢ φύσις, ἢτις ἐν πλείοσιν οὐσίας ὑποκειμέναις ἔχει τὸ εἶναι, ἐτέρα αὐτῶν οὐσία, ὕσπερ καὶ ἐπὶ τῶν ἐτέρων ποιοτήτων ὑδάμεν, μετέχει δὲ...\]
innate bond to the heavenly spheres. Marble could recover this original light in a surface slick when it was polished, much as any stone becomes lustrous after it has been immersed in water.\(^6\) As counter-intuitive as it now seems, marbles were both solids and manifestations of a liquid light. The implications for a church interior will be thoroughly explored with reference to Hagia Sophia and its floor “like a sea” (see Chapter 5), but, to sum up, the common resemblance of shimmer to wetness, the “wet look” that mosaics and marbles alike could achieve, pointed beyond the surface to a substratum of physical affinities in an original nature.

Self-illuminating Stones

Like gems, marbles appeared to contain light, which, as dedicatory inscriptions seem to imply, lay dormant until solicited by the generative light from above. In some cases, however, particularly luminous stones were even believed to shine actively of their own accord.\(^7\) Suger attributes this property exclusively to “carbuncle,” but many

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\(^7\) Examples become common from the Hellenistic era on, in Callisthenes (*The Alexander Romance*, 2.41), Agatharchides of Cnidus (*On the Erythraean Sea* 5.84a), Philostratus (Apoll. 3.46) and Heliodorus
gems and semi-precious stones with a high refractive index (like cats' eyes) were said to function as the night-lights of churches and mosques.\textsuperscript{71} As regards marble, Theophrastus had remarked that the earliest reference to a self-illuminating stone, Herodotus' description of an emerald column that lit up the temple of Heracles at Tyre, referred to a monolith of green porphyry.\textsuperscript{72} In time, the divine luminescence perceived within stones, including windowpanes, would also come to fuel travelers' tales of marble slabs as ever-burning lamps.

Thus, travelers fêted the gleaming marble or alabaster panes, probably transenna panels, in Hagia Sophia and Hosios Loukas until the eighteenth century,\textsuperscript{73} and a


\textsuperscript{72} Hdt. 2.44; Theophr. \textit{De Lap.} 4.25. The stone in question may actually have been malachite: David E. Eichholz, “Theophrastus \Pi\epsilon\iota\zeta\iota\iota\varphi\varsigma\iota\varsigma \lambda\iota\theta\iota\omicron\nu\omicron, 25,” \textit{The Classical Review} 8, no. 3/4 (1958): 221-22.

\textsuperscript{73} Reinhold Lubenau (1587) mentions marble panes “translucent marbles, many Ells long and wide, which are as clear as white Amber, so that the Sun shines through them.” (“durchscheinende Marmorstein, etliche Elen langk und breidt, welche so klahr wie weisser Burnstein, das die Sonne dadurch scheinet”); the Armenian Simeon of Lwov (1608/9) says in that in the gallery, “towards the West there were two flat marble slabs, through which the light shone, and which are called in Turkish \textit{yanar tas};” the Englishman John Covel (1674) remarks “in ye first windore in ye W. gall. (coming in on ye S. side) are several peices of white transparent stone, which I take to be Indian Alabaster;” they were seen also by the French traveller Grelot and the Englishman Veryard: Cyril A. Mango, \textit{Materials for the Study of the Mosaics of St. Sophia at Istanbul} (Washington: Dumbarton Oaks, 1962): 121, 28, 23. Jacques Paul Babin (1672) reports “c'est la nature de cette pierre, qui étant opposée aux rayons du Soleil, et probablement peu
medieval Russian pilgrim had perhaps a similar phenomenon in mind when he described the lamps in Hagia Sophia as existing “between the walls.”74 Certainly, the most attested and elaborate case of these glowing marbles is provided by the twin slabs in the medieval apse of the Christianized Parthenon, which were famed from Turkey to Iceland. Tales originally circulated about an inextinguishable lamp that burned in the temple,75 but with time this legend came to be transferred to the building’s marbles.


75 The Icelander Saewulf, who never actually visited Athens, mentions the “oleum in lampade semper ardens, sed nunquam deficiens” and the Liber Guidonis, a 12th-century Ms possibly from Ravenna, now in the library of Bourgogne, cites the “divinum lumen atque inextinguibile”: Anastasia Demetriades Norre, Studies in the History of the Parthenon (Ann Arbor: UMI, 1966): 45, 169-70 (note 6). Older editions of all the following Parthenon sources are collected in the appendix to Norre, Studies in the History of the Parthenon. Cf. J. P. A. van der Vin, Travellers to Greece and Constantinople. Ancient Monuments and Old Traditions in
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When an Italian traveler visited the church in 1394/5, he remarked, “in a chink of light in the wall of the church a light shines, as if from a lighted fire that never goes out. It is believed that the body of a saint is enclosed in the wall just there.” A succession of expectant and credulous European travelers would repeat the observation comparing the gleam to a glowing coal, to a carbuncle or to a twinkling star. Moreover, Turkish guides or latter-day Athenians assured these Europeans that the reddish stone was a perpetual lamp or the frozen paschal flame, that everybody from St. Paul to Mahomet had ignited it, and that it shone by day and night.


77 “Il avoit remarqué dans le fond en une pièce de marbre laquelle matière tout le temple est encrousté, deux troux enfoncés médiocrement avant, lesquels estoient rouges sans pouvoir deviner d’où procédait cette rougeur; qu’il avoit fourré le doigt dedans l’un et dans l’autre, sans avoir senty aucune chaleur… L’opinion des Turcs estant que derrière ce marbre il y a des lampes perpétuelles qui y bruslent jusques à présent”: Charles Schefer, ed., Journal d’Antoine Galland pendant son séjour à Constantinople (1672-1673) (Paris: E. Leroux, 1881), 38. Another visiter (in 1665/69) described it as “une pierre de deux ou trois pieds en carré, laquelle donne une lueur comme d’un petit charbon de feu, dans le petit trous que l’on y fait avec la pointe d’un couteau, et on m’assura que dans l’obscurité de la nuit tous ces petits trous que font les curieux qui la viennent voir paraissent comme de petites étoiles”: Hubert Pernot, ed., Voyage en Turquie et en Grèce du R. P. Robert de Dreux, amônier de l’ambassadeur de France (Paris: Les Belles Lettres, 1925), 155. Evliya Çelebi (c.1667) mocks the Christian tradition, though his alternative explanation is equally incredible: “the wise Plato, after placing firestone marble of Mount Tserekan, thin as paper, on the wall of the East side of this mosque, hung a lamp with wick to light the night. When the sun which lights the world appears from the tower of the world and begins to rise in the sky, these firestones are heated up, and so are the wicks which are dipped in turpentine, and the interior of the mosque is lit. All the infidels attributing this phenomenon to magic, used to call this the lamp of divine light”: trans. in Norre, Studies in the History of the Parthenon: 230. Cf. Babin (1672), above at note 54, records that “quelques uns attribuent cela [the effects of the Parthenon window] à un miracle de S. Paul.” An Italian (1674) “credono questi poveri Scismatici essere il loro Fuoco Santo, che vanamente sostentano scendere dal Cielo il Sabbato Santo nel Santo Sepolcro in mano del loro Patriarca”: Cornelio Magni, Relazione della città d’Athene, colle provincie dell’ Attica, Focia, Beozia, e Negroponte, ne’ tempi, che furono questi passeggiate da Cornelio Magni Parmegiano l’anno 1674 (Parma: G. Rosati, 1688): 65. In 1675 Guillet wrote “une lueur extraordinaire… venoit de deux pierres polies & éclatantes, placées assez près l’une de l’autre dans le gros mur, au fond de la Mosquée. Elles envoyaient l’image de deux lampes allumées, qui jettoient une grande lumiere. A mesure que nous avancions, l’éclat augmentoit. L’effet devoit estre bien plus grand la
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Windows of Divine Light

For the divine light to bring the walls alive, the church had to be fenestrated. Where churches were freestanding, like S. Apollinare in Classe (c. 534-539 AD) and S. Apollinare Nuovo (c. 500 AD) in Ravenna, or S. Giorgio in Velabro (847-855 AD) and S. Paolo fuori le Mura (324 AD) in Rome, large windows punctuated both nave and aisles. In the Basilica at Trier (c. 305/312 AD), a throne-room later converted to worship, there are no aisles but two ranks of superimposed windows. In many other cases, presumably to avoid mundane distractions like the local scenery, the windows were often located up in the clerestory (as in the Basilica of Junius Bassus, c. 335 AD, in Rome) and aisle windows, if they existed, were extremely narrow. Moreover, windowpanes were often

nuit. Leur couleur approche de celle de l’Escarboucle, & on a voulu examiner; car il y en a une, où l’on a fait un petit trou. Le Miroir de Virgile, que j’ay veu dans le Thresor de l’Abbaye de Saint Denis en France, & qui est de jayet, cede infiniment à l’éclat de ces pierres… Comme nous eusmes remarqué que les Turcs qui estoient avec une espece de respect, de peur d’estre accusez de profanation, nous n’osames les toucher pour rechercher la cause de leur effet […] Ces ministres [the Imam]… attribuerent la cause de cette lumière à un miracle du Prophet Mahomet… Comme les pierres sont transparentes, il faut de deux choses l’une, ou que deux lampes les éclairent par derriere, ou que les lampes situées avec justesse dans la muraille opposée, envoyent leur image dans les pierres comme dans un miroir”: Georges Guillet de Saint-Georges, *Athènes ancienne et nouvelle et l’estat present de l’empire des Turcs* (Paris: E. Michallet, 1674): 195.


translucent rather than transparent and even where nave apertures were filled with clear glass (such as was available) the only glimpse afforded the faithful was of the sky.\textsuperscript{79}

But windows were far from being passive means of illumination and, as the entrances of divine light, they became autonomous presences. In the early eighth century, Bede tried to convey the symbolic agenda of church windows when he explained (c. 729-731) why the windows in Solomon’s Temple had been funnel-shaped (i.e. with their jambs splayed toward the interior):

The windows of the temple are the holy teachers and all those spiritual people in the Church to whom, when in divine ecstasy, it is granted more specially than others to see the hidden mysteries of heaven. And when they reveal publicly to the faithful what they have seen in private, they fill the inner recesses of the temple as windows do with the sunlight they let in.\textsuperscript{80}

\textsuperscript{79} Cf. Alberti: “The window openings of a temple should have modest dimensions and should be placed high up, where they have a view of the sky, which will not divert the minds of the celebrant or suppliant from divine matters,” \textit{De Re Aedificatoria}, lib. VII, cap. 12 in Joseph Rykwert, Neil Leach, and Robert Tavernor, eds., \textit{Leon Battista Alberti. On the art of building in ten books} (Cambridge, MA/London: MIT Press, 1988), 223.

Such symbolism was old by the time Bede repostulated it. It crops up in Byzantine sources, and if we turn to the mosaics within Sant’Apollinare Nuovo in Ravenna (556–69) the windows alternate and are paired with book-wielding saints, the so-called “holy teachers” (fig. 3.15). Likewise in the nave tympana of Hagia Sophia the ninth-century mosaics of prophets and the luminaries of the Eastern church also assume a parity with the windows next to which they stand, overshadow them, or are even ensconced in blind arcades that imply fictive windows (fig. 3.16). In fact, in these tympanum mosaics the pyramid of windows and saints, whose apex is a trinity of windows, becomes a diagram of dissemination from on high, like a representation of Pentecost. The cumulative message was that however many the windows, the light always derived from the same source, and this testified at one and the same time to the singularity of the Lord and the multitude of His agents.

In Bede’s exegesis and its precursors, windows are not absences but figures, not voids but mediators. In Eusebius’ words, the windows of the ideal church “shed light with apertures towards the light.” They are antennae, both emitters of divine effluence into the human realm and portholes onto the heavenly one. In fact, some etymologists even derived the Latin word fenestra from φωστήρ (phoster, “star”). Moreover light was

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81 E.g. the dedication hymn for the Cathedral at Edessa (c. 543-554): Appendix 4.2, strophes 13-14.

82 The saints were added to the tympana between 867 and the 880s: Mango, Materials: 48-65, diagrams III-IV, pls. 57-89; Wilhelm Salzenberg, Alt-christliche Baudenkmale von Konstantinopel vom V. bis XII. Jahrhundert (Leipzig: Karl W. Hirsemann, 1854): pl. IX. In the lowest register the ensconced saints stand in front of fictive transennae. Triplets of windows at Edessa (see previous note) were regarded with Trinitarian significance, as were those in the apse of Hagia Sophia: Diegesis 12; Gilbert Dagron, Constantinople imaginaire: études sur le recueil des ‘Patria’ (Paris: Presses universitaires de France, 1984): 203.

83 Euseb. Hist. Eccl. 10.4.64: τοῖς δὲ πρὸς τὸ φῶς ἀνοίγμασιν κατανυγάζει
viewed as having an almost corporeal presence. In the clerestories of the so-called Mausoleum of Galla Placidia in Ravenna (c. 454), and the San Zeno Chapel (c. 817-824) at S. Prassede in Rome, the saints flanking the windows actually turn inwards to face the illumination, as though Christ Himself had stepped over the lintel (fig. 3.17). In the latter case, the revelational window also faces a mosaic representation of the etimasia, or the throne that remains empty until the Final Coming (fig. 3.18). Unfortunately, the original materials of these windowpanes are unknown and can only be surmised (see Appendix A for further discussion).84

At Sant’Apollinare Nuovo, each didactic saint is circumscribed by an implicit niche, whose vault is an umbrella-shaped velarium (in the next register up) that rhymes with the shape of the adjacent window. Lucretius had written stirringly of the rainbow effects that resulted when sunlight passed through real amphitheater velaria, “painting the people below,” and it must have been a ready metaphor for a multicolored, heavenly light in the early centuries of official Christianity, when observers were still familiar with the spectacle.85 Velaria also reappear, long after the actual canopies had

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85 Lucretius, repostulating the Epicurean theory of decortications, notes that some surfaces seem to cast color: “this is often done by yellow and red and purple awnings, when outspread in the public view over a great theatre upon posts and beams they tremble and flutter; for then they dye, and force to flutter in their own color, the assembly in the great hollow below, and all the display of the stage, and the stately company of the Fathers: and the more the walls of the theatre are enclosed by them all round, the more all within laughs in the flood of beauty when the light of day is thus confined” (“Et volgo faciunt id lutea russaque vela et ferrugina, cum magnis intenta theatris per malos volgata trabesque trementia flutant; namque ibi consessum caveai subter… patrum turbanque decoram inficiunt coguntque suo fluitare colore. Et quanto circum magis haec intus perfusa lepore omnia conrident correpta luce diei”: Lucr. 4.75-83). Complete sources are assembled in Rainer Graefe, Vela erunt: die Zeltdächer der römischer Theater und ähnlicher Anlagen (Mainz am Rhein: Philipp von Zabern, 1979). Gladiatorial games were outlawed in 438 by Valentinian III, but beast-hunts continued until much later. Velaria were also used in the circuses.
become obsolete, at the apex of much later Christian apse-mosaics where there were considered to be metaphors for divine light, just like the sun-painted clouds that accompany scenes of Christ’s ascension (3.19).\textsuperscript{86}

Like the velarium, the window filter was the agent for commuting daylight into divine light and converting the church interior into a heaven. In theological terms the difference between this original light, which was God’s essence, and its emanation in visible or created forms eventually came to be codified as the divide between “increate light” (or \textit{lux}) and “created light” (or \textit{lumen}).\textsuperscript{87} Because the church was a catoptric and cathartic vessel the windowpane was a necessary diaphragm between the two lights, without which the ordinary mortal would have been overwhelmed and consumed by the supercharged splendor of His visage.\textsuperscript{88} Moreover, just as Christ Himself was the

\begin{itemize}
\item which were unaffected by the ban. Note that Ambrose describes the deceased Theodosius as assumed into the “awnings” of Christ (Ambr. \textit{De ob. Theod.} 1).
\item The present panes at Sant’Apollinare, glass painted in imitation of alabaster, are 20\textsuperscript{th}-century.
\item The difference between \textit{lux} and \textit{lumen} was only systematized by the Scholastics in the 13\textsuperscript{th} century. The literature is large and disperse, but: Fabio Barry, “Lux and Lumen: Real and Represented Light in Baroque Architecture,” \textit{Kritische Berichte} 4 (2002): 22-37 with bibliography; Constantine P. Charalampadis, “The Representation of the Uncreated Light (\textit{Lux Increata}) in the Byzantine Iconography of the Transfiguration of Christ,” \textit{Arte Medievale} 2 (2003): 129-36.
\item This may also account for modern confusion over whether the \textit{mishkat} in Mohammed’s definition of God’s light (\textit{Qur’an} 24.35) is a window or niche: “God is the Light of the heavens and the earth. His light is like a niche [\textit{mishkat}] within which is a lamp, the lamp enclosed in glass, the glass as if it were a pearly star… Light upon Light, God guides whom He will to His light; God sets forth parables for men, and God knows all things”: W. H. Worrell, “Note on Mishkat,” in \textit{Ignace Goldziher Memorial Volume}, ed. Sandor
\end{itemize}


lumen de lumine (the reflected “light of the light,” or lux incarnate) that illuminated the world, the saints were the Savior’s own reflections. They were more than appropriate figures for windows, then, in relaying the light of revelation.

Glass, Stone and Selenite

Because the brilliance of the Godhead could blind perception, surpassing all understanding, the author of Revelation chose translucent stones to epitomize the supreme deity’s brightness within the Heavenly Jerusalem: “like unto a stone most precious, even like a jasper stone, clear as crystal.” The force of the simile was twofold. While crystal expressed the super-rarified clarity of His light, the color of jasper embodied its necessary alterity to daylight. This alterity was desirable in the church where, for the created light to be re-created as in-create, daylight would have to metamorphose visibly, and the tint of diaphanous marbles or colored glass made this transformation more decisive than simple transparency. As Isidore says of colored window-glass, “at the same time it shut out and made manifest.”

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89 “See the great Paul who dwells in this shrine year in, year out, like a kind of sun, and sheds his light in every way on those who draw near him”: Downey, “Nikolaos Mesarites,” 893-94.

90 “Habentem claritatem Dei: et lumen eius simile lapidi pretioso tamquam lapidi iaspidis, sicut crystallum” (Revelation, 21: 11).

91 I reformulate here the formulation in Reuterswaerd, “Windows,” 78. Ruskin poetically expressed how onyx could substantiate light when he wrote that it had a “colour for which there are no words in language, and no ideas in the mind, – things which can only be conceived while they are visible”: John Ruskin, The Stones of Venice (London: Spottiswoode and Shaw for Smith Elder and Co., 1853): 3:285-6.
Clearly, the substance of the window filter was pivotally important and throughout the Middle Ages, glass, mica, selenite, and possibly alabaster (as well as glass imitations of alabaster, “jasper,” and possibly gems) were all used as glazing. Writers from antiquity to the sixteenth century mention stone panes but not a single antique or medieval pane still stands in situ. Observers from at least Alberti’s day firmly believed that “the windows that provide the temple with light would have... thin slabs of translucent alabaster or a lattice of bronze or marble... filled, not with fragile glass, but with specular stone,” and Vasari held that any manner of colored stones were used, even agates.

Of all the candidates only “specular stone,” a soft mica, was indubitably used in antiquity. Thin, translucent slabs have been found at Pompeii and Ostia (fig. 3.20), we hear of Caligula ordering windows from it in the halls of the Gardens of Maecenas, and a classical-era workshop for making them has been excavated at Qasrawet in the northern Sinai. In fact, this mineral was so associated with windows that in late...
antiquity it even lent its name to windows ("speculae") and thence, by a false etymology, to "speculation" of God. \(^9\) Lactantius (c. 240-320 AD) also seized on the metaphor of specular panes to explain human cognition: The mind peeps out of the skull through the eye, he says, whose lens resembles a misty pane, rather than being simply an abyss into which vision intrudes.\(^7\) Specular stone certainly glazed medieval churches, for the mineralogist Agricola mentions panes still extant in German churches in the sixteenth century.\(^8\) This stone, or the type called selenite, are also mentioned in

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\(^7\) *De Opificio Dei* 8 (PL 7, cols. 0038A): “manifestius est mentem esse, quae per oculos ea quae sunt opposita, transpiciat, quasi per fenestras lucente vitro, aut speculari lapide obducta” (“it is more manifestly the case that the mind which, through the eyes, sees those things which are placed opposite to it, as though through windows covered with pellucid glass or specular-stone”). Lactantius is at pains to refute Lucretius’ rehearsal of the Epicurean theory of decortications: the eyes are not holes into which the image-bearing rays pour, but the mind is the faculty that exploits the eyes for guided vision. Hence the stress on the lense of the eye as a diaphragm, like “specular stone.”

the Liber Pontificalis, while fragments of a synthetic equivalent have been recovered during excavations of ninth-century churches in Rome.\(^9\) Again, its properties as a glowing filter made it a worthy subject for a late fourth- or early fifth-century riddle:

**Specular Stone.**

*I am looked clear through and do not check eyesight,\*  
*Transmitting the wandering glance within my parts;*  
*Nor does the cold pass through me, yet the sun shines out within me.\(^{10}\)*

Dichroic glass was also used more than once. Such glass is opaque and jade-colored in reflected light, but shifts to amber in transmitted light, like the celebrated Lycurgus Cup now in the British Museum (figs. 3.21-2).\(^{101}\) Not only did it miraculously

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\(^{10}\) Symph. 68: “Specular. Perspicior penitus nec luminis arceo visus, / transmittens oculos intra mea membra meantes; / nec me transit hiems, sed sol tamen emicat in me”: Raymond T. Ohl, “The Enigmas of Symphosius” (PhD, University of Pennsylvania, 1928), 98-99.

\(^{101}\) Donald B. Harden and Jocelyn M. C. Toynbee, “The Rothschild Lycurgus Cup,” *Archaeologia* 97 (1959): 179-212; Donald B. Harden, *Glass of the Caesars* (Milan: Olivetti, 1987): 245-49 (cat. 139). It has been mooted that this, and other luxury vessels in dichroic glass, may have served as spectacular hanging lamps: e.g a
commute the daylight, but since dichroic effects are achieved by suspending minute quantities of gold and silver in glass, it must have seemed to follow Revelation almost to the letter. There the walls of the Heavenly Jerusalem are said to be of a gold so pure that they would be completely transparent to the lux within (Revelation 21:18, 21-25). In reality, producing glass that aped this higher reality was costly and in at least one case even prone to theft: the glass in the church at Yzeures (Auvergne) was so golden-hued that a cat-burglar made off with the panes in order to extract, unsuccessfully, the gold in his crucible.\footnote{\text{102}}

Besides Revelation, a pagan precedent would prove equally enduring. This was the mysterious phengites ("luminary-stone") that Pliny mentions, which was also hard, crystalline, and flushed with gold. Sejanus, Pliny wrote, had built the Temple of Fortune from phengites, "a stone as hard as marble, brilliant and translucent, even in those parts that were streaked with yellow veining… [and] thanks to this stone, even when the doors were shut, it gleamed like the day” inside. Pliny continues, “the effect was not like that from windows of specular stone, since it was as though the light was enclosed within, rather than transmitted from the outside.”\footnote{\text{103}} Christian alchemical writers were

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so impressed by the radiance of mysterious phengite that they even compare it to the brilliance of God.\textsuperscript{104} Nobody has ever identified this stone, though it is generally agreed to have been some sort of onyx, and since Pliny mentions a translucent stone used for windows in Arabia in the next breath, he might have been referring to the alabaster panes of Yemen that have now become famous (fig. 3.23).\textsuperscript{105}

Whatever the case, Pliny’s description of Temple of Fortune gave birth to an enduring myth. It was sustained and nourished in the latest versions of the old \textit{Alexander Romance}, and primed the imaginations of those travelers that brought back tales about self-illuminating slabs in the Parthenon and the like.\textsuperscript{106} Most observers

\begin{footnotesize}
\begin{enumerate}
\item Pliny \textit{HN} 36.46.163: “\textit{lapis duritia marmoris, candidus atque tralucens etiam qua parte fulvae inciderant venae, ex argumento phengites appellatus. Hoc construxerat aedem Fortunae… quare etiam foribus opertis interdiu claritas ibi diurna erat alio quam specularium modo tamquam inclusa luce, non transmissa.”
\end{enumerate}

\begin{enumerate}
\item E.g. Stephanos (c. 610/641 AD): “your Phengites rekindling astounds all my vision, your shining radiance gladdens all my heart” (\textit{σο’ ἐξανάπτων φεγγίτη’ πα’ σαν μον καταπλήττει τὴν ὀφθαλμήν, ἡ σὲ ἀποστέλλωσα αἰ’ γέλη ὀλὴν εὐφράνει μοι καρδίαν}); F. Sherwood Taylor, “The Alchemical Works of Stephanos of Alexandria,” \textit{Ambix} 1, no. 2 (1937): 122-23.
\end{enumerate}

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\item Gnoli, 220. Pliny only says that it came from Cappadocia; Strabo that large pieces were exported (12.2.10); the \textit{Suda} highlights its translucency without further ado (see below). The grammarian John Tzetzes equates it with Selenite (Comm. on Lycophron 98) but his testimony is very late (c. 1150) and \textit{Phengites} is likely a harder stone if Domitian lined the palace walls with it (Suet. \textit{Domit.} 14.4).
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\end{enumerate}

\begin{enumerate}
\item All the various texts cannot be cited here, but two far-flung versions will give some idea: the 5\textsuperscript{th}-century Armenian version speaks of “the bright rooms, made of a clear-coloured stone, that were so bright and shiny because of the marble planks, that it seemed as if the sun were inside the walls”: Albert Mugrdich Wolohojian, ed., \textit{The Romance of Alexander the Great by Pseudo-Callisthenes, Translated from the Armenian version} (New York/ London: Columbia University Press, 1969), 137. In the Ethiopian version, it is “a chamber which was built of stone like unto the heavens, and the splendour thereof dazzled every one who beheld it, for a man would imagine that the rising sun was shining in it… the chamber was very large and the walls thereof emitted rays of light and sparkled like a mirror”: Ernest Wallis Budge, \textit{The}}
would have found that onyx or translucent alabaster reproduced the effects that these texts had so stirringly described, and it is hard to imagine that medieval patrons avoided using slabs where they were available. But hard evidence is lacking. The earliest extant, and documented, examples known to me are the splendid alabaster windows in the nave of the Duomo at Orvieto, which began to be installed in 1292. The large slabs lighting the apse of San Miniato, Florence, are first mentioned in the early sixteenth century, but they could conceivably date back to the time of the church’s construction, between 1018 and 1207. Travelers mention now-missing examples in Turkey, and Reuterswaerd also suggests that alabaster panes can be inferred from the faux-alabaster sills and reveals in monuments like the late twelfth-century Byzantine church of St. George at Kurbinovo (near Lake Prespa, modern Macedonia) or the abbey

107 Describing the church of St. Justus, Lyons, Sidonius comments “Marble adorned by varied flickers / Spreads over the ceiling, floor, windows…” (Ep. 2.10.11-12: “distinctum vario nitore marmor / percurrit cameram solum fenestras”), but this could be hyperbole for specular stone.


church at Gurk in Carinthia (figs. 3.24-25). At Gurk it is also worth stressing that the iconographic matrix communicates that this missing alabaster pane can only represent *lux*, the increate light of the Godhead.

But supplies can never have been very plentiful, and alabaster windows were not used with the regularity that we have come to assume from the restored appearance of many medieval churches. It goes unrecognized that, besides Orvieto and San Miniato, virtually all the alabaster and onyx windows now visible in medieval churches are nineteenth- or twentieth-century reconstructions (fig. 3.26). The best-known examples in Rome, the nave windows of San Paolo fuori le Mura, are materially authentic inasmuch as they are a genuine Egyptian alabaster, probably Cairene, but they were actually a diplomatic gift to the papacy in 1844. In England, the nineteenth-century veneration for alabaster windows, emblematized in Alma-Tadema’s painting of a very virginal Orant (1907; fig. 3.27), may have been partially fuelled by the King James bible’s mistranslation of a key passage from the Vulgate *Isaiah*, whose reference to


112 “Programma dell’opera sulla spedizione pontifica in Egitto da compilarsi dagli officiali della Marina e del Genio Militare appartenuti alla stessa spedizione,” (1841); Camillo Ravioli, *La Spedizione Pontificia in Egitto* (Rome: Reverenda Camera Apostolica, 1844). Richard Wittman kindly referred me to these documents.

“Marble” is chemically designated a metamorphosed carbonatic limestone recrystallized by heat or pressure, commonly composed of calcite or dolomite. In modern usage, “alabaster” designates a crystallized gypsum (hydrated calcium sulphate), while the alabastrites mentioned by Theophrastus (De Lap. 1.6) and Pliny (*NH* 36.63, 157) is a true marble, but probably compact stalagmitic calcium carbonate (onyx). This is mostly, but not only, of Egyptian provenance: Alfred Lucas, *Ancient Egyptian Materials and Industries*, 3rd ed. (London: Edward Arnold & Co., 1948): 75-77.
“bastions of Jasper” strangely became “windows of agates.”¹¹³ In short, medieval panes were probably mica or gypsum, but thanks to the imprecision of the terms and a much-cherished image of alabaster windows, there was nothing to stop nineteenth-century observers from interpreting the original material as precious Egyptian alabaster.

From another angle, the early medieval desire to use veined and diaphanous stones is attested by their simulation in colored glass (fig. 3.28). In antiquity, marble was certainly imitated in glass, and fragments of glass window-panes with conspicuous fictive veining, dating from the sixth to ninth centuries, have been found at sites as disperse as Jarrow (Northumberland), Müstair (Switzerland), Liège, Farfa (Lazio) and San Vincenzo al Volturno (Molise).¹¹⁴ These panes come in all stripes, but red and green

¹¹³ Isaiah 54:11-12. Jerome’s version: “Ecce ego sternam per ordinem lapides tuos et fundabo te in sapphyris et ponam iaspidem propugnacula tua et portas tuas in lapides sculptos et omnes terminos tuos in lapides desiderabiles”; King James version: “Behold I will lay thy stones with fair colours, and lay thy foundations with sapphires. And I will make thy windows of agates, and thy gates of carbuncles, and all thy borders of pleasant stones.” Correct translation: “Behold I will lay your stones in order and I will build your foundations in sapphires and I will make your bastions of jasper and your gates in carved stones and all your borders in desirable stones.” The original Hebrew word (“iaspis” in Jerome) is Kadchod or Kadkod, which signifies a reddish stone. The word used for the panes is shimshotayich, the feminine plural of shimsha, which is probably cognate with Shemesh (“Sun”). In short, this was a reddish, translucent stone the color of the Sun. A similar but partial explanation is given in George F. Kunz, The Curious Lore of Precious Stones (Philadelphia/London: J. B. Lippincott Co., 1913): 305.


are preponderant. Several scholars who have observed this “veining” have considered it a botched attempting to produce colored glass.\textsuperscript{115} Were this true, of course, one would be compelled to enquire why glassmakers, from one end of Europe to another, installed these “failures” – which so consistently resemble marbling – in such prominent locations.

The difficulty we might now experience in matching these simulations to any particular materials is that the exact appearance of the original minerals (phengite, jasper, alabaster, and the other miscellaneous stones and jewels mentioned in the Bible) were unknown to the Middle Ages, and their identities always confused. When


medieval craftsmen did look to material remains, it is more than likely that they took inspiration from the antique agate and myrrhine cups that were desired for chalices in the most prestigious church treasuries (fig. 3.29). Pliny’s description of a myrrhine cup and its physical constitution is, in fact, as stirring as any ekphrasis of marble revetment:

The substance is thought to be a liquid that is solidified underground by heat. [...] The vessels shine, but without intensity; indeed, it would be truer to say that they glisten rather than shine. Their value lies in their varied colors: the veins as they swirl repeatedly vary from purple to white or a mixture of the two, the purple becoming fiery or the milk-white becoming red, as though the new color were passing through the vein. Some people particularly appreciate the edges of a piece, where colors may be reflected such as we observe in the inner part of a rainbow.\(^{116}\)

Myrrhine vases had already been feigned in glass in antiquity, and the practice was eventually revived in the “Chalcedony glass” of mid-Quattrocento Venetian glass blowers.\(^{117}\) The aforementioned Lycurgus Cup itself almost certainly imitates the effects of vessels carved from huge, single agates like the famous “Rubens Cup” (c. 400 AD), now in the Walters Museum, Baltimore.\(^{118}\) Moreover,

\(^{116}\) *HN* 37.8.21-22: “Umorem sub terra putant calore densari... splendor est iis sine viribus nitorque verius quam splendor. Sed in pretio varietas colorum subinde circumagentibus se maculis in purpuram candoremque et tertium ex utroque, ignescente veluti per transitum coloris purpura aut rubescante lacteo. Sunt qui maxime in iis laudent extremitates et quosdam colorum repercussus, quales in caelesti arcu spectantur imi.”


\(^{118}\) Marvin C. Ross, “The Rubens Vase, Its History and Date,” *Journal of the Walters Art Gallery* 6 (1943): 9-35. The Lycurgus cup’s imitation of agate vessels does not seem hitherto to have been noted. Relevantly, until the late 19\(^{th}\) century it was widely believed that both the Lycurgus cup and the equally famous Portland Vase were carved agates.
frequently medieval observers could not tell the difference between the original and its simulation. The most egregious case of this sort is the huge dish venerated in San Lorenzo, Genoa as the “Sacro Catino,” and renowned as “made of a single emerald” when it is in reality green glass.\footnote{Malcolm Letts, \textit{Pero Tafur, Travels and Adventures 1435-1439} (Routledge, 1926): 28, 229. It was said to come from Jerusalem but was actually among the spoils of Caesarea in 1101. When it was returned to Genoa from Paris in 1815, it broke on the way and the fragments were reset in gold filigree: Daniele Calcagno, “Il Sacro Catino specchio dell’identità genovese,” \textit{Xenia Antiqua} 10 (2001): 43-112.}

The desire for gem-like windows possibly underwrote the fenestration in the refectory of the Benedictine abbey at San Vincenzo al Volturno (eighth century), where red-and-green-streaked (agate-type?) panes adorned a room liberally painted in imitation of marble. Pride of place was given to a roundel of translucent and veined, royal blue glass situated near the pulpit, itself painted with disks and marbled veins. While all of this helped attract “the wandering eye and the attention of the monk to… the words of the reader,”\footnote{Richard Hodges and others, “The Refectory” in Richard Hodges, ed., \textit{San Vincenzo al Volturno 2: The 1980-86 Excavations, Part II. Archaeological Monographs of the British School at Rome}, 9 (London: The British School at Rome, 1995), 72.} the material concert also arguably evoked the idea that the reader pronounced the word of God from something like his His sapphire throne.\footnote{“Vitrum sapphireum,” blue panes made by smelting Roman perfume bottles or mosaic tesserae, were a desired commodity until at least Suger’s time. Many of the window quarries found in early medieval layers at the Abbey of Farfa, forty kilometres north-east of Rome in the Sabina, were blue: Martine Newby, “Medieval Glass from Farfa,” in \textit{Annales du 10\textsuperscript{e} Congrès de l’Association Internationale pour l’Histoire du Verre, Madrid-Segovie, 1985} (Amsterdam: Association Internationale pour l’Histoire du Verre, 1987), 262.}

Cloudy alabasters.
Translucent alabasters with vibrant veining would have been appealing for windows for other reasons. Translucency, as opposed to transparency, allowed the stones’ overlapping inner layers to suggest continually shifting patterns, and this murky figuration recalled cloud. The earliest text I know to express this allusion is a contract of 1364 for the tomb of Dante’s son in Treviso, which specifies that the sarcophagus panels were to be “of cloudy alabaster.” The epitaph tellingly announces that, although he is entombed in his body, “his brilliant soul shines in its celestial ark.”

In Christian usage, the smoky image of alabaster particularly recommended its use for sacral windowpanes, since clouds had always escorted the theophany in Scripture. Cloud was not only the carriage of divinity, but its veil, the sunscreen of His blinding brilliance and hence the truest testament to His presence, the Shekinah.

In the Old Testament, divine cloud had entered the Ark in the desert and the Temple of Solomon at its consecration, and had appeared to Moses on Mount Ararat. In the New Testament, cloud indicated the presence of the entire Trinity, for “The Holy Ghost is sent in two ways, visibly and invisibly… first, He appeared in the form of a bright cloud above Christ transfigured.” Cloud thus readily signified the eventual resurrection...
when, on the Last Day, “they will see the Son of man coming on the clouds of heaven with power and glory.”124 This is, in fact, how Christ was depicted in numerous apse mosaics and how ekphrasists reported the meaning of His apparition.125

But the perception of clouds in alabaster, or ether in foggy selenite, transcended visual metaphor alone, because alabaster implicitly shared a common physical nature with cloud. Pliny, following Aristotle, had written that clouds were formed from terrestrial moisture (aqueous or smoky) that had risen to altitudes or air that condensed into moisture. As we have seen, Aristotle also originated the belief, again taken up by Pliny, that marble was in itself a solidification of the earth’s exhalations.126 If both were true, then cloudy alabaster was what it seemed. Pliny, in fact, makes this observation of specular stone in the most unambiguous form when he writes that it is “a liquid which, like rock crystal, has been frozen and petrified by an exhalation in the earth.”127 Still


125 “The space in the air supports a cloud of light and in the midst of this bears Jesus, made more brilliant than the sun, as though generated like another light from His Father’s light, which as though with a cloud is joined to the nature of man. For a cloud it is written, and darkness were about Him, and the light produces this [cloud] through the transformation of the higher nature to the lower, because of this union which surpasses all understanding, and is of unspeakable nature”: Mesarites’ ekphrasis (1198/1203) on the mosaic of the Transfiguration in the Apostoleion: Downey, “Nikolaos Mesarites,” 872.

126 According to Aristotle (Mete. 3.6.378 a 18ff.) stones are produced by the “dry” or “smokey exhalation,” metals by the “moist” or “vaporous exhalation.” Aristotle holds that clouds are generally moist exhalations, but dry ones produce dark thunder-clouds that produce lightning and condense to form stones (by which he means meteorites). Pliny remarks “it is certain the earth exhalates a damp mist and at other times a smoky one due to vapor, and that clouds are formed out of moisture rising to a height or air condensed into moisture” (“umidam a terra, alias vero propter vaporem fumidam exhalari caliginem certum est, nubesque e liquore egresso in sublime aut ex aere coacto in liquorem gigni”: HN, 2.42); seconded by Clement of Alexandria, Stromateis 2.20.115.3. The vapors departing the rocky earth were on view to Pliny at Pozzuoli (HN 2.95.207-208), and to the ancients throughout the Mediterranean.

127 “Umorem hunc terrae quadam anima crystalli modo glaciari et in lapidem concrescere manifesto apparat” (HN 36.45.161). Significantly, this passage immediately precedes Pliny’s section on Phengites and the description of Sejanus’ Temple of Fortune.
others would have believed specular stone to be solidified ether, or frozen lightning, and the tenth-century Greek lexicon, the *Souda*, makes the converse argument by explaining that Phengite owes its translucency to the penetration of earth by air and water.\textsuperscript{128} Similar arguments were made about pearl, which appears as a symbol of the Logos from the second century to the ninth. Pearl too was regarded as a concrescence of light, because the oyster was believed to be impregnated when either moisture or lightning penetrated it.\textsuperscript{129} Such notions were not just the arcana of contemporary natural science, and the evidence of the materials themselves was readily visible to artists and patrons; it was a common mechanism of early science that visual similitude often led to physical association. Thus, if the name “selenite” originated in the poetic perception that its wan luminescence evoked the distant face of the moon, this appearance eventually led to the claim that it, too, actually grew and shrank with the moon’s monthly cycles. Moreover, whatever theory one espoused about their

\textsuperscript{128} Aristotle’s own commentators had considerable difficulty understanding his doctrine of the “dry exhalation.” Alexander of Aphrodisias (appointed to his chair of philosophy between 198 and 209 AD) and Olympiodorus (495/505-after 565 AD) thought that “fossiles” were actually composed out of the dry exhalation when it caught fire. In other words, they believed that the dry exhalation was the material not the efficient cause of rocks: Michael Hayduck, ed., *Alexander of Aphrodisias. In Aristotelis Meteorologicorum Libros Commentaria* (Berlin: Georg Reimer, 1899), 177.15-18; Wilhelm Stüve, ed., *Olympiodorus. In Aristotelis Meteora Commentaria* (Berlin: Georg Reimer, 1900), 269.4; Eichholz, *Theophrastus*: 42-44. So for them, alabaster and porphyry could be materialized flame in different stages of that materialization, or with different admixtures, rather than the products of combustion. Basil of Ceasarea also argued that if Zeus could hurl his thunderbolts into Tartarus, then God could surely bury little pieces of the sky’s air or water, frozen by celestial fire, in the dark recesses of the earth (*Third Homily on the Hexaemeron*, 61b).

generation, because cloudy window-panes seemed heavenly materials that originated in the depths of the earth, they became especially poignant interfaces between the terrestrial and the other-worldly, substance and vapor, earthly sight and imperceptible heaven.

When these semi-opaque, stony panes were inserted into revetted walls, below or adjacent to mosaics, by intention or byproduct the entire wall seemed to yield an innate radiance, accentuating the visionary qualities of the whole construct. Observers were, in fact, entranced by the way, “a ray of sun flashing upon a wall and trembling with the movement of the moisture which the beam has taken up in mid-air [is] checked by the hard surface [and sets] up a strange quivering.”

The eventual descendent of all these forerunners was the Gothic interior, in which the walls were eroded, and dull masonry eradicated to make way for vast expanses of stained-glass that made the entire surface into a wall of glowing gems.

Appendix A

The so-called Mausoleum of Galla Placidia and the Catacombs of Domitilla

The window’s potential to materialize of light was consummated in the famous lunette of the south chapel of Galla Placidia (c. 454), directly opposite the entrance to the mausoleum (fig. 3.30). This lunette shows St. Lawrence rushing to martyrdom upon a blazing gridiron, beyond which stands an open bookcase. All commentators insist on

\[130\] Gregory Nazianzenus *Orat.* 21.31.

\[131\] Gage, “Gothic Glass,” 36-57.
seeing three images in the lunette, when in fact it contains four. The fourth protagonist is the alabaster window that intervenes between St. Lawrence and the bookcase and looms over the gridiron.\textsuperscript{132}

Unhappily, the mausoleum’s highly suggestive panes were not installed until 1911, and were offcuts from the tomb of Umberto I in the Pantheon (3.31).\textsuperscript{133} Although it is now impossible to speak with any finality about the original material, the reaction of the flanking apostles demands some figuration from the filter, unless we are to believe that the saints applauded daylight itself through clear glass. Alabaster, selenite, or colored glass are all attractive options, unless the void contained glazing bars in the shape of the cross, painted lambs or similar. In fact, we find support for the idea of a material field in a contemporary and unpublished fresco, a lunette within an arcosolium in the Catacomb of Domitilla in Rome (fig. 3.32).

This lunette is largely occupied by a purple field, framed like a window, to either side of which stand Peter and Paul, the saints who normally flank the \textit{Etimasia}. So important is the central, purple field that the paired apostles are confined to narrow spandrels. The purple paint area is empty, and the suspicion that it originally represented, for example, a \textit{vexillum} emblazoned with a gilded cross in a more fugitive pigment is denied by the presence of the surviving gold Chi-Rho above it. The panel

\textsuperscript{132} For example, according to Kitzinger an “interplay of surface-denying and surface-accepting elements pervades the whole” and “a window in the centre of the panel interferes with a unified illusion of depth.” This judgement is all the more puzzling as he perceptively deems the entire lunette “a sort of rebus spelling out [the saint’s] role of martyr both in the sense of witness and victim:” Ernst Kitzinger, \textit{Byzantine Art in the Making: Main Lines of Stylistic Development in Mediterranean Art, 3rd-7th century} (London: Faber, 1977): 54-55. The figure is identified as St. Vincent of Saragossa in Gillian Mackie, “New Light on the So-Called Saint Lawrence Panel at the Mausoleum of Galla Placidia, Ravenna,” \textit{Gesta} 29, no. 1 (1990): 54-60.

was always empty, and here I want to propose that it articulates a window onto a void. The scheme is a “negative” of the clerestories of Galla Placidia and San Zeno, and all these structures share an expressly funereal function. It is to be expected, therefore, that any window symbolism would point to the passage from this world into the next as well as the ingress of the divine into our realm.\footnote{For the “door of death” motif: Elizabeth Hazleton Haight, \textit{The Symbolism of the House Door in Classical Poetry} (New York: Longmans Green, 1950); Jan Bialostocki, “The Door of Death. The Survival of a Classical Motif in Sepulchral Art,” \textit{Jahrbuch der Hamburger Kunstsammlungen} 18 (1973): 7-32; Britt Haarløv, \textit{The Half-Open Door: A Common Symbolic Motif within Roman Sepulchral Sculpture} (Odense: Odense University Press, 1977). See the fascinating painted examples in the Hypogeum of Dino Compagni (4\textsuperscript{th} century): Daniela Goffredo, “Le cosidette ‘scene di ingresso’ nell’arte funeraria cristiana,” \textit{Rivista di Archeologia Cristiana} 74, no. 1 (1998): 197-236.}

The more integral and iconic intromission of the alabaster window into the St. Lawrence lunette in the Mausoleum of Galla Placidia, which is a scene of martyrdom, is therefore all the more important (\textit{fig. 3.30}). As most commentators agree, the scene depicts the saint rushing in from stage right to martyrdom on the centrally placed implement of his demise, the gridiron, whilst at stage left are labeled the four Gospels of the credo for which he sacrifices himself. All of this is, of course, happening on the back wall of a chapel whose overarching vault is mosaiced to represent the sphere of fixed stars. This axis, from tomb, to resurrection \textit{in astra} subtends the lunette composition wherein two kinds of light are counterpoised, one on top of the other: the visible tongues of fire below the grate and the brilliant void of the window embrasure.\footnote{Statius makes this sort of play in his description of the Baths of Etruscus, where the brilliance of the marbles puts to shame that of the fire (see Appendix 2.7). It should also be noted that the juxtaposition of flame and medium represented in the lunette might also have been experienced in the mausoleum, i.e. daylight entering through the window, in contrast to the internal lamp-light. Better still, the inscription on the triumphal arch of S. Lorenzo fuori le Mura (570-590 AD): “Oh Levite [= deacon], once you endured martyrdom in flames. / Justly, in your temples, the holy light returns” (MARTYRIUM FLAMMIS OLIM LEVVITA SVBISTI / IVRE TVIS TEMPLIS LVX BENERANDA REDIT).} The
mosaicist has, in fact, taken great care to “lock” the pair together, so that the grate becomes a cubist shadow cast by the window, just as the doors swing open from the bookcase.

The glowing pane, therefore, “shutting out and making manifest” could intimate the proximity of God and be the escape-hatch for the martyr towards blissful union with that spiritual light which outshone blazing fires on earth.\textsuperscript{136} The yellow marble revetment of the mausoleum’s lower walls is, however, original, so the light of salvation may once have suffused the entire structure.\textsuperscript{137} In the catacomb of Domitilla, no such artifice was possible because, of course, catacombs are subterranean and God as cloud or celestial window is exchanged for God as dark void. There was a strong current of Christian metaphysics that accommodated such a reading, eventually personified in the writings of the late fifth-century Pseudo-Dionysius, for the light of the distant heavens is paradoxically also darkness, the darkness which is the “inaccessible light” of God.\textsuperscript{138}

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\textsuperscript{138} “The Lord has set the sun in the heavens, but has said that he would dwell in thick darkness” (1 Kings 8:12); Pseudo-Dionysius, Epistle, V, PG 3, 1073. The deep-blue backgrounds of mosaics in Rome, Ravenna, Milan, Sinai and Thessaloniki also projected the ideal and supernatural magnificence of divine light.
Chapter 3: Into the Middle Ages

Appendix 3

1) Prudentius describes the ideal church, c. 400

nullum illic structile saxum,
sed cava per solidum multoque forata dolatu
gemma relucenti limen complectitur arcu,
vestibulumque lapis penetrabile concipit unus.

[Faith and Concord set out the walls, all junctions are
right-angles. On each of four façades, there are three
entrances.]

No building-stone is there, but a single gem, a block
through which much hewing has pierced a passage,
frames the doorway with a shining arch, and a single
stone forms the entrance-court.

And more, the same number [twelve, representing the
apostles] of gems, set singly in the fabric of the walls,
sparkle conspicuously, and out of their clear depths the
light from on high pours living, breathing colors.

A great chrysolite, speckled with natural gold, had
partnered with it on one side a sapphire, on the other a
beryl, and the luster between them gave varying tones to
the beauties it parted. Here a dull chalcedony is flooded
with color from the light of its neighbor jacinth; for as it
chanced that stone with the dark depths imprisoned within
it was shining near by with its pellucid flash of crimson.

The amethyst's blue tinges the sardonyx, jasper and fair
topaz the sardius set beside them.

Amid these beauties are emeralds like grassy meadows in
the spring, whose green light rolls out ever-changing
waves.

You too, gleaming chrysoprase, have a conspicuous place
in the structure, your star is added to the glittering stones.
The crane was creaking with the weight on its chains as it
whirled the vast gems up to the heights.

An inner chamber, too, is constructed, which rests on
seven pillars cut from a glassy rock of ice-like crystal and
topped with a white stone cut cone-wise and curved on the
lower part into the likeness of a shell, a great pearl...

hic lapis est de quinque locis dans quinque colores Aethiops, Phrygius, Parius, Poenus, Lacedaemon, purureus, viridis, maculosus, eburnus et albus. postes chrysolithi fulvus diffulgurat ardor; myrrhina, sardonyches, amethystus Hiberus, iaspis Indus, Chalcidius, Scythicus, beryllus, achates attollunt duplices argenti cardine valvas, per quas inclusi lucem vomit umbra smaragdi; limina crassus onyx crustat propterque hyacinthi caerula concordem iaciunt in stagna colorem. exterior non compta silex, sed prominet alte asper ad adsiduo lympharum verbere pumex.

Here is stone from five regions, giving five colors Ethiopian, Phrygian, Parian, Punic and Spartan purple, green, mottled, ivory and white. The yellow glow of topaz flashes through the doorpost; porcelain, sardonyx, Caucasian amethyst, Indian jasper, Chalcidian and Scythian stones, beryl and agate, form the double doors that hang on silver hinges, and through these doors the shadowy recess beyond pours out the sheen of the emeralds that are within. Onyx thickly encrusts the threshold, and close by the blue color of amethyst casts a harmonious hue upon the lagoon. Outside the stone is not dressed, but towering walls of rock that has been roughened by the constant lashing of the waters.

3) The Baths of the Castle of Pontius Leontius, c. 460/466 but published c. 469, (Sid. Apoll. Carm. 22.136-149; Loeb ed. trans. W. B. Anderson)

ipsa autem quantis, quibus aut sunt fulta columnis! cedat puniceo pretiosus livor in antro Synnados, et Nomadum qui portat eburnea saxa collis et herbosis quae vernant marmora vernis; candsentem iam nolo Paron, iam nolo Caryston; vilior est rubro quae pendet purpura saxo. “Et ne posteritas dubitet quis conditor extet, fixus in introitu lapis est; hic nomina signat auctorum; sed propter aqua, et vestigia pressa quae rapit et fusum detergit gurgit caenum. sectilibus paries tabulis crustatus ad aurea tecta venit, fulvo nimos abscendenda metallo; nam locuples fortuna domus non passa latere divitias prodit, cum sic sua culmina celat.

But the columns that support the baths, of what manner and size are they? Before them must bow the costly dark hue in the purple quarry of Synnada and the Numidian hill that bears stones like ivory and the marble that burgeons with grass-like veins; henceforth I spurn gleaming Paros and Carystos; poorer now seems the purple suspended in the blushing rock. Lest posterity should be uncertain whom the building boasts as its founder, a stone is set in the ground at the entrance with the names of the founders clearly inscribed on it; and there is water near at hand which clears away all footprints and wipes off all mud with its flooding stream. The house-wall is faced with slabs of cut marble up to the gilded ceiling, which is right fitly concealed by the yellow metal, for the rich prosperity of the house, brooking no secrecy, reveals its wealth by hiding the roof in this way.
4) The Baths of Sidonius Apollinaris, c. 460/466, published c. 469, (Sid. Apoll. ad Domitium, Ep. 2.2.5,7,8; Loeb ed. trans. W. B. Anderson)

Interior parietum facies solo levigati caementi candore contenta est.

[…]

Iam si marmora inquiras, non illic quidem Paros Carystos Proconnesos, Phryges Numidiae Spartiatae ripuum variarum posuere crustas, neque per scopulos Aethiopicos et abrupta purpurae genuino fucata conchylio sparsum mihi saxa fururem mentiuntur. Sed etsi nullo peregrinarum cautium rigore ditamur, habent tamen tuguria seu mapalia mea civicum frigus.

[…]

Huc elutis e calore venientibus triplex medii pariétis aditus per arcuata intervalla reseratur. Nec pilae sunt mediae sed columnae, quas architecti peritiores aedificiorum purpuras nuncupavere.


While Botrys was yet arranging the feast for Lyaios, the king of magnificent bounty displayed to Bacchus the artist’s hand in the stonework of his hall, from which poured a shining brightness of many colors and shapes like the sun and his reflecting moon. The walls were white with solid silver. There was the lychnite, which takes its name from light, turning its glistening gleams in the faces of men. The place was also decorated with the glowing ruby stone, and showed wine-colored amethyst set beside sapphire. The pale agate threw off its burnished sheen, and the snakestone sparkled in speckled shapes of scales; the Assyrian emerald discharged its greeny flash. Stretched over a regiment of pillars along the hall the gilded timbers of the roof showed a reddish glow in their opulent roofs. The floor shone with the intricate patterns of a tessellated pavement of minerals; and the huge door with a baulk of wood delicately carved looked like ivory freshly cut.
Chapter 4
Hagia Sophia and Byzantium

By the fifth century, marbles adorned the churches of the fractured western world only where they could be scavenged, but in the eastern empire a few quarries continued to function, and an imperial treasury ensured marble’s copious use long after the western empire had fallen. Virtually no church incrustations in the west have survived in any condition to warrant the poetic transports that they first inspired. Churches built in Byzantium, or by Byzantine workmen beyond its borders, have fared far better though the remains are still just a fraction of the original output.¹

Remains

From the moment Constantinople became new imperial capital in 324, marbles were lavished on public buildings, palaces, and churches with no less zeal than they had been in old Rome. Of Constantinople’s various palaces and civic buildings next to nothing has survived the depredations of the Latins, Ottomans, and even the Byzantines themselves. Of her churches, only about thirty have come down to us from an estimated five hundred. Of these, three retain largely intact marble revetment: Hagia Sophia (532-537), the Theotokos Kyriotissa Akataleptos (Kalenderhane Camii, c. 1200) and the Chora (Kariye

Camii, c. 1316-1321). Scantier remains can be found in the church of St. John Stoudios (454/463), the Pantokrator church (Zeyrek Camii, 1118-1136) and the Parekklesion of the Theotokos Pammakaristos (Fethiye Camii, c. 1310-14).

Outside the capital, one may count the intact apse of the Euphrasius Basilica at Poreč in Istria (530/550),

that of St. Catherine’s below Mount Sinai (548/565), the extensive revetments of Hagios Demetrios in Thessaloniki (c. 500/c. 620) – largely destroyed in 1917 but known from survey drawings and old photographs

– the near-intact ones in the Nea Moni on Chios (c. 1042-1055) and in Hosios Loukas, near Athens (1011/1048),

the meager remains in the Church


of the Dormition at Daphni (1081/1111), and the opus sectile revetment in the presbytery of the Theotokos Chrysokephalos in Trebizond (1214/1235).

In addition, a series of buildings survive which are not strictly Byzantine, but employ the same material vocabulary. They include S. Vitale in Ravenna (532/3-548), whose cladding has been largely lost but can be restored with some confidence (fig. 4.1); S. Marco in Venice (c. 1084 – c. 1260), which emulated Constantinopolitan churches and was possibly reveted by Byzantine craftsmen; Monreale Cathedral (1172-6) and the Cappella Palatina (c. 1140-43), in and around Palermo, which also followed Byzantine-Arabic models; and even the Dome of the Rock (692-702) in Jerusalem, the Great Mosque at Damascus (709-

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9 See Chapter 5. The Emperor Leo V (813-820) had supposedly sent “workmen and excellent masters in architecture” to construct the church of San Zaccaria in Venice: Arthur L. Frothingham, “Byzantine Architects in Italy from the Sixth to the Fifteenth Centuries,” American Journal of Archaeology 9 (1894): 36.

715) and the Ka'bah in Mecca (date???).\textsuperscript{11} Indeed Byzantine marbles, and possibly marble-workers, travelled as far as Baghdad and Kiev.\textsuperscript{12} Finally, a great number of marbled floors have survived, too numerous to list, while still others are known from old drawings and photographs.\textsuperscript{13}

**Ekphraseis and Other Texts**

The most important and most influential of all eastern churches was obviously the cathedral of Byzantium, Hagia Sophia (figs. 4.2-6).\textsuperscript{14} This edifice stretched contemporary technology beyond all known limits, setting an


\textbf{Ibn Jubayr}, who visited Mecca in 1182, praised coloured marble panels within the Ka’bah and was intrigued by quarter-cut white panels (reputedly from the Dome of the Rock) “on which Great and Glorious God has fashioned, at its first creation, remarkable designs”: *Ibn Jubayr, Travels*, 86ff., 199.

\textsuperscript{12} C.1200 marble was imported from Constantinople to decorate churches in Kiev, Chernigov and Timutorkan: Janet L. Martin, *Medieval Russia 980-1584*, Cambridge 1995, 63; Al-Mansur supposedly imported Byzantine marble workers to Baghdad: Cutler, “Gifts and gift exchange,” 255. – what about Kiev floor in *Glory of Byzantium*?

\textsuperscript{13} See bibliography at Chapter 5.

unsurpassable standard for all later Byzantine churches, and was still the man to beat when Bramante set about reconstructing St. Peter’s in 1506, when Sinan raised the Süleymaniye Mosque in 1550-57, and when Borromini built his own temple of wisdom, S. Ivo alla Sapienza in 1643-60. It is not surprising that Hagia Sophia also vaunts the greatest variety of marbles, with a surface area running to several thousand square meters.

Not only this but of all Byzantine buildings it is the sole survivor that can now be measured against descriptions in a spectrum of contemporary texts. Besides the usual chronicles these divide into *ekphraseis*, exegetic hymnody, folkloric descriptions and travelers’ accounts. Since these eyewitness sources are vital to understanding contemporary perceptions of Hagia Sophia, the whole miscellany requires a brief introduction.

The literary compositions known as *ekphraseis* survive in quantity from the sixth to fifteenth centuries and cast a raking light on the aesthetic and symbolic criteria of all artistic production, including architecture and with frequent emphasis on marble work. Three survive for Hagia Sophia: those of


Procopius (c. 554/560), Paul the Silentiary (563) and Michael the Deacon (c. 1140/1150; Appendices 4.3, 4.5-6, 4.12). Despite seminal study by Friedländer\(^\text{17}\) and piercing insights from even Lethaby, much twentieth-century scholarship has been prone to marginalize such ekphraseis as “insufferably long-winded, precious, obscure and imprecise,”\(^\text{18}\) a view which obstinate scholars still cherish despite the fundamental revisions of recent studies.\(^\text{19}\) In large part this myopia is based on three misconceptions: that ekphrasis was a precious and self-indulgent academic genre; that its excessive literary wrapping stifled any would-be objectivity; and that any departure from pure description was gratuitous because ekphraseis exclusively treated artworks. Instead, we now know that such compositions stemmed from a broader species of rhetorical exposition, itself a subsection of panegyric, within which architectural ekphrasis belonged to the specialized evocation of places (topoi).\(^\text{20}\) Periphrasis and periegesis were endemic and empiricist objectification was antithetical, because ekphrasis (literally “a telling in full”) intended “a speech [about persons, places, times, events, and later plants, animals and festivals] which leads one around, bringing the subject

\(^{17}\) Paul Friedländer, Johannes von Gaza und Paulus Silentarius: Kunstbeschreibung Justinianischer Zeit (Leipzig/Berlin: George Teubner, 1912); Lethaby and Swainson, Sancta Sophia.

\(^{18}\) Mango, ix.

\(^{19}\) E.g. the debate of Liz James versus Beat Brenk and Irene Andreescu-Treadgold in Eve Borsook et al., eds., Medieval Mosaics: Light, Color, Materials (Florence: Silvana Editorale, 2000), 179-84. Brenk and Treadgold tend to regard rhetoric as inherently deceitful rather than a regulated structure of persuasion.

matter vividly before the eyes.” In fact, as Ruth Webb clarifies, the modern “distinction between narration (unfolding in time) and description (the problematic verbal representation of an object, constituting a ‘narrative pause’)” was in any case irrelevant to periegetic descriptions whose success depended chiefly on their degree of enargeia (“vividness”).

Not only that but ekphrasis was a technique of evocation that aimed at interpreting, not describing, what the audience saw, compensating for the limitations of vision by emotively addressing the subject of representation. In the words of Nikolaos Mesarites (1198/1203), which are much quoted, the goal was “to look at things with the eyes of sense and to understand them with the eyes of the spirit… to understand ultimate things and to enter the secret places.”

Indeed, some ekphrasists render the verb “to see” by the ambiguous noein, a verb that denotes both physical and intellectual perception. “This form of seeing is not a ‘gaze’ preparatory to forming a judgment (moral, aesthetic, etc.); rather, like the ancient theories of perception, the ray of (in)sight originates with the artifact,

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it is a claim upon one’s depth of apprehension, as a mode of potential participation in the (universal) order of reality.”

Furthermore, ekphrasis enjoyed, *ut pictura poesis*, a performative function parallel to the artwork. Ever since Statius had sung for his supper by praising the marble baths of his host between courses, ekphrases were declaimed within the actual buildings to audiences who had every opportunity to compare the words to the facts. Thus, Paul the Silentiary’s ekphrasis of Hagia Sophia in 563 was pronounced from one of the church galleries to the assembled court and clergy with a grandstand view of the interior. Moreover, not only were ekphrases like Paul’s actually intoned at the church’s consecration, but some were then even inscribed on its walls, so that the building spoke for itself and its words returned to life each time a visitor recited them. At least one such verse inscription,

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27 Although the lemma specifies that the descriptive section of the oration (and the later ekphrasis on the ambo) were given in the patriarchate, this included chambers in the upper storeys of Hagia Sophia: Robin Cormack and Ernest J. W. Hawkins, “The Mosaics of St. Sophia at Instanbul: the Rooms above the Southwest Vestibule and Ramp,” *Dumbarton Oaks Papers* 31 (1977): 199-202. Friedländer also argued that the audience must have been located within the church: Friedländer, *Johannes von Gaza*: 109-10.

engraved in the atrium of Hagios Polyeuktos (524-527), a church whose Solomonic pretensions Hagia Sophia sought to surpass and supplant, introduced the marble manuscript of the church interior (see below). Ekphraseis were, therefore, anything but textual adjuncts after the constructional fact and, relevantly, Henry Maguire has recently demonstrated a more reflexive relationship between image and text, particularly in painting, wherein the composition of epigrams kept pace with new pictorial themes and paintings in turn adapted to circulating texts.29 Indeed, architectural ekphraseis as well as western tituli also enjoyed independent circulation as models for composition.30

Two other sorts of texts supply parameters for the symbolic understanding of the building and its materials, especially at Hagia Sophia: exegetic descriptions and consecration hymns. The former begin as early as Eusebius’ panegyric on the church at Tyre (c. 317), which is carefully crafted to underline parallels with Solomon’s Temple.31 The latter, hymns, are particularly important because, like ekphraseis, they cannot be dismissed as ex post facto poetic fantasies either. They were specifically devised for the consecration, the moment when the supreme religious function of the church was expounded, when the mundane building became an otherworldly apparition, and were


sung to the court and populace, who often signaled their assent in choreographed responses. The most densely allusive such hymn is that for the dedication of the Cathedral at Edessa, commemorating its Justinianic reconstruction under Bishop Amazon (or Amidonius) in c. 543-554 (Appendix 4.2). This hymn has particular bearing on Hagia Sophia because, despite its Syrian origins, the church in question was almost contemporary, built from imperial funds, domed, marbled, mosaicked and probably enjoyed the same dedication – to Holy Wisdom. To some extent this hymn also fills the vacuum left by the loss of the original consecration hymn for Hagia Sophia (537), although this loss is more than compensated by the survival of the elaborate kontakion (canticle, or homiletic anthem) for the second inauguration, on Christmas Day 562, to celebrate the reconstruction of the dome after its partial collapse in 558 (Appendix 4.4).

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33 Palmer and Rodley, “Inauguration,” 125-26 with review of the sources.

34 McVey has also argued for the kontakion’s descent through late-antique Syrian hymnody, via the Edessene hymn (c. 543-554), back to Balai’s madrasha (before c. 431): McVey, “Sogitha,” 329-70.
In the final categories, popular description and folklore, a plethora of pilgrims’ accounts survive. One Turkish history even purports to record the wonderment reaction of Mehmet the Conqueror on the day of Constantinople’s fall (Appendix 4.13). But most important is the ninth-century *Diegesis* (or *Narratio*) of Hagia Sophia, supposedly a chronicle of its construction, which is accurate in several respects but woven with legendary events and peppered with interpretations that, however fantastic to us, record the popular theology the building absorbed, transmitted or instigated.35

**Hagia Sophia: The Conceptual Basis**

The occasion to rebuild Hagia Sophia was the bloody Nika revolt (January 532) that almost toppled Justinian from his throne, and reduced the old church to a smoking ruin. Initially a monument of national reconciliation, the new building became the mascot for a rejuvenated Empire under one law and one religion, headed by a “Great Church” as new Capitolium.36 We may become more sensitive to the all-embracing nature of its construction if we remember that, almost two centuries earlier, Byzantine observers had marveled that the


36 “It is well put to represent the Roman Empire as one body composed, as it is right to say, of many limbs. We are therefore the head of this united body; for this holy head Wisdom is made the consort, to rule with me together in honour of the world entrusted to me, sitting in the same place”: Coripp. *Laud. Just.* 2.195-200 (on Justin II, 565 AD), trans. Averil Cameron, *In laudem Justini Augusti minoris libri IV* (London: Athlone Press, 1976): 53.
Pantheon seemed to encompass an “entire quarter” within a city that itself seemed the “temple of the whole world.”

The superhuman enormity of Hagia Sophia also harbored a superior ambition, to become the earthly abode of Almighty God. Yet skill, not just scale, were needed to make a container for the uncontainable. The authoritative precedents for making a temple worthy of the Lord were found, of course, in the Old Testament: the Mosaic tabernacle in the desert (Exodus 25-31; 35-40) and Solomon’s Temple in Jerusalem (1 Kings 5:15-18:66; 2 Chronicles 1-7:10). These proved venerable prototypes thanks both to their patrons, Moses and Solomon, and because their design had been inspired by God Himself. The Almighty’s instructions for the tabernacle were as meticulous as they were mysterious, while Solomon’s Temple was built to a set of God-given ratios that “wired-in” the divine geometries of the universe. God even attended the Temple’s consecration in a pillar of cloud (1 Kings 8:10-13; 2 Chronicles 5:13-14), an image which the Constantinopolitan populace kept close to heart for, the night before the city’s fall in 1453, they would lament that the Almighty had forsaken them when they saw a thick fog shroud the city and drift out to sea. Though manufactured, Tabernacle and Temple were divinely conceived and predicted that if a church were contrived with the right materials and sufficient sleight of hand, God would always feel at home there.

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37 Amm. Marc. 16.10.14. Cf. Pliny (HN 36.24.101) that if we piled up Rome’s buildings we would see “such a grandeur towering above us as to make us think that some other world were being described, all concentrated in one place.” (“universitate vero acervata et in quendam unum cumulum coiecta non alia maginitudo exurget quam si mundus alius quidam in uno loco narretur”).
The built Hagia Sophia must become a vision of heaven, and the credibility of that vision depended on evading blatant evidence of earthly substance or artifice (or, in rhetorical terms, *reductio ad materiam* or *reductio ad artificium*). As this chapter will argue, to stage the vision the materials must fit together in natural harmony as if by themselves, the architects must seem not to create but only dispose, and the proof of their success was to be a product of literally unspeakable perfection. Alongside these conceits thrived the usual topoi: the church was a paradise and its walls and floor meadows of gems, or it was as much a microcosm as the cosmos was God’s vastly expanded temple. In fact, the most suitable house for the Lord must resemble that which He had made for Himself, namely the Universe in all its rich and acheiropoietic variation (like *dome of rock*?). Yet, while any church was typically a “heaven on earth,” new Temple of Solomon, Mosaic Tabernacle, Microcosm, or all the above, Hagia Sophia and those churches that shared its dedication had particular claim to represent “Wisdom building Herself a house.”

**Hagia Sophia as the Word-Made-Flesh**

The key to understanding Hagia Sophia lays, in fact, in its name, “Holy Wisdom.” The church was not dedicated to a person but to a concept, Divine Wisdom (*Hagia Sophia*), and only thereby to Christ as its incarnation, the Word-made-Flesh (*Logos sesarkomenos*). Byzantine exegesists upheld St. Paul’s

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definition of two wisdoms, beginning with the original Wisdom that had infused the universe, shaping and regulating it, and culminating in the second, personalized Wisdom revealed in Christ. Translated into terms of symbolic representation, the upshot was that any church dedicated to Wisdom automatically enjoyed a range of reference spanning from a creationist microcosm to Christ’s own body.

In the latter case it must be remembered that, in contrast to the Old Testament, the New Testament offered no archetypes of divinely inspired architecture (the Tabernacle, the Temple) but did posit the womb of the Virgin and the body of Christ as terrestrial receptacles for divinity. Indeed, because Christ had spoken of His body as a temple (John 2:19, 21) Paul later insisted that His risen body had actually substituted the Old Temple as “a greater and more perfect tabernacle, not made with hands, that is to say not of this building” (Hebrews 9:11).

Accordingly, because Proverb 9 introduces the idea of a personified “Wisdom having built herself a house,” this architectural image could infer either the structure of the Cosmos or, via Jesus’ self-identification as a “temple,” the Incarnation. For this very reason, in fact, the passage from Proverbs 9 was

39 The earliest writers call it The Great Church (ἡ μεγάλη ἐκκλησία). By the early fifth century it was known as Wisdom (Σοφία), Holy Wisdom (ἡ ἁγία Σοφία) or The Temple of Wisdom (τὸ ἱερὸν τῆς Σοφίας). Later versions extend this to The Great Temple of the Logos the Wisdom of God (τὸ μεγάλον τέμενος τῆς τοῦ Θεοῦ λόγου Σοφίας): Glanville Downey, “The Name of the Church of St. Sophia in Constantinople,” The Harvard Theological Review 52, no. 1 (1959): 37-41. By contrast, the Cathedral of Rome, now called St. John in Lateran, was originally the Basilica Salvatoris.


41 Cf. Mark 14:58; 2 Corinthians 5:1; Colossians 2.11.
declared at both Marian feasts and at the consecration ceremonies (*enkainia*), in which the supreme divinity was invited to indwell His earthly vessel. The internal logic of the construct was sealed by the fact that the Book of Proverbs had been written by Solomon, the builder of the Ur-Temple and himself a byword for wisdom. In the religious imagination, the minute one built a church and dedicated it to Wisdom, all these symbolic factors became automatic expectations, overlapping, fusing and defying segregation. It is this same polysemy that is reflected in the ekphrastic allusions that itemize the architecture and acknowledge the materiality of Hagia Sophia.

In fact, Hagia Sophia was arguably invented to meet this new challenge in architectural representation. Its rupture with the past becomes obvious if one recalls that the Theodosian building it replaced was a five-aisle basilica, quite probably with transepts. Justinian’s reconstruction may not have been the first cathedral to eschew a basilical, cross- or even tau-shaped plan (T), and its structural solutions have traceable precedents, but the resulting ensemble was a breathtaking architectural innovation, *sui generis*. While this novelty is widely

42 Hagia Sophia was begun 326 (Constantine), consecrated 360 (Constantius), rebuilt 404-415 (Theodosius II). S. Paolo fuori le mura, in Rome, was completed in the latter’s reign and may give a clue to Hagia Sophia’s original appearance.

43 The cathedral at Philippi was octagonal, that at Apamea a massive domed tetraconch, that at Bosra a dome over a square plan, the Constantinian cathedral at Antioch an octagon. It has been argued that not only did the figure T determine church plans but that its numerical equivalent, 300, regulated their lengths: Edoardo Gautier di Confiengo, “Nota sul valore di alcune dimensioni dell’architettura paleocristiana,” *Studium Biblicum Franciscanum* 45 (1995): 451-79. Gautier argues that the dimension still figures in Hagia Sophia, although one must note that this occupies the footprint of the Theodosian basilica.

accepted, there is a frequent tendency to regard it as the culmination of a somewhat Darwinian evolution, wherein the historical progression of structural innovation becomes an end in itself rather than the solution to an unthinkable ambition.\textsuperscript{45} **Indeed, the training of the architects, their grounding in Hellenistic mathematics, points instead in the direction of applied mathematics, but a mathematics that was the basis for understanding the cosmos.**

Hagia Sophia is neither purely a centralizing nor longitudinal structure, but fuses both into a unified volume. It is as though a basilica had mated with the Pantheon (it is, indeed, a huge dome that is supported on colonnades).

Moreover, this departure from established typologies must have been especially calculated for when Justinian rebuilt nearby \textbf{Hagia Eirene: 532 (basilica with domes)} and the equally prestigious Apostoleion (c. 536-550), the resting place of the emperors, it assumed a cruciform plan.\textsuperscript{46} It is evident that the figure

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\textsuperscript{45} Most recently, it has been argued that Hagia Sophia was the culmination of a series of domed churches in Isauria (south Turkey: Dag Parazi, Karabel, Alacahisar): Antonio Iacobini, “Un modello architettonico bizantino tra centro e periferia: la chiesa cupolata ad ambulacro,” unpublished lecture, Pontificia Accademia Romana di Archeologia, 27 March 2003.

subtending Justinian’s Hagia Sophia was to be anything but the symbol par excellence of the Passion. Instead Hagia Sophia was to embody Wisdom, as the Word-made-Flesh.

Moreover, the exact nature of Christ’s incarnation was on everybody’s minds when Hagia Sophia was being designed in 531/532. The best part of a century had passed since the Council of Chalcedon (451) had rejected Nestorius’ division of Christ’s human nature from His divinity (the Logos), and embraced Cyril of Alexandria’s counter-position, that Christ’s two natures were fused into a single person. But their ruling had failed to pacify those parties loath to accept that the Trinity had in any way suffered in the flesh. Only in the sixth century did Leontius Byzantius successfully theorize the issue, founding today’s orthodox theology with his *Three Books against the Nestorians and Eutychians* (written 540/543).\(^{47}\) Leontius’ abstruse metaphysics is of particular interest because, in 532, just before the old cathedral went up in smoke and the new one rose from the ashes, he joined the team of orthodox bishops that convened at the adjoining imperial palace to debate Christ’s nature with their Monophysite counterparts.\(^{48}\) Although the meeting proved abortive it is undeniable that Christ’s exact nature was more than normally topical when it came to designing Hagia Sophia – the Holy Wisdom of the Word-made-Flesh – a few months later. Leontius solved the argument by changing the rules of debate. He proposed two

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\(^{48}\) Most probably the “Leontius” present at this meeting: Evans, *Leontius*: 183-85.
methods for understanding the relations between *natures* (or conditions) and *persons*: the essential union of diverse persons in the same nature (the Trinity); and the real union of the person in diverse natures (i.e. the Word-made-Flesh, Christ). He concluded that the Word-made-Flesh was the conjunction of human and divine, partly because Christ unified two natures within Himself (*enypostatic* union) and partly because he mediated between God and humanity (*hypostatic* union). According to Leontius, in fact, Christ was the ultimate *medium* between divine and human, universal and particular, metaphysical and substantial, and through this absolute mediation He derived His full soteriological power to unite mankind with the Logos.

Light

The most apparent expression of Christ as medium in Hagia Sophia was the light that saturated the interior. A shaft of light had inseminated the Virgin and then taken His shape, and a luminous God-filled cloud had filled the old Temple at its inauguration. On the other hand, Federico Bellini has recently argued that Hagia Sophia actually embodies the hypostatic union of Christ’s two natures geometrically, since the two circles (in plan) that describe the arcs of the sanctuary and entrance bay meet as tangents under the epicenter of the grand

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49 Leontius’ neo-Aristotelian ontology traces “all things in being” (*panta ta onta*) to a unifying substantiality (*ousia*). The *ousia* particular to an individual is his or her *physis*, but this still participates in the overall *ousia*. Each individual is characterized by his own accidents of creation (*aupostatoi*: e.g. height, hair-colour, etc.) but these do not affect their *physis*, which is the condition common to all. Leontius defines the difference between individuals as their person, or *hypostasis*. In short, *physis* implies generality and commonality, but *hypostasis* specificity, concrete existence, and personal identity. Spanning these extremes is a medium, which Leontius calls *enypostatos*. The *enypostatos* is a condition (i.e. *physis*) that can only exist in a person if he/she is united to another *physis*: i.e. that person is not “somebody,” but “part of somebody.”
cupola (figs. 4.7-8). Bellini’s Christological Venn-Diagram is intriguing but impossible to verify outside its own terms. The same holds for a purely anthropomorphic approach. For the nave’s turtle-shaped plan conceivably obeys a truncated anthropomorphism and ekphrasists do call the sanctuary the “face of the temple,” humanize the whole pile as the “life-giving Queen” or claim that it “could be pregnant with many thousands of bodies.” However, these mariological allusions both imply the church as breeding God’s children and, conversely, their assimilation to the larger body of Christian fellowship.

To avoid transposing constructs onto construction our only recourse is a synaesthetic approach, which privileges analogy and metaphor over equation or transcription, and collectively considers light symbolism, liturgy, materials, architectural “topography,” the perceived agency (or rather, non-agency) of the architects, and contemporary interpretations of the church. Moreover, the polysemous nature of medieval architectural representation, what Krautheimer called “double-think” or “multi-think,” must also be borne in mind, especially since the ultimate subject is a God that assimilates all to Himself and Whose only incarnation per se had two natures (the subject of prolonged and immense

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50 Bellini, “Cristologia,” 21-40. In In nuce, at p. 36: “la cupola centrale, sferica si compenetra a due semicupole ugualmente sferiche: che potrebbero rappresentare le due nature unite in misura e modo equivalente nella persona del verbo incarnato, cioè la stessa cupola.” Mesarites will later speak of the crossing in the Apostoleion as “binding the other four [arms] to itself and binds them to each other as well, and stands there as a kind of mediator and a reconciler of those which formerly were separated from each other, in this, I believe, imitating the mediator between God and man, who is portrayed in the midst of it [on the dome], Christ, truly the square-cut stone”: Downey, “Nikolaos Mesarites,” 869.


52 Prudentius also calls the church of Eulalia in Merida “motherly” (“atria... alma”: Perist. 3.192). Cf. Maximus Confessor, Mystagogia 4; PG 91, 672 A-C. Cf. Chapter 8 for the continuing symbolism of tabernacle-church as pregnant Madonna.
Wisdom infused the universe and then incarnated Christ. So, if we can think of Hagia Sophia as an elusively divine body we must remember that the body in question belongs to the larger Creation, and that its flesh is as cumulative as the bundles of fruit and flints that assemble human profiles in the paintings of Arcimboldo. The various natural images that ekphrasists, as we shall see, discerned in Hagia Sophia’s marbles are particular images which always defer to a universal archetype or prototype. Hagia Sophia itself proclaims this miscegenation at its main entrance, the “Royal Door,” in a Justinianic inscription describing the cathedral as both Christ the gate and the pasture of the blessed.

Descent: Light and surface

Solomon had asked “But will God indeed dwell on the earth? Behold, the heaven and the heaven of heavens cannot contain Thee; how much less this house that I have builded” (1 Kings 8:27; 2 Chronicles 2:6). The Edessene Hymn also implies that for any temple to house the uncircumscribable divinity is a paradox equal to the Incarnation itself. The kontakion mirrors the idea when it remarks that only because Christ once dwelt in the flesh will God now consent to indwell the temple of Hagia Sophia (Appendix 4.4, strophe 4). Subtending both

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55 It is ambiguous whether the “temple” in question is the church or Christ Himself, so closely are they equated. McVey, “Domed Church,” 96-97.
claims is Eusebius’ seminal exegesis of the Church at Tyre, which described the light-filled church as a “living temple” (empsychos naos) that, thanks to the Pauline conception of Christ as acheiropoietic tabernacle, could be compared to “the spiritual edifice in our souls.” Indeed, the bodies of particularly enlightened humans were also described as vessels of shining wisdom.\(^5\)

It follows that the only real way that Wisdom could be apprehended within the building sentiently, before the “spiritual eyes” began their examination, was through the manifestation and articulation of light.\(^5\) Hagia Sophia was calculated to enhance it. It is designed from the inside out, and from the top down, and all its ponderous engineering is negated by the cliff-like interior and pushed to the exterior where immense masses aggregate to buttress the dome. The interior avoids tectonic expressionism in favor of a buoyant lucidity, beginning with the dome. Byzantine literati said that looking into it was like gazing at the midday sun, or that it seemed to float in the air or dangle from heaven by a golden chain.\(^5\) There are no end of columns in the galleries, but no attempt to line them up with those below so that they also hang in the air (fig. 4.4).\(^5\) This was by no means inappropriate. God had created from On High, and


\(^5\) The equation of light with wisdom is elaborately pursued in the kontakion: Palmer and Rodley, “Inauguration,” 146. Paul the Silentiary’s ekphrasis also exploits the theme of light because it was probably delivered on 6 January, both Epiphany and the Feast of Lights, when Christ’s baptism in the Jordan is commemorated: Macrides and Magdalino, “Architecture,” 63-64. It has even been argued that Hagia Sophia was modelled on Aurelian’s Temple of the Sun (274 AD) in Rome: Andrea Moneti, “La Santa Sofia di Giustiniano e il Tempio del Sole di Aureliano,” *Analecta Romana Instituti Danici* 21 (1993): 153-71.

\(^5\) Paul *Descri. S. Sophiae* 671-672; *Procop. Aed.* 1.1.34, 46.
so older exegetic schools had stressed that the Cosmos, unlike human construction, was built from the top down.⁶⁰

Inside Hagia Sophia the great canopy of light comes to ground as a tetrapsylon inscribed within an aisled box. A worm’s eye view of its original appearance is supplied by Henri Prost’s watercolor from the early 1900s, itself possibly inspired by recently republished ekphrasis (fig. 4.5).⁶¹ On its way earthwards, the massive dome, which originally received far greater natural illumination than it does today, buds into clustered hemi-domes over the trefoil exedra at either end of the nave, all covered in millions of gilt-backed tesserae.⁶² This non-surface in a non-color allowed no place for shadows to gather and virtually concretized the divine light itself.⁶³ Not only was the dome a blazing disk but also, predictably, the church radiance seemed to be generated from within. These elaborate topoi were all the more enticing in Hagia Sophia because Holy Wisdom was synonymous with light. Not only was She the lamp of truth but the first of God’s creations, brighter even than the first light, and She had

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⁵⁹ “one may wonder at the resolve of the man who upon two columns has bravely set thrice two, and has not hesitated to fix their bases over empty air”: Paul Descr. S. Sophiae 392-394; Mango, 81. The ground floor (Thessalian) columns measure 10.36 m in height, the Porphyry 7.3 – 7.62 m, but stand on bases and their intercolumniations are much narrower.

⁶⁰ McVey, “Domed Church,” 99, with references.


⁶² The huge tympana flanking the dome were originally pierced by double-tiered columnar screens. The windows were all significantly reduced probably following serious earthquakes in 869: Mainstone, Hagia Sophia: 97-101.

⁶³ For the associations of gold see the exhaustive Dominic Janes, God and Gold in Late Antiquity (Cambridge: Cambridge University Press, 1998).
later inseminated the Logos in the Virgin (Ecclesiastes 1:3, Luke 15:8; Proverbs 8:22-31; Wisdom 7:24-25). Michael the Deacon presumably alludes to the latter episode when he characterizes Hagia Sophia as “pregnant” and Venantius Fortunatus, who arrived in Gaul from Ravenna in 565, with the city’s Byzantine monuments fresh in mind, would also pronounce that a church in Bordeaux shone “like the womb of the Virgin.”

Traveling down the walls we notice that all internal surfaces of Hagia Sophia are articulated as a skin stretched over the underlying and unexpressed structure. Significantly, the same concerns are evident in the ventricular volumes of two much later monuments that were also imperial commissions and, as such, probably looked back to Hagia Sophia at least in spirit: Hosios Loukas (1011/1048), near Athens, and especially Nea Moni (c. 1042-1055), on Chios (figs. 4.9-10).

In Hagia Sophia, the original dome was also twenty feet lower than the present one, with the result that it continued the curvature of the pendentives in one seamless arc. The same negation of structure can be observed in the way that the huge tympanum windows were set flush with the interior wall-plane, allowing no perceptible reveals; that many of the window transennae (solid

64 “Here you have founded a blessed temple for holy Mary, whence vanquished night has fled since the day never ends. Filled with light, the glittering hall is the image of Mary: she closed the light in her womb and this [church] encloses the day” (“Ecce beata sacrae fundasti templa Mariae, / nox ubi victa fugit semper habendo diem. / Lumine plena micans imitata est aula Mariam: illa utero lucem clausit et ista diem”): Carm. 1.15.55-58, in Marc Reydellet, ed., Venance Fortunat. Poèmes (Tome I, Livres I-IV), 2 vols. (Paris: Les Belles Lettres, 1994), 1: 35-36. In this case, “lux” must refer to Christ.

65 In both cases, as at Hagia Sophia, the external envelope subserves the interior. Both buildings are notable anomalies within the more common middle-byzantine typology of cross-in-square churches. In both cases the master masons were likely dispatched from Constantinople. For the former, Schultz and Barnsley, Monastery of Saint Luke; for the latter, Bouras, Nea Moni.

panels) were of translucent marble; and that the vaults of the upper galleries were covered with dark blue tesserae with few gold tesserae, to make the arcade in front a pure tracery. Moreover, the marble paneling coats the nave walls with no regard to structural expression, like a patchwork quilt. Procopius and Michael the Deacon add that the marbles shone more brightly than the vaults (Appendix 4.3, 4.12) again effacing terrestrial substance in favor of heavenly shimmer.

The same applied to the only exterior that everyday visitors could actually see. Like the Pantheon in Rome, the bulk of Hagia Sophia was largely occluded by adjoining buildings (the Great Palace, Secretariat, Library, and other satellites) and at close quarters, in the large but shallow forecourt, it was therefore not the dome but the west façade that loomed large. While the atrium walls extended the varicolored paneling of the nave (fig. 4.11),\(^6\) the upper register of the west façade was clad with Proconnesian panels, some of which still survive in situ (fig. 4.12).\(^7\) These polished, white panels streaked with grey could again only dissolve the bulk of construction and melt into the lowering sky.

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\(^6\) But what manner of stonework is this that has fastened around the building, striving with its variegated coloring and smoothness against the gold shining because of its smoothness and, because of its diversified bloom having something that surpasses even gold, which is of one color?” (Michael the Deacon, 73-78; Mango and Parker, “Twelfth-Century Description,” 237).

\(^6\) Schneider’s excavations in the 1930s revealed that “die Hinterwände der Portiken waren mit buntfarbigen Marmorplatten verkleidet, wovon geringfügige Reste bei der Untersuchung der Atriumfundamente gleich oben zu Tage kamen. Auch Reste von Zahnsnittleisten, mit denen, wie in der Kirche, die Platten eingefasst waren, fanden sich, sogar noch mit Spuren von Vergoldung”: Alfons M. Schneider, *Die Grabung im Westhof der Sophienkirche zu Istanbul* (Berlin: 1941): 23. The atrium columns were probably Proconnesian as numerous pilgrims mention their whiteness.

Second Nature: Vegetal Marbles and the Meadow

Just as brilliant shimmer could anagogically reflect the original light, contemplation of the created world would lead the mind back to its Creator. In the eyes of the ekphrasists, therefore, the counterpart to the descent of light was a nave dominated by the worldly metaphor of landscape.

Paul the Silentiary “surveyed and scrutinized the various types of marble with the exquisite subtlety of a connoisseur,” enumerating their origins “in a catalogue reminiscent of a visual representation of provinces and cities of the empire bearing tribute to the emperor.” This tendency is more explicit in other ekphraseis, but the inscription on the cathedral’s altar made plain that this tribute was paid to God rather than emperor, and in His own coin (“We your subjects bear to you, Christ, those your things that belong to you…”). The marbles, as argued by Geoffrey Goodwin, “The Reuse of Marble in the Eastern Mediterranean in Medieval Times,” Journal of the Royal Asiatical Society of Great Britain and Ireland 1, no. 1 (1977): 17-18. They most likely disappeared when the buttresses were built, probably in the 9th/10th centuries: Mainstone, Hagia Sophia: 104-05.

71 Agathias 5.9.8; Joseph D. Frendo, ed., Agathias. The Histories (Berlin/New York: de Gruyter, 1975), 144. About ten varieties of marble were used, if we include alabaster (or “onyx”) and porphyry, but the diversity of veining increased the apparent variety of types.


73 Cf. Choricius on St. Stephen at Gaza, “that each homeland of the most famous marbles presented [them] here as gifts” (appendix 4.1); on St. Sergius, Gaza: “let someone enumerate for the cities that pride themselves in the sumptuousness of the marble [they bring forth]: Proconnesus... Lacedaemonia... Caria... All of these places have contributed to the church gifts from [the resource] in which they glory. Thessaly too”: Laud. Marc. I 41-42; Mango, 63-64. Constantine instructs Macarius: “concerning the columns and marbles [for the Holy Sepulcher]... these may be conveyed from every quarter, for it is fitting that the most wondrous place in the world should be adorned according to its worth”: Euseb. Vita Constantini 3.31; Mango, 12.

74 Kedrenos cited in Dagron, Constantinople: 242: τὰ σὰ ἐκ τῶν σῶν σοὶ προσφέρομεν οἱ δούλοι σου Χριστέ...
various marbles were new gifts for a new nativity, whose *poikilia* (“variety,” “colorfulness”) announced the vitality of His multifarious creation.

Indeed, Paul the Silentiary not only eulogizes the marbles’ geographical origin but also reads into them teeming landscapes. He presents a world complete with heavenly vault, a floor like a sea, flower-banked streams, and walls with “wheatfields and sheltering woods, playful flocks of sheep and gnarled olive trees, spreading vines” (Appendix 4.5). His *Weltlandschaft* is a collective image of vital and florescent nature, epitomized in fertile locations, of which the stones are organic indices.

At ground level we wander through a “sacred grove” of columns, “high-crested and blooming” as though “with bright flowers.”

Almost all columns are green, Thessalian marble (*verde antico*). Only those in the corner exedrae are porphyry and, when viewed from the nave entrance, serve to color-code and imperialize the sanctuary, just as they did in the contemporary church of St. Stephen at Gaza. In fact, only in Hagia Sophia’s main apse do pilasters debut and continue the porphyry march around its perimeter. In the body of the church, columns easily doubled for trunks, and green marbles only augmented the affinity. The chiaroscuro veining of Thessalian columns suggested magnolia

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75 Paul Descr. S. Sophiae 549-550: ὑφιλόφους, χαρίεντας, ἕκχοις ἄλεσει […] / ἄλησε διαδάδεις τεθηλότας (ἄλεσε means sacred grove, and thereby holy precinct). The quarrying and shifting of large columns still commanded the respect of many Byzantine writers: Mango, 7, 22 (note 3), 31-32, 60, 61, 68-69.

Once upon a time trees were temples of the deities, and in conformity with primitive ritual simple country places even now dedicate a tree of exceptional height to a god; nor do we pay greater worship to images shining with gold and ivory than to the forests and to the very silences that they contain: Pliny, *Natural History*, XII.2.

76 Choric. Laud. Marc. II 36 (appendix 4.1). it is presumably when the Pantheon was converted to Christian use during the Byzantine occupation (609 AD) the apse acquired a templon of porphyry columns that survived until 1711: Susanna Pasquali, *Il Pantheon: architettura e antiquaria nel Settecento a Roma* (Modena: Franco Cosimo Panini, 1996): 32, 36 (note 33), 41, 48 (note 32), and figs. 16, 17. Cf. the Column of Theodora: “The column is purple, and it clearly declares before one sees the statue that it bears an Empress.” (Procop. Aed. 1.11.9; Loeb ed. trans. H. B. Dewing).
topiary as easily as serpentine slabs offered images of boxwood, turf, or rue (figs. 4.13-4). The sap-colored veining of Carystian, on the other hand, could mimic palm bark, as on a column from Constantinople’s Forum Tauri (fig. 4.15). A pillar of this marble also became the ideal simulacrum for the miraculous elm, outside the Florentine baptistery, with which the coffin of St. Zenobius had collided, causing the startled tree to bloom even in dead winter (fig. 4.16).

In fact, the desire for such symmetries between art and nature had a long pre-history before Hagia Sophia. Pompeian interiors had juxtaposed painted hedges, trees, and whole landscapes with their real counterparts and classical villas and public gardens had inflected landscape by aligning garden trees with portico columns. The ranks of plane trees that spanned Gymnasium courtyards, in file with the surrounding columns, provided an ideal venue for the

Stat. Silv. 2.2.90-91 (Appendix 2.9); Sid. Apoll. Carm. 5.38, 22.139; Ennod. Carm. 2.10.3 (Appendix 2.13); Naser (1047) admires the paving and balustrades of the Haram, Jerusalem “of a flecked green marble that looks like a meadow with flowers in bloom”: Naser, Travels, 24, 34. The Byzantines called serpentine “rue” (περγανόν): Theophanes Continuatus, PG 109, col. 160D, cited in Gnoli, 141. Russian pilgrims also refer to the Thessalian marble column-relics of Peter and Christ in the Apostoleion as “clover-colored”: George P. Majeska, Russian Travelers to Constantinople in the Fourteenth and Fifteenth Centuries (Washington DC: Dumbarton Oaks, 1984): 300-01 (esp. notes 70-79).


In Varro’s aviary at Casinum “right and left [of the central space] there are porticoes, the front column being of stone and the place of the intermediate ones being taken by rows of diminutive trees,” while the outer columns of its tholos were of stone and the fine inner ones of fir (“dextra et sinistra porticus sunt primoribus columnis lapideis, pro mediis arbusulis ordinateae… tholi columnas exteriores lapides et totidem interiores ex abiete tenues” Varro Rust. 3.5.11-12). Cf. Bettina Bergmann, “Art and Nature in the Villa at Oplontis,” in Journal of Roman Archaeology, Supplementary Series Number 47, ed. C. Stein and J. H. Humphrey (Portsmouth RI: 2002), 87-120, esp. 99-100. In Propertius’s description of the Porticus of Pompey, the soaring plane-trees become a “living colonnade”: Ann L. Kuttner, “Culture and History at Pompey’s Museum,” Transactions of the American Philological Association 129 (1999): 347, 356. Prop. 2.32.11-13: “Pompey’s Portico with its shady columns… and the ordo thick on each side with soaring plane-trees” (“umbrosis… Pompeia columnis / porticus… / et platanis creber pariter surgentibus ordo”).
discussions of *ars* and *natura* that took place there (fig. 4.16b). Likewise, villa walls extended into the landscape in the shape of hardy perennials and topiaried evergreens that seemed as immune to seasonal change as marble: “a lovely box-tree with clipped foliage, the likeness of Spartan marble, spreads out its trimmed surface; not even Persian arrows can pierce it.” Even agriculture was regarded as “creating almost a second nature within nature’s world,” and Longus’ lengthy ekphrasis (Second Century AD) of a garden (*paradeisos*), for example, pursues the theme to dwell on its interplay between skill (*techne*) and nature (*physis*) or earth (*ge*), and not just man’s design (between “borders produced by the earth and others by skill”) but even between nursery plants and those that grow wild. The subtle reciprocity between architectonic nature and organic architecture, or the topos of *certamen artis et naturae*, also underlies the Younger Pliny’s famous description (c. 100 AD) of his Tuscan villa. It sat amongst “florid and gemmed meadows,” providing a view that seemed “less real, than some painted landscape.” Closer to the villa, “plane-trees covered with ivy... twining

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80 Jean Delorme, *Gymnasion: étude sur les monuments consacrés à l’éducation en Grèce (des origines à l’Empire Romain)* (Paris: E. De Boccard, 1960): 332-36. Vitruvius also recommends that groves of plane trees be planted between colonnades when planning *xysta* (*De Arch. 5.11.4*), probably in file with the columns.

81 Merobaud. *Carm. 3.5-7*: “intertonsa comas Spartani marmoris instar / porrigit excisum buxus amoenas latas, / quam nec Achaemeniae possent penetrare sagittae”; Frank M. Clover, ed., *Flavius Merobaudes. A Translation and Historical Commentary* (Philadelphia: American Philosophical Society, 1971), 11, 28-29, 61. These fragments belong to a poem (c. 435/446 AD) on a garden in Rome, apparently that of the distinguished senator Anicius Acilius Glabrio Faustus. Merobaudes was court poet to both Valentinian III and his general Flavius Aëtius.


around the trunk and branches, spreading from tree to tree and connecting them
together” were echoed by a vine “trained upon four small pillars of Carystian
marble.”

In a late-antique domus at Ostia, in fact, Carystian transformed a whole
exedra, possibly the stibadium (dining room), into a garden room (figs. 4.17-9).
The wall’s largest fields are “crazy-paved” with Carystian slabs, so irregular that
they have been mistaken for modern restoration. The Carystian off-cuts are
collaged together like a bed of fronds, their strident veining used like giant
hatching, create expressionistic juxtapositions that figure a garden or even a
grotto. The whole room is in any case an exedra off the domus’ central garden,

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85 “prata florida et gemnea… neque enim terras tibi, sed formam aliquam ad eximiam
pulchritudinem pictam videberis cernere […] hedera vestiuntur… truncum et ramos pererrat
vicinasque plantanos transitu suos copulat… vitem quattuor columnellae Carystiae subeunt” (Ep.
5.6.11, 13, 32, 36).

86 Regio V, Insula VII, nos. 1-2. On the Decumanus at Ostia, a late 3rd-/early 4th-century
remodeling of a mid 2nd-century peristyle building, Laird demolishes the traditional identification
as a College of the Augustales, but provisionally calls it only “an anonymous schola”: Margaret L.
Laird, “Reconsidering the So-called ‘Sede degli Augustali’ at Ostia,” Memoirs of the American
Academy at Rome 45 (2000): 41-72. For the traditional view: Beate Bollmann, Römische
Vereinshäuser. Untersuchungen zu den Scholae der römischen Berufs-, Kult- und Augustalen-Kollegien in
Giovanni Becatti, Mosaici e pavimenti marmorei (Rome: Istituto poligrafico dello Stato Libreria dello
Stato, 1961): 221; Maria L. Bruto and Cinzia Vannicola, “Ricostruzione e tipologia delle crustae

87 Pensabene argued that local workmen had cobbled it all together from loose pieces during
evacuations in the 1930s: Patrizio Pensabene, Le vie del marmo: i blocchi di cava di Roma e di Ostia: il
fenomeno del marmo nella Roma antica (Rome: Ministero per i Beni Culturali e Ambientali, 1994):
371-74. However “identical paneling is sandwiched between the corner pilaster and a later wall
in the northwestern corner of the peristyle”: Laird, “Reconsidering,” 70. An analogous evocation
of gardens may govern the reuse of rhomb-lattice marble paving as wall revetment in the so-
called Tomba dei Custodi (5th century?) in the Catacomb of Pratetxatus, where they suggest a view
through a lattice screen: Lucrezia Spera, “Un cubículo monumentale nella catacomba di
paving style” seems to have constituted a local style, from tabernae to the Forum Baths (cf.
Chapter 2).

88 Michelangelo later uses Thessalian (“cipollaccio”) to imitate moss, lining a niche at the
Belvedere “per ornamento di un fiume antico, acciò in questo campo fatto a guisa di scogli
apparisa”: Vasari-Milanesi, 1: 114; James S. Ackerman, The Cortile del Belvedere (Vatican City:
Biblioteca Apostolica Vaticana, 1954): 37, 58, 59, cat. 47. The destroyed niche (c. 1532/34), drawn
onto which it looks through a (vanished) loggia of paired columns and, beside
them, intarsiated door-leaves that emphatically point the room beyond its
perimeter (fig. 4.19). It literally held a mirror up to nature or to borrow a phrase
from Pliny’s description of a marbled chamber in his own villa, “reflects as great
an ornament… as it borrows from it.” 89 Finally, a modern descendant can be
found in the perimeter wall of Mies van der Rohe’s Barcelona Pavilion (1929),
which elides building and nature, crystallizing an architectural seam between the
water from which it draws its polish and the firs from which it absorbs its color
(fig. 4.20). 90

Walls, columns and floors, then, were all capable of projecting vegetal
images and by the era of Christian ekphrasis, the conceits combined to imagine
an entire church as a sacred clearing in a flowering grove:

The light flashes within and so lured
Is the sun to the gilded coffers
That it strays to the yellow metal, whose color it shares.
Marble adorned by varied flickers
Spreads over the ceiling, floor, windows
And below variegated designs,
A flourishing and grassy shell
Swirls its sapphirine stones over the leek-green
glass…
And across the central pasture a stony copse spreads
In widely spaced columns 91

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89 Ep. 5.6.38: “Cubiculum tantum stibadio reddit ornatus, quantum accipit ab illo. A marmore
splendet, valvis in viridia prominet et exit” (“a chamber of lustrous marble, which reflects as
great an ornament to the bench [see above] as it borrows from it” and “whose doors project
and open into the garden”).

90 Wolf Tegethoff, Mies van der Rohe: the Villas and Country Houses (New York
Cambridge MA: Museum of Modern Art; distributed by the MIT Press, 1985): 87; Caroline
Constant, “The Barcelona Pavilion as Landscape Garden: Modernity and the Picturesque,” AA
Files 20 (1990): 48. For a more skeptical view: George Dodds, “Body in Pieces: Desiring the
Such allusions were not meant to halt at superficial similitude, for the enthusiastic perception of flora sustained a spiritual significance as well. The floors were “adorned with pieces of marble colored like flowers, truly like a spring meadow except for the fact that flowers wither and die, and this is a meadow that will never wither but will last forever, preserving in itself an eternal spring.”92 Because heaven was “covered and scented with beds of rich roses,” in the Spanish church of a virgin martyr “the luster of shining marble, foreign and native, lights up the nurturing hall, the worshipful soil tends her remains and holy ashes in its bosom… and sawn stones so variegate the ground that you would think it a rose-colored meadow reddening with varied blooms.”93

These references to flowering and blossoming stones further transcended metaphor by recalling that marble was organic and rooted, a living rock.94 As

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92 Τούς δὲ ναοὶ τοῦ ἁγιώτατον διάπεδον ἄτεχνη έκαστοι λειμαί/νι παρείκασται ποικίλη μαρμάρων ψηφίδι, ὥς δὴ θελεί καθαριζόμενοι, πλὴν παρ’ ὅσον τὰ μὲν ἀνθί κεραίνεται καὶ ἀλλᾶττεται, ὁ δὲ λειμαίνων οὔτος ἄμαραντος καὶ οἰδίς. τηρεῖν ἑφ’ ἑαυτῷ τὸ ἐ’ απ’ ἄδαντον (Philagathos, the 12th-century court homilist of King Roger of Sicily on the pavement of the Cappella Palatina in Palermo); Giuseppe Rossi Taibbi, ed., Omelie per i vangeli domenicali e le feste di tutto l’anno (Palermo: Istituto Siciliano di Studi Bizantini e Neoellenici, 11, 1969), 175. At Montecassino the workmen “vero totius ecclesie pavimentum diversorum lapidum varietate consternerent… in marmoribus omnignem colorum flores pulchra putet diversitate vernare”: Chron. 3.27; Hartmut Hoffmann, ed., Chronica monasterii Casinensis (Hannover: Hahn, 1980), 396.


94 See Chapter 1.
Ovid had said of heartless Anaxerete, she was “harder than the rock that is kept alive by its root.”95 Anyone knows that cut flowers will continue to bloom for days and marbles offered an eternal flowering, as if by divine command and with time out of mind. Indeed, a Byzantine epigram, or mini-ekphrasis, inscribed on the façade of Hagia Sophia’s rival, Hagios Polyeuktos (524-527), announces that within the church,

The facing walls in innumerable paths
Are clothed in marvelous mineral veins of color, like flowery meadows
Which Nature made to flower in the depth of the rock,
And hid their glory, keeping them for the House of God,
To be the gift of Juliana, so that she might produce a work of wonder,
Following in her toil the stainless dictates of her heart.96

Nikolaos Mesarites will speak of the columns “sprouting from the ground” in the Apostoleion (Appendix 4.11). Michael the Deacon, on Hagia Sophia, describes marbles that are “greenish in color, as though they had grown out of the ground just there,”97 and concludes that, overall, marble “paves the floors and has been fixed round the walls, [and] in many respects convicts the flowers of being easily withered, since it is also cut from the mines of the earth,


97 αἱ μὲν τῇ χρόνῳ χλωρίζουσιν ὡς εἰ αὐτοθέν ἔφυσαν ἀπὸ γῆς (II. 110-112; Mango and Parker, “Twelfth-Century Description,” 238).
but preserves its flowery dye even after severance from its own root” (Appendix 4.12). Perhaps Themistius also means Thessalian when he praises Gratian (376 AD), “if he had raised for us columns of Phrygian or Pentelic or Egyptian marbles, we would do well to praise him; but since he has erected for us these living and animate columns that rest on the earth but rise so high, should we not praise him even more?” In Byzantine eyes, these eternally flowering stones outlawed the sterility of manmade construction to create a divine work, a living, blossoming church of incarnate stones, the *empsychos naos*. This is, in fact, exactly how Procopius, echoed by later observers, explains the marble meadows of Hagia Sophia:

whenever anyone enters this church to pray, he understands that it is not by any human power or skill, but by the influence of God, that this work has been so finely turned. And so his mind is lifted up toward God and exalted, feeling that He cannot be far away, but must especially love to dwell in this place which He has chosen (Appendix 4.3)

**Book-matched Revetment: Innate Order**

Yet the sprawling meadows must be manicured into gardens, and the riot of veining subdued and reconciled to architecture. The means to do so was the technique now called “book-matching,” whereby the quarried block was sawn parallel to its surface, and the unfolded panels set edge to edge like the facing leaves of an opened book. The block could be unfolded once to produce bilateral symmetry (“twinning,” fig. 4.21), or twice to produce quadrilateral symmetry

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(“quartering,” i.e. mirror-like in two directions; fig. 4.22). Multiple pairs of single unfoldings resulted in a continuous, bellows or accordion pattern (fig. 4.23).100

Book-matching became a trademark of Byzantine architecture, one that workshops exported along with the raw materials to both the Latin West in the sixth century, and to the Islamic East from the sixth to eighth centuries.101 In Byzantium itself, it dominated reveting right up until its final eclipse. Even once resources had dwindled masons resorted to sawing columns lengthwise to achieve the effect, a practice still exploited in 1920s’ Jaffa as we can see from the only photograph ever taken of spoliation in action (fig. 4.24).102 The narrower slabs resulted in the more cardiographic patterns that reanimate the naos revetment of the Chora Church (c. 1316-1321; fig. 4.25).103 However, book-matching was not, as so often thought and stated, a Byzantine innovation. Twinned and quartered marbling is simulated in first-century Pompeian dados,104 a second- or third-century mausoleum in Boite-sur-Suippe,105 the third-

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century Torah shrine in the synagogue at Dura Europus (fig. 4.26), in fifth-century Egypt and Ephesus (fig. 4.27), on temple façades in the fourth-century Piazza Armerina mosaics (fig. 4.28), and Tunisian mosaic floors. A real reveted examples survive in the second-century villa at Silin in Libya and in a triclinium at Ephesus (fig. 4.29).

In Hagia Sophia, book-matching is used in two opposing but complementary manners. In the nave twinned slabs form isolated panels framed by beaded moldings (4.21), while in the aisles, galleries and (originally) west façade, twinned panels wrap around all the wall surfaces without break, accordion-style (fig. 4.23). Marbles with pronounced veining were vital to the

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effect and great care was taken that the veins always ran true. Furthermore, the slabs must fit together as tightly as possible, for close seams remained as important in ashlar and revetment as they had been in the classical era. Ekphrasists missed few opportunities to commend the tight fit (harmonia) of the marbles and the image of unicity that this sponsored and the criterion of ex uno lapide (ἐξ ἕνος λίθου) continued to thrive in Byzantium. Eusebius says of Constantine’s Church of the Holy Sepulcher in Jerusalem (326-335), that its “exterior walls, adorned by the dressing of the stones, one to another, provided a spectacle of surpassing beauty, no whit inferior to the appearance of marble.” And one building in Constantinople would even acquire the name Mousikos, “on account of the precise joining of its marbles.”

The invisible seams and mirror-imaging of book-matching transformed revetment into an organized chaos, with axes of visual repose and an innate ordering of lozenges, X-, and V-forms. When the symmetries were serial, accordion-wise, the sequential unfoldings produced an extended pattern of waved continuity. Like any repeating pattern, wherever it is cut it seems complete, but the replicative symmetries of the accordion pattern also promised an exponential and unlimited extensibility. Moreover, the perceptual oscillation

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114 Theophanes Continuatus in Mango, 164. Built by Theophilus (829-842) in the Great Palace. Predictably, the passage continues, “when you see this building, you think it is a meadow abounding in various flowers.”
between figure and ground, not to mention a polished surface that vitiated opacity, together questioned the epistemic limits of the wall. The overall image that resulted distanced any arduous history of manufacture. It was as if the wall had simply been unfolded, automatically reproducing itself again and again, rather than built stone upon stone, and this was all the more true for quartering, which presented an instant commensurability of parts. Alberti later recognized the merits of this implicit armature, when he wrote

even the minutest elements must be so arranged in their level, alignment, number and appearance, such that the right exactly matches the left, top matches bottom, adjacent matches adjacent, and equal matches equal... so they appear twinned. The ancients attached such value to this balancing of equal parts that they even tried to match their marble panels exactly...

veining must join with veining, color with color, and so on, so that they each enhance one another\textsuperscript{115}

This passage speaks for itself but Theodore Meteochites’ tortuous description of the church he commissioned, the Chora (fig. 4.25), only becomes comprehensible with the right prompts already in mind:

Through splendid marbles and glorious stones,
Through the best of colors everything that can be seen,
One after the other everywhere throughout this work
Well formed by nature; not at all [like] those [stones] under the earth, but placed on each side, here and there,
Looking as if they bring height from on high [= bring heaven to earth?]:
It is a miracle
To behold, [it is] a pleasurable mixture, how one is fitted together with the other: For with all measured joining they are reconciled,

\begin{flushright}
\end{flushright}
Fitted together in alternate rows through interweaving construction, These with these, and those with those, and nothing that is not [without its respondent].

Book-matching: Painting in Stone

In the galleries of Hagia Sophia book-matching functions as a sort of limitless background, dissolving the perimeter. Viewing the Proconnesian backdrop beyond the Thessalian columns is like glimpsing the sky through trees (fig. 4.23). But, in the nave, architecture and painting are interwoven into a giant and counterchanged patchwork (fig. 4.21). The book-matched panels now become the gems rather than their settings, so to speak. Ekphrasists tend to avoid the jewel metaphor, however, preferring to regard the book-matching as natural painting: “The joining [harmonia] of the finely cut marbles resembles the art of painting. For you may see the veins of the square and octagonal stones meeting so as to form ornament: connected in this way, the stones imitate the glories of painting.”

Not only poets praised this con-junction of stones as rivaling “the glories of painting,” but also prospective patrons. In 508/9 AD, when Theoderic the Great, the Ostrogoth King who had spent his youth in Constantinople,

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117 Paul Descr. S. Sophiae 607-611 (appendix 4.5), here specifying the Proconnesian marble of the west façade. Mango is undecided whether this passage describes the façade or the atrium fountain, but a few lines earlier the poet describes the latter as in Carian marble: Mango, 85. The phrase τετρατόμοις λαέσσι καὶ ὀκτατόμοις (lit. “quartered-cut and eighth-cut stones”) is always translated “square and octagonal stones.” This is a mystery as there are no octagonal panels in Hagia Sophia and no signs that they ever existed externally. Nor do they appear in any contemporary or later byzantine building. Could this be a convoluted way of differentiating between slabs that are cut orthogonally and obliquely to the grain? Or does it refer to complex bookmatching?
wanted to decorate a new building in Ravenna he knew what to ask for. He writes to Agapitus, the Prefect of Rome:

We depute Your Lordship to spare no effort in sending us the most expert marble-workers of the City, so they may join together those pieces which have been exquisitely divided, and, connecting together their different veins, may admirably simulate a natural appearance. Let what conquers nature come from art: let the variegated surface of the marble be woven into the loveliest variety of coloration [picturarum varietate]; because that which has been devised for beauty is always of value.\(^{118}\)

Theodoric’s missive speaks of painting, true, but not paintings. His *picturarum varietas* is normally translated “variety of paintings,” although *pictura* indicates not only images applied to surfaces but also the medium of those images, so that, like its Greek equivalent *graphike poikilia*, it may equally infer “variety of coloration.”\(^{119}\) Moreover, it is always assumed that such praise of


\(^{119}\) Kennell, “Hercules’ Invisible Basilica.” Cf. Chapter 2. For *pictura* as natural coloration and shades of colour: Plin. *HN* 16.95, on trees, “tunc se novas aliasque qum sunt ostendunt, tunc variis colorum picturis in certamen usque luxuriant”; on gems (2.207); on animals (7.7); snake markings (8.85); and peacock colors (24.162). Note also that *pictura* is originally a future participle not a noun. For *pictura* as procedure (“quam ποιητικήν appellamus, qualis est pictura”): Quint. *Inst.* 2.18.2.
“painting” can only refer to the images that were latent in book-matched symmetry, in the manner of a Rorschach inkblot. This widely held assumption has, in fact, given rise to sophisticated theories of a late-antique way of seeing, in which the responsibility of perceiving fully defined figuration was “transferred” from the artist to viewer. But it is conspicuous that Byzantine observers never identify figural images in the revetment, an exclusion all the more remarkable given that contemporary luminaries stressed that color rather than outline gave form to an image. Even when Paul the Silentiary talks of sheep he does not mean that he sees them in the stone, but in his mind’s eye. This is not to say that Byzantine eyes were incapable of detecting such images; rather that the ekphrasists preferred to dwell on the variegation that made Nature herself a painter and stall any train of thought that led to praise of skill in painting, the capacity to portray emotions or the like, which pointed back to human artistry. Choricius even exhorts painters to look to marble veining for inspiration (Appendix 4.1.53). In sixth-century accounts, emergent figuration is always

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121 E.g. Gregory of Nyssa: “in the art of painting, the material of the different colors fills out the representations of the model. But anyone who looks at the picture that has been completed through the skilful use of colors does not stop with the mere contemplation of the colors that have been painted on the panel; rather he looks at the form which the artist has created in colors”: First Sermon on the Song of Songs, PG 44 776A, cited in James, Light: 128, along with a similar passage from John Chrysostom. Aristotle had also said that a panel smeared at random with the loveliest of colors would not give as much pleasure as a portrait done in outline (Poet. 6.19-21).

122 E.g. the marbles “are so variegated by their natural colors that they do not fall short of human painting” (Choric. Laud. Marc. II 40; Appendix 4.1), or the marbles “which Nature like some painter varies, with most contrasting colours” (Procop. Aed. 1.1.60; Appendix 4.3), or the diverse colors in Thessalian marble “so that in one stone various beauties mingle” (Paul Descr. S. Sophiae 348-350).
arrested before it becomes recognizable. As an anonymous and pithy epigram puts it,

“you see that great beauty actually lies in the disorderly order of the veins in the stone.”

Only in the post-iconoclastic period, from the ninth century onwards, do humans, animals, even entire figural compositions become the default mechanisms of perception in book-matching (fig. 4.30). These accounts derive from a different sort of response, pilgrim literature, which desired to identify real presences in sacred sites and made relics of their individual stones (see Chapter 7).

Art and Nature: Human and Divine Painting

The painting of sixth-century ekphrasis is therefore a verb before it is a noun, and “the glory of painting” infers not paintings as pictures, but pictures as painterly. Marble was a miracle of divine artistry in its own right, its veining imprinted (or incarnated) in the substance by the divine mind and disclosed by book-matching. This is the miracle which the Edessene Hymn celebrates when it

\[\text{ Anth. Pal. 9.695: } \text{Ορφας τὸ κάλλος ὁσον ἐστὶ τῆς λίθου / ἐν ταῖς ἀτάκτοις τῶν φλεβῶν εὐταξίαις. Τῇ Λίθῳ Ἀκοιτοῦ / ἐν τοῖς ἀκοίτοις τῶν φλεβῶν.} \]

The lemma specifies εἰς λίθον ἀκοῖτον (κτών) – “on the stone Akoitonos.” Otherwise unattested, this name seems to be a phonetic spelling of Aquitanum: Filippo Maria Pontani, ed., Antologia Palatina (Turin: Giulio Einaudi, 1978-81), 3: 714 (note 695). The stone is therefore Marmor Aquitanicum (or Celticum, i.e. bianco e nero antico), the black-and-white streaked marble which Paul the Silentiary applauds (Descr. S. Sophiae 340) and the “shining slabs of Aquitaine” in Constantine Rhodius (660: Ἀκοιτονος τοις πλάκας ἑλαισμένος).

\[\text{124 For the images at Hagia Sophia, Antoniades, Εἰκοσάς: 1: 94-97 (genike), 159-161 (nartheke); 2: 14-21 (kentrikou chorou).} \]
says that the cathedral’s Proconnesian cladding “is like an image not made by human hands,” or an acheiropoieton (Appendix 4.2, oikos 9). In the early sixth century, before the term acheiropoietos became restricted to miraculous icons, it referred to natural objects made by God rather than by man, the human body, heavenly as opposed to earthly objects, and spiritual rather than material things. Any building that wished to be a heaven on earth must appear acheiropoietic, for, as the sixth-century Alexandrian cosmographer Cosmas Indicopleustes is at continual pains to point out, heaven was not made with hands.

There are independent reasons to believe that the ideators of Hagia Sophia wished to avoid any figural contamination in its decorations. Upon completion in 537 the cathedral’s mosaics were aniconic. All the figural imagery which we now see (or know from old descriptions) was not added until the ninth century, and the expansive vaults were instead tattooed only with ubiquitous crosses (fig. 4.5). Even these may be less strictly figural than signs to consecrate the

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125 Various scholars have considered this passage (c. 543-554) to refer to the actual acheiropoieton of Edessa: summary in McVey, “Domed Church,” 100-01. But Drijvers demonstrates that the first textual reference to the Edessene Image dates only from 787: Han J. W. Drijvers, “The Image of Edessa in Syriac Tradition,” in Kessler and Wolf eds., Holy Face, 19-20.


128 Saints and patriarchs in the tympana, Virgin and Child in the apse, archangels on the chancel vault, portraits of the imperial family and the Deesis in the galleries. It is possible, following Prost’s reconstruction drawing (fig. 4.5), that the giant cherubim in the dome pendentives are Justinianic, but in that case they only stress the church’s Solomonic identity: 1 Kings 6:27. See Alessandra Guiglia Guidobaldi, “I mosaici aniconici di S. Sofia di Costantinopoli nell’e età di Giustiniano,” in La mosaique gréco-romaine VII: Tunis, 3-7 octobre, 1994. VIIe Colloque international pour l’étude de la mosaique antique, ed. Mongi Ennaifer and Alain Rebourg (Tunis: Institut national du patrimoine, 1999), 691-702. For a description of all the various crosses: Maria L. Fobelli, “La
structure, in the manner of “consecration crosses”, their serial repetition not an ornamental dilution “but rather an intent to multiply the power of the sign.”

The magical power of the cross dictated its apotropaic use as a caprice on city walls, and so a fourth-century floor mosaic announces that “not by big stones, not by firm iron and tawny bronze, not even by steel are these buildings girded, but, by the much-invoked signs of Christ.”

The omission of grand figural mosaics, which seems so extraordinary in a building of such artistic ambition, is normally explained by reference to the Monophysite sympathies of the Empress Theodora, Justinian’s spouse. But not all Monophysite churches were aniconic, and icons were certainly allowed in Hagia Sophia, while plain gold mosaics had also adorned the much earlier apses


131 Eunice Dauterman Maguire, Maggie J. Duncan-Flowers, and Henry Maguire, Art and Holy Powers in the Early Christian House (Urbana: University of Illinois Press, 1989): 19 and fig. 18; Curcic, “Design,” 20 and fig. 15. Maguire has also interpreted the various crosses engraved on the pagan spolia incorporated into the façades of the Panagia Gorgoepikoos (late 12th- or early 13th-century), Athens, as crossing-out or “caging” their power: Henry Maguire, “The Cage of Crosses: Ancient and Medieval Sculptures on the ‘Little Metropolis’ in Athens,” in Thymiana: sto mneme tes Laskarinas Boura (Athens: Mouseio Benake, 1994), 169-72. Cf. the late 12th-century eulogy on “the newly built house of Leo Sikountenos at Thessaloniki” where “wondrous is the foundation of this house... in that its lower part receives support from above, for it is upheld by the symbols of virtue that are represented both inside and out”: Mango, 225.

132 Robin Cormack, “Interpreting the Mosaics of S. Sophia at Istanbul,” Art History 4 (1981): 133-35. The Apostoleion (dedicated 550) also seems to have received its first figural decorations only during the reign of Justin II (565-578). Several monophysite churches were aniconic, and some Nubian ones even favored faux-marble revetment over figural fresco: Qasr Ibrim (c. 590), Aksha (7th/9th century), Faras (630). See Marlia Mundell, “Monophysite Church Decoration,” in Iconoclasm, ed. Anthony Bryer and Judith Herrin (Birmingham: 1977), 59-74. But this rule was by no means exclusive and Mundell provides several examples of figural decoration.
of Constantine’s Roman basilicas, St. Peter’s and St. John in Lateran. At Hagia Sophia not only was the substantiality of light to predominate, but also no figuration must compromise the implications of the materials and thence the autonomous metaphoricity of the whole construct.

With regard to the marbles, the ekphrasists, in fact, celebrate a genuine aesthetics of abstraction, in which painterliness and florescence predominate, images which foreground the substance itself. On the one hand, painting was a natural metaphor for incarnation because Byzantine theologians would compare the permeation of divine light in human flesh to paint trapped in the weft of canvas or linen. On the other, the creativity of painting paralleled the fertility of nature. The overall emphasis was on natural generation as artistic creativity, and vice-versa.

Not only book-matched marbling, but opus sectile and mosaic were considered species of painting in stone and it is only in the latter categories that writers explicitly compare the craft with human painting. Cassiodorus compares opus sectile to encaustic painting; Choricius extols not only the “painting of pigments, but also the type which imitates it in tesserae” (Appendix 4.1, sec. 53); and Photios, in the ninth century, goes so far as to dismiss all the illusionist feats of antique painting as child’s play when compared with the fitting of an opus


134 "The plasterwork glistens with the same color as the gems of the marbles [statues?], the gold sprinkled upon it shines in ( ... ), and the gifts of mosaic work delineate the veins of the rock [marble revetment?]; and the whole thing is adorned with metallic hues, where the waxen picture should be recognized." "The marble panelling gleams, colored like gems... the mosaic work sketches the swirling veins of the stones; and the whole is adorned with colored minerals, in which one can make out encaustic painting” ("Renidet crusta marmorum concolor gemmis... rotatas saxorum venas musivi munera describunt; et totum metallicis coloribus comitur, ubi cerea pictura noscatur": Mommsen, ed., Cassiodori, 483) Fragmentary panegyric on the palace of Amaluisinha, regent of the Ostrogothic kingdom, from c. 533, the year in which she made Cassiodorus praetorian prefect.
sectile so snug that it rivals atomic bonding (Appendix 4.7).\textsuperscript{135} In other churches and at later times a unity of lithic arts seems to have thrived from this subtending theme of \textit{pictura}, or \textit{poikilia graphike}. Thus, in the naos of the Chora Church (c. 1316-1321) large mosaic panels intrude into the revetment like over-scaled icons, inviting a comparison between painting in stone and stone as painting, a continuity that was all the more legible because Byzantine painting presses against its surface and is oblivious to perspectival depth (fig. 4.31).\textsuperscript{136}

The early twentieth century would witness an unwitting return to the Byzantine aesthetic in the work of Loos and Mies, both of whom used highly veined marbles to pattern and decorate architecture without recourse to subsidiary ornamentation (fig. 4.32).\textsuperscript{137} Book-matching recurs throughout Mies’ oeuvre and has unsuspected origins in his youth at Aachen, where his father was a stone-mason and where, as a schoolboy at the Domschule, Mies admired the cathedral’s book-matching, which was supposedly Carolingian but actually a historicist fabrication of around 1900 (fig. 4.33).\textsuperscript{138} The wheel would come full circle in 1949, with Peter Blake’s design for an “Ideal Exhibition Space” that used maquettes of Jackson Pollock paintings in lieu of Mies’ onyx and travertine slabs.


\textsuperscript{137} This is a poorly studied field, but on Loos see James Trilling, “Modernism and the Rejection of Ornament: The Revolution That Never Happened,” \textit{Common Knowledge} 3, no. 2 (1994): 79-110.

making, as a contemporary critic put it, “a re-integration of painting and architecture wherein painting is the architecture” (fig. 4.34).\(^{139}\)

When opus sectile was in counterpoint with book-matching it initiated a dialogue between natural art and human artifice. In Hagia Sophia, the spandrels of the nave arcades are sheathed with elaborate opus sectile (fig. 4.35), which “the mason, weaving together with his hands thin slabs of marble, has figured upon the walls connected arcs laden with fruit, baskets and leaves, and has represented birds perched on boughs. The twining vine with shoots like golden ringlets winds its curving path and weaves a spiral chain of clusters.”\(^{140}\) Even though this opus sectile is figurative, still the insistent image of the meadow nourishes the budding intarsie intertwining around porphyry disks like giant cherries, below which flourish delicate, basket-weave capitals.

Altogether, the conjunction of book-matching and opus sectile created a unifying dialectic of art and nature by friendly rivalry, in which nature represents and is represented. The demonstrable artistry of man (opus sectile) was the measure of nature’s handiwork (book-matching) and, vice-versa, natural art was the proof of man’s artistry (techne).\(^{141}\) This reciprocity was sustained by the differences in facture. Both were selected, sawn and set, but unfolding book-matching suggested a natural and apparently artless evolution, while pieces of inlay must be skillfully shaped and configured. Likewise nature exhibited her


\(^{140}\) Paul *Descr. S. Sophiae* 348-354; Appendix 4.5. This passage does not refer to book-matched revetment, as some scholars affirm.

variegation within single slabs, while multifarious art assembled varied fragments into new wholes. These sentiments are verbalized in the dense verses of Ennodius, *On a Confection in Marbles*, which may refer to both revetment and opus sectile:

> When the veins of the stone are coerced by the law of fusion, 
> Craftsmen’s skill (re)creates nature. 
> The marbles have hardened into a solid whole from broken members, 
> Beauty is assembled from various parts into a [single] sheathing, 
> He who could compose a single image from various fragments, 
> Made the stone yield to his will

In the fifth century, Tunisian workshops had been so enthralled by the natural painting of book-matching that they had imitated it in mosaic, effectively creating a second art within art (fig. 4.36). In Hagia Sophia, book-matching

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142 *Carm.* 2.91 (*PL* 63, Col. 0352A): “Marmoribus opere sarsorio. / Visceribus lapidum permixta lege coactis / Naturam faciunt articum studia. / In solidum fractis riguerunt marmora membris, / Partibus in crustam colligitur genius. / Unam de variis speciem componere frustis / Qui potuit, saxum duxit in obsequium.”

I follow Kennell in rendering *permixta lege* as “law of fusion.” *Viscera* could also be translated “innards,” raising the possibility that Ennodius refers to book-matching. According to Vogel *crusta* indicates mosaic encrustation, and *frusta* the marble tesserae: Friedrich Vogel, ed., *Magni Felicis Ennodi opera* (Berlin: Weidmann, 1885), 409, ad indicem. However, Isidore specifies: “crustae tabulae sunt marmoris; unde et marmorati parietes crustati dicuntur” (*Etym.* 19, 11, 13) and the noun often appears in conjunction with *secare* (“to saw”): Pliny *HN* 36.47; Sid. Apoll. *Carm.* 22.164. Finally, *Crusta* literally means “crust.” Thus, Vergil (G. 3.360) uses it to describe the freezing over of a river, and Lucretius (6.626) of the fine shell of mud left by an overnight wind.

*Sarsorius* (“patch-work”) indicates any confection of different materials, from mosaic to fabric, but Du Cange also defines *Opus sarsorium*, “ex quo colligitur ita appellari varias discolorum marmorum crustas invicem commissas, ut unum corpus et unam quasi picturam efficiant”: Charles Du Fresne Du Cange, *Glossarium mediae et infimae Latinitatis*, 7 vols. (Graz: Akademische Druck- u. Verlagsanstalt, 1954): 6: 313, col. 2. Thus, St. Gregory of Tours writes (c. 577 AD) of the church of St. Symphorianus built by Euphronius at Autun in the mid-5th century, “parietes ad altarium opere Sarsurio ex multo marmorum genere exornatos habet” (*Historia Francorum*, lib. 2, cap. 16; *PL* 71, col. 0215A). At this date and place the passage can hardly refer to mosaic. Finally, Seneca uses the same apposition of “crusta” and “frusta” when discussing the building blocks of God’s heavenly edifice (*Ben.* 4.4.2; cf. Chapter 1). Seneca hated mosaic.

suggested an inherent regulatory structure and “naturalized” architecture at the
same time, but the nave paneling was more directly woven into the architecture
by finely carved string courses with floral relief and ball-and-reel moldings that
were essentially exploded fragments of Corinthian trabeation, the most florid
order (fig. 4.37).\footnote{144}

The church interior should vaunt the infinite detail of a real landscape,
and the “meadow” became the dominant metaphor because it signified creativity
in nature and the arts alike (see Chapter 3).\footnote{145} This pairing is exemplified in
Lucian’s description of an opulent civic hall, three/four? centuries before
Justinian, a formula which byzantine ekphrasists adopted verbatim when
discussing marbles:

\footnote{144} Cf. Pierre Gilles (1544-47) on the Chora: “the internal walls are clad with squared slabs of
various marbles, so joined together that they are divided from the bottom up by the mouldings of
the astraras, of other beadings, and others three of which are unbeaded. Above the squared slabs
run three fascias and three identical astraras, two of which are rounded but the upmost is
squared like a regula. Above the fascia are dentils; above the dentals, Corinthian leaves. Finally,
the marble is so distinguished from the mensoles that the Corinthian work stands out in the
revetted panels. But this is far more obvious in Hagia Sophia” (“Parietes eius intrinsecus vestiti
crustis marmoris varii quadratis, ita inter se coniunctis ut distinguantur ab immo sursum versus
modulii astraralorum, aliorum baccatorum, aliorum ter etiam sine bassis. Supra quadratas
crustas discurrunt tres fasciae et tres velut astraras, quorum due teretes, supremus quadratus
velut regala. Supra fasciam denticuli; supra denticulos, folia Corinthia. Denique marmor sic
mensulis distinguitur ut in commissuris eluceat labor Corinthicus. Sed is plenior apparat in aede
Sophiae.” For Hagia Sophia: II, iv. Cf. Sts. Sergios and Bacchos (II, xiv) and the Apostoleion (IV,
ii).}

\footnote{145} E.g. Gregory of Nyssa on the Martyrium of St. Theodore at Euchaita: “the painter has spread
out the blooms of his art... and adorned the church like a beautiful meadow”: \textit{Laudatio S.
Theodori; PG 46.737; Mango, 36-7. Theophilus (early-12\textsuperscript{th} century) writes that once “you have
embellished the ceilings or walls with varied work in different colors and have, in some measure,
shown to the beholders the paradise of God, glowing with varied flowers, verdant with herbs
and foliage... for the human eye cannot decide on which work to fix first its gaze; if it beholds the
ceilings they glow like brocades; if one considers the walls they are a kind of paradise” (laquearia
seu parietes diverso opere diversisique coloribus distinguens paradysi Dei speciem floribus varii
vernament, gramine foliisque virentem... Nec enim perpendere valet humanus oculus, cui operi
primum aciem infigat; si respicit laquearia, vernant quasi pallia; si consideret parietes, est
paradisi species”); C. R. Dodwell, ed., \textit{Theophilus. The Various Arts. De Diversis Artibus} (Oxford:
Clarendon Press, 1986), 63-64 (Bk. 3, praef.).
The frescoes on the walls, the beauty of their colors, and the vividness, exactitude, and truth of each detail might well be compared with the face of spring and with a flowery field, except that those things fade and wither and change and cast their beauty, while this spring is eternal, field unfading, bloom undying. Naught but the eye touches it and culls the sweetness of what it sees.146

The potential totality of art was, in fact, mirrored by the totality of Longus’ ekphrastic paradise (see above), which must include the greatest variety of plants possible in order to flower and fruit for as many months as possible and thereby produce the gamut of fertile nature. Moreover, the combined effects of natural art and artful nature must overwhelm the senses, a blizzard of stimuli leaving viewers purblind in the miasma, and persuading them that the single principle that transcended such diversity was the mind of God Himself. In other words, the infinite and ubiquitous God can only be represented by multiplicity.147 It is also no coincidence that in Greek and Latin the word for “ornament” also signifies “order” and “universe” (χώσμος, mundus), a pairing that induces the mind to move from contemplation of one to the other.148 Ekphrasists loved to stress the disorienting effects of this anagram of the divine mind: “with contracted brows” spectators departed “still unable to understand the skilful craftsmanship” and always “overwhelmed by the bewildering sight” (Procopius;
Appendix 4.3); indeed, the observer “through his whirling about in all directions and being constantly astir, [by that] which he is forced to experience on all sides, imagines that his personal condition is transferred to the subject” (Photios; Appendix 4.7).

The culmination was the greatest diversity within the greatest cohesion, in a marriage between skill and matter. Thus, when Choricius praises the revetment of St. Sergius at Gaza (before 536 AD) he crams into one sentence every theoretically-loaded term in the lexicon. The aisle walls, he writes, “on the one hand, are covered with marble slabs that by one skill (techne) hold together in unique harmony (harmonia), while by the nature (physis) of the material (hyle), they are equally adorned (ke-kosmenenai) with painterly diversity (graphike poikilia).”

Horizons: Groundscape

In the New Testament, all the attributes of Wisdom were reconciled into the figure of Christ-the-Word (1 John 1:9-10, 18): The Word is ab aeterno with God, participates in the Creation of the world, is the light amongst men that shines in the darkness, assumes the flesh of man, and as the first and last manifestation offers the bread and wine, the sacrifice of salvation. John’s words offer a narrative for Hagia Sophia, from the descent of light in the dome to the eventual culmination of all liturgy in the Eucharistic consecration of the sanctuary. In fact, the building synthesizes a processional, basilical space with a cosmological, domical one.

149 Laud. Marc. I 25; Richard Förster and Eberhard Richsteig, eds., Choricii Gazaei Opera (Leipzig: B. G. Teubner, 1929), 9: τοῖχοι πλάκας ἡμιεσμένοι τῇ μὲν τέχνῃ μὴ συνεχομένας ἀρμονία, τῇ δὲ φύσει τῆς ὕλης ίσα καὶ γραφικὴ ποικιλία κεκοσμημένας
This groundscape is activated by the Divine Liturgy, the event which, according to Byzantine theology, made two worlds synchronize and mesh.\(^{150}\) Those on earth concelebrated in unison with the entire heavenly host and not only was the earthly service “an image (εἰκών) of the Liturgy in heaven... [so that] we should imagine that we are in heaven,”\(^{151}\) but the church became “a heaven on earth wherein the heavenly God dwells and walks.”\(^{152}\) Russian ambassadors who entered the church in 987 were, by their own account, converted on the spot both by the vision of this heaven upon earth and the conviction that the angels themselves descended from the gold mosaics to celebrate the liturgy.\(^{153}\) At the climax of this synchrony, the communion, the ingestion of the Eucharistic wine and bread even corporeally transformed the participants, making them Christ-like and briefly walking temples themselves.\(^{154}\)

The groundscape of Hagia Sophia engulfs a west-east liturgical axis from narthex to sanctuary, because the broad nave hosted the grand entrances made by the clergy and the emperor through the doors at the west end on important


\(^{152}\) Germanos of Constantinople (d. c. 733), Hist. Myst. 1; Mango, 141-142.


feasts. The sanctuary responded by projecting a raised walkway (solea), like a seaside pier, to an elevated lectern (ambo) almost at the epicenter of the domed nave (fig. 5.2). The public looked on from the surrounding aisles and galleries and the central space effectively became a bifocal amphitheater for the spectacle of the Mass, centered on the ambo and the apse. The twin foci reflected the basic division into the Liturgy of the Word and the Liturgy of the Eucharist. Step one took place at the ambo, in the most luminous part of the building, almost directly below the dome. This was the site of the pronouncement of the Word, where the Eucharistic rite was prepared by three readings before an opulent offertory. At its destination, a sanctuary like an operating theater, the Eucharistic sacrifice itself was consummated at the high altar, which was screened from the nave but not from secular sight.

With the light symbolism discussed above, the underlying theme of Wisdom as Word-made-Flesh, and with the action of the liturgy all in mind, we may imagine a fusing of Hagia Sophia’s vertical and horizontal axes in the

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156 Note that Cosmas Indicopleustes not only describes the sky as a dome (ὁς θόλος λουτρόο μεγάλη) but talks of the “arena-like [πέλλα] space below”: *PL* 88, cols. 181, 380.


158 The sanctuary screen was an open colonnade, unlike today’s solid iconostases, which are late- or post-byzantine innovations. Curtains are mentioned as early as the 4th century, but they were drawn only at solemn moments like the consecration: Dioklea, “Meaning,” 24, with sources.
following terms. The Light of Wisdom, which portends Incarnation, descends on
the church, from its dematerialized upper fabric to infuse its lower regions,
enlightening the audience too, and through the enacted liturgy and with the
encompassing participation of the faithful, it materializes in the Eucharistic gifts
within the sanctuary.\textsuperscript{159} While the domed nave was the zone of the Word as a
repository for light, the cavernous sanctuary was the zone of the flesh where
Christ’s two natures fused.

\textbf{Within the Sanctuary: Transformational Materials}

The emblem of this transformation was the high altar. Within the
sanctuary the platform for transubstantiation, the mensa, was an alchemist’s
delight. It was an amazing alloy of “gold, silver, various precious stones, pearls
and mother of pearl, copper, electrum, lead, iron, tin, glass and every other
mineral,” ground up, smelted in a furnace and then poured into a mould. The
casting that resulted was astounding:

Who can behold the appearance of the altar-table without
being amazed? Who indeed can comprehend it as it changes
color and brilliance, sometimes appearing to be gold, in other
places silver, in another gleaming with sapphire – in a word,
reflecting seventy-two hues according to the nature of the
stones, the pearls and all the metals?\textsuperscript{160}

\textsuperscript{159} An analogous argument is made for the liturgical disposition in later byzantine churches in Mathews, “Transformation,” 191-214. According to the Mystagogia (628-630) of Maximius Confessor, chs. 1-7, the binary of hierateion / naos (i.e. sanctuary / nave) expresses the dialectic between invisible, angelic heaven and corporeal world of men; soul and body; higher and lower faculties.

\textsuperscript{160} Narratio, 17; trans. Mango, 99. “Electrum” here signifies a silver-gold alloy, not amber. The altar is also described by Kedrenos, Niketas Choniates, Robert de Clari and in the Souda: Dagron, Constantinople: 242-43 (note 139). All observers specify that it was an amalgam not encrusted or cloisonné work, as often asserted. One traveller (1136/43) even thought the altar was “cast from brilliant emerald” (ἐξαλάμπτων σμαραγδίνω λίθω πεζοφανένων): Krijnie N. Ciggaar, “Une
description anonyme de Constantinople du XIIe siècle,” Revue des Études Byzantines 31 (1973): 339, 45-46. Made in 562 to replace that destroyed by falling vaulting in 558, the crusaders finally
melted it down in 1204. The altar of the Pharos Chapel may have been made in similar fashion
(see Photios?????)
All these precious stones must have been somehow in-set after casting, otherwise they would have burnt in fusion, and one guesses that the alloy matrix was heat-treated or lustered for iridescence. Such treatments had been the limited goal of practical, Hellenistic alchemy. But the speculative alchemy that emerged in late antiquity preferred to regard such shifting surfaces as the signs of transmutation, itself a paradigm of the laws of the universe. For, Platonic-Aristotelian tradition persisted in reasoning that the four elements (fire, air, water, earth) were permutations of a stable *prima materia* under the influence of the four principles (hot, dry, cold, moist), and that a universal spirit (or “divine water”) infused and enabled their elemental interconvertibility. The primeval origins of the altar constituents were, in fact, spelled out in its long dedicatory inscription, which began by stressing that it amalgamated all the products of God’s creation (“We your subjects bear to you, Christ, those your things that belong to you...”). Or does this refer to the Eucharistic gifts? Even so, it becomes and image of transformation, of elements and their accidents. This artifact could, therefore, reclaim a Christianized alchemy that paralleled


transmutation with the sacramental act, and alchemically constitute a material résumé of creation in an original material of absolute purity.\textsuperscript{163}

The vessels for the Eucharistic gifts were probably no less transformational. No description survives of those used in Hagia Sophia, many of which were indubitably gold and bejeweled, but later imperially commissioned chalices of agate and pattens of onyx survive to give an idea (figs. 4.38-9).\textsuperscript{164} Onyx, virtually synonymous with alabaster, was ideal for the patten: as Paul the Silentiary noted, it looked like flesh seen through a finger nail and the mineral actually borrowed its name (ὀνυξ) from the resemblance.\textsuperscript{165} Even its nebulous translucency presented a potential route to divine flesh, as several patristic writings identified Christ with cloud, and this cloudiness was equated with His incarnation (See Chapter 3).

Agate chalices were even more implicative, for their color and translucency suggested solid wine or frozen fire. Long ago, Augustine remembered, Varro had commented that a wine-jar took the place of a cult statue in a Temple of Liber on the grounds that “the container stood for the thing

\begin{footnotes}
\item[163] Dagron, Constantinople: 284. Dagron adduces the 6\textsuperscript{th} –9\textsuperscript{th} century alchemical texts in Pierre E. M. Berthelot and Charles E. Ruelle, eds., Collection des anciens alchimistes grecs, 4 vols. (Paris: G. Steinheil, 1887-88). The Hagia Sophia altar also surely evoked the complex metallurgy of the Mosaic tabernacle (esp. Exodus 31:3-5) and Solomon’s Temple (2 Chronicles 2:7).
\item[164] The following examples are in the Treasury of S. Marco, Venice: David Buckton, ed., The Treasury of San Marco, Venice (Milan: Olivetti, 1984), 90-95, 129-140, 156-170, 189-190, 194-5, 252-7; cat. no. 5 (ewer); nos. 10, 11, 15, 16, 17, 23 (chalices); nos. 18, 25 (pattens); no. 35 (cruet). Many of these vessels are thought to come from the Pantokrator church, the seat of the Venetian podestà during the Latin domination (1204-61). Hagia Sophia, the seat of the Venetian patriarch, is also possible. They could have left the cathedral during the evacuation of 1261. Unfortunately, the only inventory of the treasury of Hagia Sophia dates from 1396: Franz Miklosich and Joseph Müller, eds., Acta et diplomata graeca medii aevi sacra et profana, 6 vols. (Vienna: C. Gerold, 1860-90), 2: 566-70. However, we are told that Justinian endowed the church with gold and silver vessels and works in precious stones (Procop. Aed. 1.1.64).
\item[165] Descr. Amb. 50ff.: “a rosy bloom mingled with pallor, or the fair brightness of human fingernails”: Mango, 92.
\end{footnotes}
Porphyry vases were venerated here and there as the vessels of the water that the Savior had miraculously transformed into wine at the marriage of Cana. The chain of association was facile: the fine flecks in this burgundy stone seemed almost to bubble, and when ruby wine filled crystal goblets, Muslim poets imagined that the wine was one with its vessel. Likewise, the blended veins of agate or sardonyx vessels, as exemplified in Suger’s famous chalice (fig. 4.40), might recall the tempering of wine with hot water, a practice that

166 Varr. *Antiq.* quoted in August. *De civ. D.* 7.5: “in the temple of Liber a wine-jar were placed to denote wine, the container standing for the thing contained” (“in Liberi aede oenophorum sisteretur, quod significaret vinum, per id quod continet id quod continetur”).


169 “A precious chalice out of one solid sardonyx… in which one [stone] the sard’s red hue, by varying its property, so keenly vies with the blackness of the onyx that one property seems to be bent on trespassing upon the other,” (“calicem pretiosum, de uno et continuo sardonice... quo uno usque adeo sardii rubor a nigredine onihini proprietatem variando discriminat, ut altera in alteram proprietatem usurpare inniti aestimetur”: Suger *De admin.* 34.207-208); Erwin Panofsky and Gerda Panofsky-Søergel, *Abbot Suger on the Abbey Church of St.-Denis and its Art Treasures* (Princeton; Guildford: Princeton University Press, 1979): 78-79. *Nigredo* is surely a lapsus or scribal error for *albedo*. 
continues in the Orthodox rite until this day. In the Catholic rite (tepid) water is also added to the wine, expressly to symbolise the incarnation, the water representing Christ’s humanity and the wine Christ the vine. Moreover, from a Eucharistic standpoint the wine in the chalice transubstantiated into Christ’s blood during the sacramental sacrifice, and since the moment of transubstantiation was as explosive as nuclear fission, it was fitting that translucent agate glowed like a coal, or as fiery as well-stirred wine. Those who drank from the “mystic cup,” imbibed “a stream of repentance” that flowed direct from the Holy Spirit, and the chalice miniaturized the surrounding church as vessel of brilliant wisdom.

These are all hypotheses but the best evidence for the impact of agate and sardonyx vessels on the imagination comes from a later myth that seems an elaborate allegory of communion. In Wolfram von Eschenbach’s Parzifal (c. 1197 – 1209/15), the Holy Grail is a clear “garnet hyacinth,” which the apostles drain at the Last Supper and use to catch Christ’s blood at the crucifixion. In later

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170 Byzantine theories of transubstantiation never assumed the complex theoretical articulation that they did in the West, but they did affirm that the bread and wine transformed into Christ’s “very Body and very Blood”: Dioklea, “Meaning,” 17.

171 John of Damascus describes the Eucharist as a divine “coal” (ἀνθορξία); cf. Isaiah 6.6. Other sources describe the eucharistic transformation as a descent of fire: Dioklea, “Meaning,” 12-13, with sources. For fiery agate, see Chapter 2. Aristotle explained that the colour oinops (Homerian “wine-dark”) occurred when sunlight intermingled with the dark juice of the berry, as when stirring wine in the krater (Col. 2.792b.7-8). Homer had called wine aithops (fiery), perhaps because when the juice ferments it visibly “boils”: Erkinger Schwarzenberg, “Colour, Light and Transparency in the Greek World,” in Medieval Mosaics. Light, Color, Materials, ed. Eve Borsook et al. (Florence: Silvana Editoriale, 2000), 21.


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versions of the legend the mineral eventually superseded the receptacle in
importance, and it was a red powder (or panacea) ground from the Philosopher’s
stone that was mixed with alcohol to create the elixir of eternal life.

Inscriptions also drew out the material latencies in the Byzantine vessels.
During communion, the élite consumed the Host off onyx patens inscribed
“Take, eat, this is my body” \footnote{174} \textit{(fig. 4.39)} and drank wine from agate or sardonyx
chalices which commanded “Drink all of this, this is my blood” \footnote{175} \textit{(fig. 4.38)}. As
these beckoning phrases were quoted directly from the Eucharistic consecration,
they may be less labels than invocations. Amulets often require such adjuncts,
and lapidaries not only specify the miraculous properties of individual stones
but the inscriptions necessary to activate them, agate and sardonyx included.\footnote{176}

In the West, by the thirteenth century, lapidaries are quite explicit on this point,

\textit{LABETE ΦΑΓΕΤΕ ΤΟΥΤΟ Μ[ΟΥ] ΕΧΙ ΤΟ ΣΩΜΑ}: Buckton, ed., \textit{Treasury}, 169-70. 10\textsuperscript{th}/11\textsuperscript{th}
century.

\textit{ΠΙΕΤΕ ΕΞ ΑΥΤΟΥ ΠΑΝΤ[Ε] ΤΟΥΤ[Ο] Μ[ΟΥ] ΕΧΙ ΤΙ ΑΙΜΑ}: The inscription
EKXYNOM[IΣ] ΕΙC ΑΦΕΚΙΝ ΑΜΑΡΤ[ΙΩΝ] (“that of the New Testament that was shed for you
and the remission of sins”). \textit{Chalice of the Patriarchs, or of Theophylact} (10\textsuperscript{th}/early 11\textsuperscript{th}
century): Buckton, ed., \textit{Treasury}, 159-65. These phrases appear in the consecration formulas of both St. John
Chrysostom and St. Basil: Charles E. Hammond and Frank E. Brightmann, eds., \textit{Liturgies Eastern
and Western} (Oxford: Clarendon Press, 1896), 1: 15ff. Other utensils bear equally allusive
epigrams: one by Manuel Philes (1290/1330) inscribed on a \textit{panagiarion} (liturgical paten used to
offer bread to the Virgin) speaks of “the stone” bearing “earth” \footnote{177} \textit{(i.e. an image of the Virgin),
which bears “the grain” (Christ as bread), the stone often commended as “unblemished”: Alice-
Akademie der Wissenschaften, 1985): 79-82. The word most frequently used for steatite
(άμιαντος) meant “spotless.”}

and the highly influential lapidary of “Damigeron” agate is applauded both for its varied color and its
efficacy (against snake venom) when mixed with wine: Robert Halleux and Jacques Schamp, eds.,
\textit{Les Lapidaires Grecs. Lapidaire Orphique, Kérygmes Lapidaires d’Orphée, Socarte et Denys, Lapidaire
Dionysius} the stone Sard-agate (λίθος σαρδαχάτης, not known to Pliny) will work against all ills
when an (intentionally?) illegible inscription is added: Halleux and Schamp, eds., \textit{Lapidaires}, 173.
“Damigeron” lists images that must be engraved on stones in order to “sanctify” and
“consecrate” them: Halleux and Schamp, eds., \textit{Lapidaires}, 264ff.
even beginning by comparing the power of gems to the act of Transubstantiation (see Chapter 8). Later western chalices also bear inscriptions that are clearly apotropaic, warding off the devil, because each Eucharistic re-enactment of Christ’s resurrection was a triumph over evil.\footnote{\cite{Jones2000}}

**Divine artificers**

As Procopius says, visitors to Hagia Sophia must understand immediately that it had been fashioned “not by human power or skill, but by the influence of God.” The designers of Hagia Sophia, Anthemius and Isidorus, were the ideal candidates to meet this challenge. They were not architects but *mechanopoiei* (*mechanici*), men whose feats of monumental construction often suggested that they were more magicians than engineers.\footnote{\cite{DeLaine2002}} As Cassiodorus had put it, twenty-five years earlier, c. 507 AD:

> All the disciplines, the whole endeavor of the wise, seek to know the power of nature so far as they can. Only engineering [*mechanisma*] tries to imitate it by contraries, and in some things, it is proper to say so, even seeks to surpass it... the Engineer [*mechanicus*] it is proper to say, is almost a partner of nature, unlocking her secrets, changing what she reveals, playing with wonders, and making such exquisite counterfeits that what we take for truth is certainly artificial.\footnote{\cite{Var}}


\footnote{\cite{Var}} Var. 1.45.10-11 (to Boethius): “universae disciplinae, cunctus prudentium labor naturae potentiam, ut tantum possint, nosse perquirunt: mechanisma solum est, quod illam ex contrariis appetit imitari et, si fas est dicere, in quibusdam etiam nititur velle superare... Mechanicus, si fas est dicere, paene socius est naturae, occulta reserans, manifesta convertens, miraculis ludens, ita
Anthemius and Isidorus in particular pioneered a blend of armchair physics and practical engineering. They wrote treatises on conical sections, built bridges and damned rivers. Anthemius even devised earthquake-simulators and catoptrical machines and was, as the near contemporary Agathias says, “one of those who apply geometrical speculation to material objects and make models or imitations of the natural world.” It must have been this almost occult knowledge that appealed to Justinian when he sought a cathedral that was out of this world, a construction that was not simply an accumulation of technical feats but an object that concretized supernal geometries to result in something, like Christ, “not of this building.” As even the Kontakion says, the church surpassed “the whole of mankind’s knowledge of technology” (Appendix 4.4, strophe 5) and the unwanted proof of this ambition was that the dome would collapse no less than three times (558, 989, 1346). It is also telling that Justinian did not waste his mechanopoiei on more conventional commissions than the Word-made-Flesh, however prestigious.

The theme of Anthemius and Isidorus as channeling supernatural forces is taken up in the ekphraseis. Since they worked as a team they replayed the roles

pulchre simulans, ut quod compositum non ambigitur, veritas aestimetur.” Here said in the context of timepieces.


181 Constantine Rhodius assumes that “either Anthemius or Isidore” designed the Apostoleion (l. 640; Appendix 4.10) but no other source mentions them: Janin, Géographie: 46-55. Sts. Sergius and Bacchus is sometimes attributed to the pair, but thanks only to its putative similarity to Hagia Sophia.
of Bezalel and Aholiab, the ur-artificers who had built the tabernacle to God’s own blueprints (Exodus 31:3, 6), and probably for the same reason the Edessene hymn stresses the paired architects, Asaph and Addai, in its dedication. Justinian, for his part, became a new Moses and a new Solomon in masterminding the enterprise and interpreting the will of the Sapiens Architectus, that is the Almighty Himself. Thus, Procopius writes that when Hagia Sophia’s vaults threatened to collapse during construction Justinian found the remedy “impelled by I know not what, but, I imagine by God.”

**Language and the Limits of Representation**

Three inauguration performances celebrated Hagia Sophia’s rebirth in 563. First, a series of readings from Scripture, second the dedicatory anthem (the kontakion), and lastly Paul the Silentiary’s ekphrasis from the gallery. All enjoyed mutually supportive roles in unfolding the meaning of the building. The kontakion, in contemporary Greek, glossed the preceding readings on Creation, the Incarnation, and the various sorts of tabernacle to demonstrate how the limitless divinity could indwell the building at hand. It concluded that thanks to the mystery of the Eucharist, Hagia Sophia became a genuine residence for God as a spiritual apparition of which the material Cosmos was an imperfect representation.

Ekphrasis communicated the same theme in a more internalized way. Firstly, like Theodore Meteochites’ much later paean to the Chora, Paul

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182 Paul 1 Corinthians 3:10; Concina, Arti: 63.

183 Palmer discerns Genesis 1; Exodus 25ff and 35ff; I Kings 8; Chronicles 5-7; Psalms 23 and 65:5, 7; Proverbs 8-9 (Proverbs 8:24-29); Jeremiah 33:11; John 1; I Thessalonians 5:17; Hebrews 8 and Job 38; Palmer and Rodley, “Inauguration,” 139-40. Malalas recounts that Psalm 23 (“open up the divine palace to our verses”) was certainly sung: Macrides and Magdalino, “Architecture,” 55.
declared in Homeric Greek, a language that had become archaic a full millennium before he wrote. Today’s equivalent would be to hold forth within a newly unveiled building by, say Frank Gehry, using only Shakespearean English.\textsuperscript{184} Predictably, such willful anachronism, which other authors purposefully adopt, has often been dismissed as “turgid archaism” or marginalized as a court language of scholarly rarefaction.\textsuperscript{185} But Homer was not revered just as a poet but as an ancient sage. Like Virgil, he had long been scrutinized by exegetes seeking to exhume the proto-Christian allegory supposedly buried in his texts.\textsuperscript{186} Furthermore, Paul’s verse is heavily indebted to the pioneering poet Nonnos (c. 470 AD), who had resurrected Homeric metrics to compose not only the enormous \textit{Dionysiaca} but also the equally long \textit{Paraphrase of the Gospel of John}.\textsuperscript{187} The linguistic archaism of such poetry consciously linked Byzantine culture with biblical prehistory in a retroactive synthesis, and thus Paul’s neo-Homeric voice not only appealed to the heroic dimension of the epic, 

\begin{enumerate}
\item As Paul the Silentiary is, in fact, translated in Elizabeth Barrett Browning, \textit{The Greek Christian Poets and the English Poets} (London: Chapman & Hall, 1863): 70-75.
\end{enumerate}
but invoked a timelessness that paralleled the incommensurability of the building at hand.\textsuperscript{188}

Secondly, in the collective effort to will Hagia Sophia into a spiritual vision, its success was best apparent when it became literally unsayable, a regular trick of such orations. As Aristeides had commented in his own \textit{Laus Urbis}:

all men sing of and will sing of this city [Rome], but they detract from it more than if they were silent, in as much as in silence it can neither be magnified nor diminished from its existing state, but it remains to be known in an uncontaminated condition\textsuperscript{189}

The elaborate ekphraseis of Hagia Sophia were not, as we have said, essays in grandiloquence of indecipherable privacy. They were inductive texts intended to assimilate the material construction to the divine order, re-enacting the building verbally, building it anew at every declamation. If Hagia Sophia truly embodied the divine in a vision of the invisible, the measure of success of the divine artifact was the ultimate imperfection of describing it. The divine was ungraspable, could only be glimpsed in reflection, and could not be constructed in words. Language must fail, and this indescribability became the literary correlative to the object-not-made-by human hands.

\textsuperscript{188} At Skiprou (Boetia, Greece), all inscriptions on the Church of the Virgin (9th century) are in contemporary Greek except those which commemorate the patron’s eternal virtues, which are in Homeric verse: Papalexandrou, “Text,” 278-79. Paul’s description also follows an internalized, ahistorical time-loop, for his narrative begins with the dawn procession that had inaugurated the church and climaxes in night where she becomes a beacon of eternal illumination for mankind: Macrides and Magdalino, “Architecture,” 59-61, 73.

Ekphraseis of Hagia Sophia conclude that the tongue is undone and the reed broken right up to the bitter end of Byzantium. The last Greek ekphrasis by the last Greek humanist, written in 1411 by Manuel Chrysolaras, is a disingenuously spontaneous tumble of cunningly premeditated thought. Summing up a tradition of speechlessness in the face of the ineffable, where reames of words must be expended to say nothing, this merits full quotation:

[52] But that famous church, to which they rightly gave the name of the Divine Wisdom – and truly it is not a product of human wisdom... I believe, in fact, that nothing similar has existed and nothing similar ever will exist in the world. For this reason I too, having simply brought it to mind, will abstain from any other consideration of it, because one can say no more about it that measures up to reality, indeed, one cannot say anything about anything [there]. Whoever has it in mind is incapable of thinking about anything else, and every expression, I must repeat, proves inadequate. And if one does begin, one must spend more time talking about it than all the remainder, without succeeding, however, in ever saying anything that gave it its proper due... [54] What discourse can ever raise itself to a height or grandeur equal to her height or grandeur? What discourse could ever reach her beauty? What discourse could reach perfection worthy of comparison with hers? What simplicity, I mean, would equal her simplicity? What words would succeed in effect and variety so as to equal her variety? Which expressions would equal the precision with which materials have been deployed in her every part, and rival their excellence? Or so well structured as to bear comparison with her harmonious structure? And even if we wished to choose only some part or detail, even an insignificant one, we would still be unable to speak of it in a worthy manner. We could not even express ourselves in an adequate manner about the doors, or the entrances, about the floor, the vestibule and the beauties that can be admired in front of the doors, about the columns, mosaics, the marble revetments of the walls, the glass, bronze, lead, iron, sapphires, gold, or even the glass of the mosaics, or about any other part that we could meticulously catalogue.190

particular at 166-167; a complete translation appears at 199-215 (the version given here is mine). In the earliest ekphrasis (1453/61) of S. Marco, Venice, one opportunist poet resorted to this convention to avoid describing the interior altogether: Lionello Levi, “Un carme greco medievale in lode di Venezia,” L’Ateneo Veneto 25 (1902): 188-94; trans. Lionello Levi, “Una curiosa leggenda veneziana in un carme neogreco,” L’Ateneo Veneto 34 (1911): 137-40. Note also that when Dante looks into the face of God, he laments: “all’alta fantasia qui mancò possa” - “at this high moment, ability failed my capacity to describe,” Paradiso 33.142).
Chapter 4: Hagia Sophia and Byzantium

Appendix 4

1) Choricius on Saint Stephen at Gaza (c. 540-542)

The church then awaits us, the part of the oration expected long ago, a burden greater than my skills. The very church for which many crafts labored, stoneworkers, those knowing about slabs [of marble], and [the artists] through whom imitation [is accomplished] in colors, this solitary oration attempts to describe.

And yet, I think it fit that the different skills came into rivalry with each other as in a public contest, concerning which one of them will execute its appropriate task more carefully; and apart from these considerations it is easy neither to view all of these things, since one’s vision is directed from one object to another, nor to describe whatever one has seen. Thus, we fall short of the true merit [of the church] by twice as much, because the church surpasses the [power of] vision while the vision surpasses the description.

...the harmony[symphonia] of the work here [the church interior] is the foremost and greatest beauty; and the second is that each homeland of the most famous marbles presented [them] here as gifts.

These slabs are a benefit shared by the church, where [they create] an elegant work of art, and by the cities, for which they provide a reason for good reputation; because the one who sees and admires them immediately praises the city that sent them.

And the four greatest columns, which nature has dyed with the colors of a royal garment, determine the area that is not accessible to those who are not reckoned among the holy Chorus.

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Chapter 4: Hagia Sophia and Byzantium

The lower part [of the apse wall] gleams with marbles of many kinds. Among these, one particular stone, of one kind by nature, but made by skill into many forms, surrounds the window, which is both broad and tall in proportion, which lies in the middle; this [stone] alone supplies the facing on either side along the edges of the window which it entirely surrounds, and, adorning the two walls on either side, does not stop until it has mounted on both sides and has reached the band resting on the window, which is itself of the same stone.

For in this way bands of marble conceal the wall in well-joined fashion, and are so well-fitted that you would suppose that they were the work of nature, and they are so variegated by their natural colors that they do not fall short of human painting. Indeed, of the painters’ students, whose test is to choose and copy the fairest of things in existence, should be in need of columns to reproduce, or lovely stones – and I have seen many such things painted – they will find many fine models here.

For example, let there be one who is fond of viewing the painting, not only painting in pigments, but also the type which imitates it in tesserae.
Its marble resembles an image not made by human hands, and its walls are suitably overlaid. And from its brightness, polished and white, light gathers in it like the sun.

Lead was put on its roof so it would not be damaged by streams of rain; There is no wood at all in its ceiling, which is as if entirely cast from stone.

It is surrounded by magnificent courts with two porticoes composed of columns Which portray the tribes of Israelites who surrounded the [Mosaic] Tabernacle.

On every side it has the same façade; the form of the three of them is one Just as the form of the holy Trinity is one.

One light shines forth also in its sanctuary by three open windows, And announces to us the mystery of the Trinity, of the Father and the Son and the Holy Spirit.

And the light of its three sides abides in many windows. It portrays the apostles, Our Lord, the prophets, martyrs and confessors.

The ambo is placed in the middle [of the church] on the model of the Upper Room at Zion, And under it are eleven columns, like the eleven apostles that were hidden.

The column that is behind the ambo portrays Golgotha in its form, And fastened above it is the cross of light, like Our Lord between the thieves.

Five doors open into [the church] like the five virgins, And the faithful enter by them, gloriously like the virgins to the bridal couch of light.

Portrayed by ten columns that support the Cherubim of its altar Are the ten apostles, those who fell at the time our Savior was crucified.

The structure of nine steps that are placed in the sanctuary together with the synthronos Portrays the throne of Christ and the nine orders of angels.

Exalted are the mysteries of this temple in which heaven and earth Symbolise the most exalted Trinity and our Savior’s Dispensation.

The apostles, [the church’s] foundations in the Holy Spirit, and prophets and martyrs are symbolized in it. By the prayer of the Blessed Mother may their memory abide above in heaven.

May the most exalted Trinity that strengthened those who built [the church] Keep use from all evils and preserve us from injuries.
3) Procopius on Hagia Sophia (c. 554/560)

...it abounds exceedingly in sunlight and in the reflection of the sun’s rays from the marbles. Indeed one might say that its interior is not illuminated from without by the sun, but that the radiance comes into being within it, such an abundance of light bathes this shrine...

And upon this circle [=the upper rim of the pendentives] rests the huge spherical dome that makes the structure exceptionally beautiful. Yet it seems not to rest upon solid masonry, but to cover the space with its golden sphere suspended from Heaven. All these details, fitted together with extraordinary skill in mid-air and floating off from each other and resting only on the parts next to them, produce a single and most extraordinary harmony in the work, and yet do not permit the spectator to linger much over the study of any of them, but each detail attracts the eye and draws it on irresistibly to itself. So the vision constantly shifts suddenly, for the beholder is utterly unable to select which particular detail he should admire more than all the others. But even so, though they turn their attention to every side and look with contracted brows upon every detail, observers are still unable to understand the skilful craftsmanship, but they always depart from there overwhelmed by the bewildering sight...

The entire ceiling is overlaid with pure gold, which combines glory with beauty, yet the refulgence from the stones prevails, vying as it does that of the gold...

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Chapter 4: Hagia Sophia and Byzantium

59 τὶς δὲ τῶν τε χιόνων καὶ λίθων διαφημίζεται τὴν εὐφρέτειαν, οἷς τὸ ιερὸν κεκαλλώσιται; λειμώνι τις ἀν ἐνεπτυχθήσεται δώδεκα φόραι τὸ ἀνθοῦς, θαυμάσεις γὰρ ἂν εἰκότας τὸν μὲν τὸ ἄλογον, καὶ οἷς τὸ φοινικοὺς ἐπανθεῖ καὶ ὁν τὸ λειχὼν ἀπαστράπτεται, ἐτὶ μέντοι καὶ οὓς ἔναντι τοῖς πολυκλῆις χρυσάς ἁϊστεῖ τὶς ζωγράφοις ἡ φύσις, ὁπισχοῖα δὲ τὶς εὐξομένως ἐς αὐτὸ τοῖς, ἐξωθήσεται ὁ εἰκότας ἄλογος, ἀλλα θεοῦ ῥοπῆ τὸ ἔργον τοῦτο ἀποτελῆσθαι· ὁ νοῦς δὲ οἱ πρὸς τὸν θεὸν ἐπαινομένως ἀφοβεῖτε, οὐ μικρὸν που ἤγομένος αὐτὸν εἶναι, ἀλλ ἐμφαλάζεις μᾶλλον οἷς αὐτὸς εἶλετο.

60 Who could recount the beauty of the columns and the stones with which the church is adorned? One might imagine that he had come upon a meadow with its flowers in full bloom. For he would surely marvel at the purple of some, the green tint of others, and those on which the crimson glows and those from which the white flashes, and again at those which Nature like some painter varies, with most contrasting colours. And whenever anyone enters this church to pray, he understands that it is not by any human power or skill, but by the influence of God, that this work has been so finely turned. And so his mind is lifted up toward God and exalted, feeling that He cannot be far away, but must especially love to dwell in this place which He has chosen.

4) Romanos Melodios? Anthem for Second Inuguration of Hagia Sophia, Constantinople (562)

O Lord, You have demonstrated at once both the splendor of the firmament above and the beauty of Your dwelling here below, this holy tabernacle of Your glory; make firm the latter for ever and ever and accept the prayers which we offer in it unceasingly, by the intercession of the Mother of God, to You

THE LIFE AND RESURRECTION OF ALL

1 In celebrating the Word’s divine sojourn in the Body may we, the children of this Church, be thatched with luminous virtues [worthy] of His grace, and may we prove, [by] divine illumination, a worthy dwelling-place of knowledge, confessing in wisdom the praises of the Faith; for in truth the Wisdom of the Father built for herself a house of Incarnation and dwelt amongst us, above understanding:

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2 Ως τόν ὅλων τῷ χράτει δεσπόζοντος εἰς τά Ἰλαθεν ὁ κτίστης, καὶ ἂς ἴδιον τοῦτον παρεδέχομεν, καὶ ναὸς γὰρ αὐτῷ πρὸς κατοικήσειν προσεκινεῖται:

οὕτω γὰρ άξιον τόν βασιλέα εὐτέλεις στήλαις ὑποδεσθήσας
diά τοῦτο προφηθέσωμεν τῆς Σωφίας τό ἀγίαμα ἐκ βασιλείας ἐμφανίζει πρὸς ἄνευφημήσειν καὶ λατρεῖαν τοῦ μυστηρίου.

δι’ οὗ σύσσωκε τόν χώσμον ὁ Χριστός,

ή πάντων ζωή καὶ ἀνάστασις.

3 Νῦν πληροῦμενον ἄντος ὅρομέν τις γραφής τῆς ἐνδέχοντος τῶν λόγων. Εἰ θεὸς μετ’ ἀνθρώπων οἰκίσκει, ὡς ο τρίτην Σολομών οὐ διστάζων, φησίν, ἀλλ’ ἐν θαῦματι τοπικὴν σκήψει κατοικίας ἐνθάδε ἔκλυτον, τὸν γὰρ ἐμψυχον ἐκ παρθένου ναὸν περιπέπησατο ἐαυτῷ ἀδιαφέρεσιν, καὶ ἐγένετο μεθ’ ἡμῶν ὁ θεός,

ή πάντων ζωή καὶ ἀνάστασις.

4 Εἰς σαρκὰ ἐνοικίσας ο λόγος κατοικεῖν ἐν ναοῖς χειροτεκτικοῖς εὐδοκεῖ ἐνεργεία τοῦ πνεύματος μυστικῶν τελετῶν τῆς αὐτοῦ παρουσίαν πιστομένοις, καὶ βροτοὶς χάρις πανδιατάται ὁ ταῖς πάσιν ἀφόθητος καὶ ἀπρόσιτος· καὶ οὐ μόνον ἁμόστησας τοὺς ἐν γῇ ἐστὶν ὑμένιος, ἀλλὰ δείχνουσι καὶ ἑφαίνουσι κοινοὶ καὶ τῆς σαρκὸς αὐτοῦ δείχνουσι τῇ εὐαχρίᾳ, ἢν προτίθησι τοῖς πιστοῖς ο Χριστός,

ή πάντων ζωή καὶ ἀνάστασις.

5 Γνωρίζοντο δὲ πλέον <ά>πάντων τὸ θαυμάσιον τέμενος τοῦτον τὸν θεοῦ ἐνδιάπτημα πάντες πέπεπτον καὶ ἐν τῷ προφανεί ἐνδεικνύμενον τὸ ἄζωθεν, τεχνικὴν ἦπειραν ὑπερεχοῦς ἐπιτίμησεν ἐνθρόπισεν ἐν τοῖς δώμασιν ὑμένιος τῷ ἐπέγειος καὶ ὕμεναι καὶ τηρόμενος καὶ μαρτυρίας καὶ λατρείας θεοῦ ἐν ἐγκυμίατι ήπειρας τοῖς κατοικεῖσθαι, καὶ ἐν πνεύματι ἐστήριξας αὐτῶν,

ή πάντων ζωή καὶ ἀνάστασις.

As the Creator, the Lord and Master of all things, came unto His own, so we [claimed] Him as our own, for which reason indeed a temple is being inaugurated to serve Him as a dwelling, seeing that it is not right for the King to enter a rude cave.

This is why we have now consecrated the sanctuary of Wisdom as a manifestly divine palace for the honour and worship of the mystery whereby the world was saved through Christ:

THE LIFE AND RESURRECTION OF ALL

Now we can see actually fulfilled the word of inspired scripture: ‘But can God indeed dwell with man?’ as Solomon of old says, not doubting, but in amazement, referring enigmatically to the Incarnation of God as a localized reference; and so, by the agency of the Spirit, He sketched out in symbols what was to take place. For [by his own choice] He fenced himself around with the living temple of a virgin and was born ‘God with us’:

THE LIFE AND RESURRECTION OF ALL

Having once resided in flesh the Word consents, by the operation of the Spirit, to reside in temples built by hand, assuring His presence by mystical rites; and He who cannot be contained, nor even approached, by the whole universe lives by grace among mortals. And not only does the Heavenly One share a roof with those on earth, but he welcomes them as table-fellows and entertains them with the banquet of His Flesh, which is set before the faithful by Christ:

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And this wondrous precinct shall become known above all others as the most sacred residence of God, the one that manifestly exhibits a quality worthy of God, since it surpasses the whole of mankind’s knowledge of technology. Both [by its form] and function in God’s worship it is seen to be – yeah, proclaimed – a kind of heaven on earth, which God has chosen for His own habitation; and in the Spirit have You buttressed it, You:

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This sacred church of Christ visibly outstrips in glory even the firmament above, for it does not offer a lamp of merely sensible light, but the shrine of it bears aloft the divine illumination of the Sun of Truth and it is splendidly illumined throughout by day and by night by the rays of the Word of the Spirit, through which the eyes of the mind are enlightened by him [who said] “Let there be light,” God:

THE LIFE AND RESURRECTION OF ALL

In the beginning the firmament solidified in the midst of the waters, as holy scripture teaches, with a flowing substance, as it is believed to be, above it; it has its place among the stars and the shadows cast by clouds have not escaped. But here things are better and utterly wonderful: no flux, for the favour of God is the foundation on which rests the temple of God’s Wisdom, which in truth is Christ:

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A mystic vision of holy waters is conjured up by the spiritual thoughts that are lifted up in it. For these armies of the mind have flooded together in it from every part, soldiers in the uniform of liturgy guarding the mystery of the new grace; and the [detestable] clouds of human failings cannot hold their ranks, but are scattered by the prayers of fervent repentance, with the tears summoned hither as reinforcements, because all men are purified by Christ:

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By the gift of the Spirit, Who has made firm this church of Christ, we see spiritual luminaries fixed to the divine firmament of it: divisions of prophets and apostles and teachers, flashing with the lighting of their doctrines, and neither suffering eclipse nor waning nor [setting], but enlightening in the night of life those drifting about on the ocean of sin, which has been bereft of power by the Incarnation of Christ:
10. "The divinely inspired book tells that Moses of old, the man privileged to see God, inaugurated a Tabernacle of Witness and that he had examined the design of it mystically on the mountain, but because he was unable to teach through words the likeness of things beyond words, he had it executed by someone endowed with the wisdom of God. Bezalel, who used all kinds of skills to construct [what] had been described in symbols, according to the instructions of the God who had spoke:

As a painter sketches out a picture which has yet to be made, he made [the] gilded ark out of imperishable wood, an stored away in it the sacred tablets of the Law, and transported it from place to place, [and] wrapped it around with many-colored veils; but the ostensible object endowed [with these symbols] was not permanent, whereas the manifestation of grace is made known to all as being firmly planted and it has been established for eternity by Christ:

11. "As a painter sketches out a picture which has yet to be made, he made [the] gilded ark out of imperishable wood, an stored away in it the sacred tablets of the Law, and transported it from place to place, [and] wrapped it around with many-colored veils; but the ostensible object endowed [with these symbols] was not permanent, whereas the manifestation of grace is made known to all as being firmly planted and it has been established for eternity by Christ:

12. Solomon the far-famed, who had an overflowing heart, sings the praises of the temple in Jerusalem which he inaugurated of old and so splendidly adorned that it was his glory; and he summoned together the whole people of Israel to be spectators of his achievement. With sacrifices [and] in hymns [they solemnized] the inauguration and the sound of musical instruments accompanied the odes [with] a many-voiced harmony, for by such means [used they to] praise God:

13. Solomon the far-famed, who had an overflowing heart, sings the praises of the temple in Jerusalem which he inaugurated of old and so splendidly adorned that it was his glory; and he summoned together the whole people of Israel to be spectators of his achievement. With sacrifices [and] in hymns [they solemnized] the inauguration and the sound of musical instruments accompanied the odes [with] a many-voiced harmony, for by such means [used they to] praise God:

195 Palmer points out the pun.
That temple was commonly known as the Place of God, to which appeal was made by all; and the whole of Israel flooded to it under compulsion, driven together by the whip of the Law, for in it they used to make their offerings. But they [would] certainly have to give us the credit for surpassing them, for the very evidence of the senses demonstrates that this divine masterpiece transcends every[thing]; and its buttress is Christ:

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This house of God is indeed great and of splendid proportions, as we may also say, echoing Scripture, for it is not only held in honour by the assembly of a single nation, [as was] that of old, but it is the subject of excited comment and reverent awe as far as the fringes of the inhabited world. From every race under heaven they hurry together in it of their own choice, not by any kind of compulsion, so that even the unbelievers admit unequivocally that the one who lives in it is God:

THE LIFE AND RESURRECTION OF ALL

Here sacrifices of the mind in spirit and in truth, not in reeking smoke and streams of blood, are offered untiringly as an odour of sweetness unto God, the tears of prayers with godly fear and the melodies of psalms which prompt compunction, accompanied by the instruments of the Spirit, putting to sleep the demonic urges of the passions and [instilling] the temperate pleasure which leads to that salvation given to mankind by Christ:

THE LIFE AND RESURRECTION OF ALL

In this most sacred and most praiseworthy house we truly behold the eye of the whole truth. Therefore 'we shall be filled with His good things', as it is written, singing to God: 'Holy indeed is Your temple, marvellous [in] righteousness,' knowing it to be the expression of the liturgy of those on high. Here is the voice of joyfullness and salvation and the sound of those making festival in the Spirit, a sound composed in human souls by God:
Chapter 4: Hagia Sophia and Byzantium

18 Σὺ, σωτήρ, ὁ τεχθεὶς ἐκ παρθένου, διαφύλαξον τοῦτον τὸν οἶχον ἔως ἡς τὴς συντελείας τοῦ κόσμου, εἰς αὐτὸν δὲ οἱ σωματικοί προσεχέτεσαν πάντοτε:

Oh Savior, born of a virgin, preserve this house until the consummation of the world! May Your eyes be always turned towards it! Heed the cries of the servants of Your house and grant peace to Your people by banishing heresies and crushing the strength of the barbarians! Keep the faithful priest[s] and the Basileus safe and adorned with piety! And save our souls, since You are God:

ἡ πάντων ζωὴ καὶ ἀνάστασις.

5) Paul the Silentiary on Hagia Sophia (563)\footnote{Marie-Christine Fayant and Pierre Chuvin, eds., \textit{Paul le Silentiaire. Description de Sainte-Sophie de Constantinople} (Die: Éditions A Die, 1997), 98-105, 46-49. The translation here is largely based on Mango, but with some amendments.}

286 Πᾶς βροτὸς ἀγλαόμορφον ἐς οὐρανὸν ὄμμα τανύσας οὐκ ἔπει δὴν τέτληκεν ἀναγκασθῇ τραχήλῳ κόκλησιν ἀστροφίτων ἰδεῖν λευκάμα χορεῖς, ἀλλὰ καὶ ἐς χλοοῦσαν ἀστήγαγαν ὄμμα χολῆν, καὶ ὄνον ἀνθρώπινον ἰδεῖν ἐπόθησεν ἀναφορὰ καὶ στάχθην ἢμιόντα καὶ εὐδέιδεον σκέπας ὑπὸ ποσεῖ ταῦτα καὶ ἀμφίελεκτον ἑλαίην, ἀμπελον εὐθαλέεσσιν ἐπικλινθέσσαν ὀράμνοις καὶ χροσποὺ γλαυκάνθην ὑπὲρ πόντου γαλάξιν ἄνωτον καταλίθεσυ τοῖς ἐρετμοῖς.

No mortal, when he fixes his eyes on the glorious dome of heaven, can not withstand it long, carning his neck to watch upon the stars in their circular dance: rather, he looks to the grass-covered hill below, craving to see the flower-banked mountain stream’s cascade, ripe corn, the leafy shelter of the forest, the leaping flocks, the olive-tree’s winding stem, a vine with flowering tendrils bending towards it, and the calm blue gleam of the sea fretted by a sailor’s foam-sprayed oars

[...]

605 Λαοῦσον δὲ ἀνά τοῖχον ἐὕγιαραι δαῖδαλα τέχνης πάντων ἀστράπτουσιν. Ἀλλατερίως Ἀρκονὴν παρά τιτάνοι φάραγχι ἐλόχυους. Πολυμήτθον δὲ μετὰλλαν ἀμιονὶ γραφιδέσσαν ἵσαιεται ἐν γὰρ ἕκεινη τετρατομίς καίεσσαι καὶ ὀκτατόμίς νόσηες.

Upon the carved stone wall curious designs glitter everywhere. These have been produced by the quarries of sea-girt Proconnesus. The joining of the cut marbles resembles the art of painting for you may see the veins of the square and octagonal stones meeting so as to form devices: connected in this way, the stones imitate the glories of painting.

[...]

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Before one comes to the glitter of the cut mosaic, the mason, weaving together with his hands thin slabs of marble, has figured upon the walls connected arcs laden with fruit, baskets and leaves, and has represented birds perched on boughs. The twining vine with shoots like golden leaves, and has represented birds perched on boughs. Before one comes to the glitter of the cut mosaic, the mason, weaving together with his hands thin slabs of marble, has figured upon the walls connected arcs laden with fruit, baskets and leaves, and has represented birds perched on boughs. The twining vine with shoots like golden leaves, and has represented birds perched on boughs.

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Yet who, even in the thundering strains of Homer shall sing the marble meadows gathered upon mighty walls and spreading pavement of the lofty church? Mining [tools of] toothed steel have cut these from the green flanks of Carystus and have left the speckled Phrygian stone, sometimes rosy mixed with white, sometimes gleaming with purple and silver flowers. There is a wealth of porphyry stone, too, besprinkled with little bright stars that had laden the river-boat on the broad Nile. You may see the bright green stone of Laconia and the glittering marble with wavy veins found in the deep gullies of the Lasian peaks, exhibiting slanting streaks of blood-red and livid white; the pale yellow with swirling red from the Lydian headland; the glittering crocus-like golden stone which the Libyan sun, warming it with its golden light, has produced on the steep flanks of the Moorish hills; that of glittering black upon which the Libyans yield, not from some upland glen, but from the level plain: in parts green not unlike emerald, in others of a darker green, almost blue. It has spots resembling snow next to flashes of black so that in one stone various beauties mingle.

Before one comes to the glitter of the cut mosaic, the mason, weaving together with his hands thin slabs of marble, has figured upon the walls connected arcs laden with fruit, baskets and leaves, and has represented birds perched on boughs. The twining vine with shoots like golden ringlets winds its curving path and weaves a spiral chain of clusters. It projects forward so as to overshadow somewhat with its twisting wreaths the stone that is next to it. Such ornament surrounds the beauteous church. And above the high-crested stone, too, besprinkled with little bright stars that had laden the river-boat on the broad Nile. You may see the bright green stone of Laconia and the glittering marble with wavy veins found in the deep gullies of the Lasian peaks, exhibiting slanting streaks of blood-red and livid white; the pale yellow with swirling red from the Lydian headland; the glittering crocus-like golden stone which the Libyan sun, warming it with its golden light, has produced on the steep flanks of the Moorish hills; that of glittering black upon which the Libyans yield, not from some upland glen, but from the level plain: in parts green not unlike emerald, in others of a darker green, almost blue. It has spots resembling snow next to flashes of black so that in one stone various beauties mingle.
The roof is compacted of gilded tesserae from which a glittering stream of golden rays pours abundantly and strikes men’s eyes with irresistible force. It is as if one were gazing at the midday sun in spring, when he gilds each mountain top.

You might say, seeing this [church], that it is not the work of human hands, but that a divine power above our own has formed its beauty.

The atrium of the church is splendidly fashioned: for slabs of white marble, gleaming bright and cheerful, occupy the whole façade, and by their evenness and smoothness and close fitting they conceal the setting of one to another and the juncture of their edges, so that they suggest to the beholder’s imagination the continuousness of a single stone with, as it were, straight lines ruled on it – a new miracle and a joy to see. Wherefore, arresting and turning towards themselves the spectator’s gaze, they make him unwilling to move further in; but taking his fill of the fair spectacle in the very atrium, and fixing his eyes on the sight before him, the visitor stands as if rooted to the ground with wonder. Legends proclaim the lyre of Thracian Orpheus, whose notes stirred inanimate things. If it were our privilege also to erect truth into legends and make it awe-inspiring, one might say that visitors to the atrium were turned with wonder into the form of trees; so firmly is one held having seen it once.

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5. But when with difficulty one has torn oneself away from there and looked into the church itself, with what joy and trepidation and astonishment is one filled! It is as if one had entered heaven itself with no one barring the way from any side, and was illuminated by the beauty in all forms shining all around like so many stars, so much is one utterly amazed. Thenceforth it seems that everything is in ecstatic motion, and the church itself is circling round. For the spectator, through his walking about in all directions and being constantly astir, which he is forced to experience by the variegated spectacle on all sides, imagines that his personal own is transferred to the object.

The rest of the church, as much as of it as gold has not overspread or silver covered, is adorned with many-hued marble, a surpassingly fair work. The pavement, which has been fashioned into the forms of animals and other shapes by means of variegated tesserae, exhibits the marvellous skill of the craftsman, so that the famous Pheidias and Parrhasius and Praxiteles and Zeuxis are proved in truth to have been mere children in their art and makers of figments. Democritus would have said, I think, on seeing the minute work of the pavement and taking it as a piece of evidence, that his atoms were close to being discovered here actually impinging on the sight.

8) Two churches built by Basil I (867-886) in Constantinople

a) the Nea Ekklēsia

He built a holy and beautiful church in which art, riches, an ardent faith and a bountiful zeal were all combined and the most beautiful materials were gathered together from every quarter which have to be seen (rather than heard of) to be believed. This church, like a bride adorned with pearls and gold, with gleaming silver, with the variety of many-hued marble, with compositions of mosaic tesserae and clothing of silken stuffs, he offered to Christ, the immortal Bridegroom.

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Its roof, consisting of five domes, gleams with gold and is resplendent with beautiful images as with stars, while on the outside it is adorned with brass that resembles gold. The walls on either side are beautified with costly marbles of many hues, while the sanctuary barrier is enriched with gold and silver, precious stones and pearls.

As for the pavement, it appears to be covered with silken stuffs of Sidonian workmanship: to such an extent has it been adorned all over with marble slabs of different colours enclosed by tessellated bands of varied aspect, all accurately joined together and abounding in elegance.

b) the Kainourgion

It is supported on sixteen columns standing in a row, eight of them being of green Thessalian stone, while six are of onychite (as it is proudly called) decorated by the stone-carver with the shape of the vine and, within the latter, the forms of various animals. The remaining two columns are likewise of onychite, but they have been carved into a different configuration in that the smoothness of their surface has been furrowed by twisted lines; in this way did the craftsman choose to decorate them, seeking, as he did, beauty and delight through variety.
9) Leo VI (“Leo the Wise”, 886-912) describes two pavements

a) church in the monastery of Kauleas, Constantinople

It is paved with white slabs [forming] a continuous translucent [surface], uninterrupted by any other colour: the craftsman has preferred this pure splendour to a variegated composition such as is often to be seen in pavements. However, a boundary, as it were, made of a stone of a different colour, surrounds the white surface, and by slightly varying the spectacle, makes the white translucence, pleasing as it is, even more agreeable... Now the [structure] which is above the beautiful pavement and forms the roof is raised in the shape of a half-sphere.

[...description of figurative scenes...]

The remainder of the church, that is, as much as is not covered with holy figures, is adorned with slabs of many colours. These have a beauty that corresponds to that of the rest of the edifice.

b) church built by Stylianus Zaoutzas

Such, then, are the upper beauties of the church, and they are all made of mosaic smeared with gold. But what of the lower part? Four columns adorned with the green colour, such as the earth puts forth at the end of winter... support the pendent arches. The ground is covered all over with the hues of various flowers. In places the surface is traversed by white [strips], in others the white is framed by a composition of other hues, consisting of multicoloured slabs cut into tesserae, and this, in turn, is surrounded by purple slabs as if by rivers; the latter, too, are enclosed by a contexture imitating the different flowers of the earth.

10) Constantine Rhodius on the Apostoleion (931/944)

With great and such copiousness of artifices and considered design either Anthemius or Isidore endowed the splendid home of the Apostles from one end to the other.

Accordingly they dressed it with boundless forests of many-colored marbles and the shimmer of foreign minerals, clothing it and putting it together finely like a bride with golden fringes or a gold-gleaming bridal chamber made beautiful with flashing signals.
The stones and pearls that decorate the temple come from almost the entire world, from India to Libya to Europe. Here, amongst the celebrated stones of Asia you may admire great piers from Phrygia, roseate columns from Docimium, white-purple slabs from Carya, and those slabs the colour of wax from Galatia. Amongst the many stones that Europe and Greek castles produce you see the marbles that the cliffs of Euboean Carystos nourish and those that come from the gloomy vale of Laconia which resemble the leaves of rue. Here you see towering the verdant Thessalian columns that imitate emerald, and shining slabs of Aquitanian stone. Among the stones that Libya sends, the wild \textit{fierc} nourish and the famous \textit{un di} Carthage. The stone mottled with furious snakes that copy the scales of terrible dragons and for all foreign beauty spills and fills. The Egyptian Nile sent so that the sea nurtures the shimmering slabs of purple. You may admire here the variegated sardonyxes of India, here you see white pearls from the Eritrean sea. Proconnesus has sent next to these the slabs that you see set in the floor. Fertile Cyzicus has sent other slabs of beautiful varipainted slabs and you may see the snowy ones from Paros.

I am not able to say whence and how and from what kind of rock these columns, which are foreign both in material and complexion, came to the House of the Apostles. Some alien and exotic nature brought them forth from strange and foreign stone. You see in two the colours, as the marble-cutters say, of a hundred stones. Each one of these is almost a foreign meadow filled with flowers which vaunt an infinite number of buds. And when you wonder at them, you would say that the pomp of all plants resides and pullulates in them or that a mixture \textit{torma} of glittering stars circulates, which the Galaxy unveils, so beautiful are they and of such strange aspect. If they \textit{ergono} in the eastern light, one occupies the right and the other holds the left side...

11) Nikolaos Mesarites on the Apostoleion (1198/1203)\textsuperscript{203}

\textsuperscript{203} 37.2-6: Downey, “Nikolaos Mesarites,” 890.
The stoas [arms of the church]... have foundations in the form of a cross, and face towards the four quarters of the earth...

And like a square-cut stone or a geometrical outline, it [the central hall] binds the other four to itself and binds them to each other as well, and stands there as a kind of mediator and a reconciler of those which formerly were separated from each other, in this, I believe, imitating the mediator between God and man, who is portrayed in the midst of it [on the dome of the crossing], Christ, truly the square-cut stone...

The whole church, for the sake of strength and beauty, is bound round about, from the pavement to the summit, by three girdles, one might say, woven out of stone, placed at symmetrical intervals from each other, which it is the custom for those who are learned in these matters to call string-courses. In the remainder of the space, down to the pavement, the whole wall is covered with many-colored stone.

The craftsmen in finishing the stone brought it to such thinness that the wall seems to be covered with many-colored woven cloths.

Indeed the stone bursts forth into such a shimmer that its glistening surface vanquishes any flower. Thus astonishingly and completely surpassing is the native excellence of the craftsman, who strove to add beauty to nature.

It is supported, for the rest with columns which begin and, so to speak, sprout up out of the pavement and come to an end at the dressing of the stone which is over the faces of the colonnades.

For the colonnades which support the whole Church are twelve in number and the columns which support these colonnades are close to seventy, a detail arranged by the architect not without purpose, I think, but in order that this might be indeed a living church of Christ, supported by colonnades equal in number to the Disciples of Christ.

12) Michael the Deacon on the marbles of Hagia Sophia (c. 1140/1150)

204 Mango and Parker, “Twelfth-Century Description,” 237, 239 (ll. 73-78, 156-74).
but what manner of stonework is this that has fastened around the building, striving with its variegated colouring and smoothness against the gold, shining because of its smoothness and, because of its diversified bloom having something that surpasses even the gold, which is one colour?

As for the sides – all is gold, all flowering stones separated from each other by little partitions. These stones nature has dipped in a fast and full-bodied dye, and art, by polishing their roughness, has almost turned them into mirrors. Thus has the stone, which is hard by nature, yielded, and, having emerged from the earth, it sparkles brilliantly and agreeably to the eyes. It paves the floors and has been fixed round the walls, in many respects convicts the flowers of being easily withered, since it is also cut from the mines of the earth, but preserves its flowery dye even after severance from its own root. One of these stones even puts on the guise of living flesh, and whitish in colour, displays all over itself what look like gaping veins of blood. A statue of such material would be a plausible counterfeit of a man.

The floor is like the sea, both in its width and in its form; for certain blue waves are raised up against the stone, just as though you had cast a pebble into water and had disturbed its calm. This sea has broken out into a gulf to eastward, and one wave having been, as it were, piled up against its predecessor, and another against the next (for thus also does it happen during floods, the ever-approaching wave never allowing itself to be broken by the contrary wind), the sacred Sphendone has been formed into steps, and one step is raised up above another, and the highest steps which curve in billows have been flooded over by an effusion of silver worth many talents.

13) Mehmet the Conqueror visits Hagia Sophia, 1453

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While he was visiting the serried palaces, the wide streets and the markets of that ancient metropolis, that vast fortress, the pâdishâh was overcome by a desire to visit the church which carries the name of Aya Sofya, and which is a prodigy of paradise:

“If you wish to contemplate paradise, visit Aya Sofya.
Aya Sofya is the highest circle of Paradise”

It is a solid edifice, and so massive a construction that one must be immune to vertigo to reach the summit, which resembles heaven. Nothing similar exists in the whole world, and one must confess that nothing similar has ever been constructed on this earth. Yet, as is the fate of all created things, the buildings that surrounded it have now fallen into ruin, just as the envied palaces of those upon whom fate once smiled are now laid low.

“The heart of the edifice teeters upon ruin from sheer grief.
Oh woe! The good fortune that once looked over it has fallen asleep”

And next to the ruins of this building, next to those constructions that are now reduced to gardens of stone, not even a vestibule is now left on its feet: only the dome has remained erect. But what a dome! A dome that attempts to equal the dome of the nine heavens. A great architect has revealed in this, his work, all the power of the art of engineering. He enlarged the interior by means of hemi-domes placed on top of each other, of acute and obtuse angles, of arches which stand over the windows – arches which resemble the brows of those who fascinate the heart, which have nothing of their like – of stepped roofs. He made [this interior] so large that it could easily hold fifty thousand people. To ensure the elegance of the inclined planes, they incorporated a waving fabric of glass tesserae of the most varied colours, a fabric which made up compact surfaces of gilt glass and the mind cannot succeed in understanding the art of these able masters. They paved the earth with a raw marble of many colours, in such a way that, if one looks at the Empyreum [dome] it seems to be a sky full of stars and, if one looks at the pavement from the Empyreum, [it seems] a sea in a storm. They dressed the parts of the wall near the pavement with a subtle fabric of polychrome marbles. Within it one finds a whole series of figures that provoke exclamations of wonder from observers. Those masters have observed with great ability the rules of carving: the slabs match so perfectly that they create both human and non-human figures [i.e. plants, trees, etc.]. And in the dome, in front of the centre of the church, they have placed the figure of a man that commands reverence, designed with glass tesserae of gold and other colours. From whatever part that one looks he seems to turn his face in that same direction.

The pâdishâh of the world, after admiring the artworks and the marvellous and extraordinary statues which are found in the concave planes, decided to ascend to the convex plane [the outside of the dome]. In this way he ascended like the Divine Spirit ascended to the heaven of the Sun. From the apertures which opened into the galleries of the intermediate floors he stopped to admire the pavement which resembles a petrified sea. And so he reached the summit of the dome.
Chapter 5
Walking on Water: Cosmic Floors in Antiquity, Byzantium, Christendom and Islam

When Hagia Sophia was completed and dedicated with great fanfare shortly after Christmas 537, the Emperor Justinian could rightly say that he had outdone Solomon. Such was the splendor of the completed vessel that God Almighty might be tempted to descend among men and dwell within it. Justinian’s expenditure on the church was fabled: it was said that he had spent forty thousand pounds of silver on the sanctuary screen alone. No expense was spared on its construction, its gilt tesserae, liturgical furniture, lamps, silk hangings, chalices and pattens, or its acres of polychrome revetment.

The glaring exception seemed to be the point where the whole construction of faith met the earth’s surface, the floor. Here, there were no vermiculated mosaics, no rainbow imbrications, no intricate tessellations. Such artistry was reserved for the walls or vaults while the floor was simply paved with plain rows of Proconnesian-marble flagstones, compartmented by thin green stripes, with any eye-catching and multicolored paving screened off behind the sanctuary barrier.

Yet, the wonder of visitors was undiminished, in the course of more than a millennium, observer after observer would report that the combined undulations of its closely-fitted slabs suggested that the entire floor was a “frozen sea.” This chapter will demonstrate that the perduration of this topos betrays neither flagging fantasy nor want of invention, but rather the enduring propriety of an extraterrestrial image that the faithful could read into the shifting matter below their feet. As will become clear, by
“walking on water,” they were reminded of the world’s watery genesis, its apocalyptic destiny in a glacial purity and that, all along, God’s throne lay “above the waters” gliding over a celestial sea.

Instrumental in reporting and hypostasizing this concept was Proconnesian marble. As we shall see, although this image-less paving preordained no specific narratives, its fundamental situation and the reception of its materiality virtually predestined a proper range of reference.

The options

The menu of tradition was extremely rich, for floors had defied being simple moisture-barriers for millenia. They had been venues of artifice and fantasy for centuries. The mosaic emblemata (prefabricated easel-pieces) that were frequently found at their centers competed with the illusions of painting, and entire floors had been given over to illusion since at least the famous Unswept Floor of Sosos of Pergamon (early-second century BC) with its simulated refuse lying above the floor surface. Conversely, any number of floors with scenes of swimming fish implied the surface was only a film of particularly clear water.¹ Even the counter-changed, geometric, and carpet-weave patterns of aniconic floors might autonomously subvert surface to imply a plunging abyss below one’s feet.²

¹ Pliny HN 36.184. For the techniques: Vitr. De Arch. 1.7.

But the paving materials themselves were also anything but pedestrian. Roman conservatives had been scandalized by the sight, first of Egyptians, and then their own compatriots, trampling rich materials like Numidian marble and agate underfoot. Over time familiarity bred acceptance, then desire, and such floors became the norm in townhouses and villas. Already Ovid writes more neutrally of a marble pavement as a cosmetic over the black earth. Much later, Christian patrons did have qualms about what they put underfoot, and the more austere church fathers continued to fume about extravagance, but they too would eventually welcome the artifice of paving earthy squalor. Allegorically-minded interpreters were happy to enjoy the symbolic potential of such surfaces as much as they did any other part of the building.\(^3\) In the West, Bede (c. 729-31) commented that the well-made church floor represented Christianity’s integration of all the earth’s peoples, and in the eyes of Sicardus (c. 1200) these hallowed pavements also allegorized the trampled masses whose labors underpinned the church.\(^4\)

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\(^3\) Ovid, in the context of female cosmetics, writes “black earth lays hidden under set marble” (“Nigra sub imposito marmore terra latet,” *Medic.* 8). Theodosius II (427) and the Quinisext Council (692) prohibited the representation of crosses on pavements lest they be trodden upon. Conversely, in 402-7 the marble revetment from the Temple of Zeus Marnas at Gaza was reused “for paving the open space in front of the [new cathedral] so that they might be trodden on not not only by men, but also by women, and dogs, and pigs, and cattle;” Mango, 36, 31.

\(^4\) *Mitrale seu de officiis ecclesiasticis summa*, Lib. I, cap. iv; *PL* 213, col. 20A: “pavimentum, quod pedibus calcatur, vulgus est, cuius laboribus Ecclesia sustenatur.” But, on luxury homes, Gregory of Nyssa says: “Who call tell of the house’s floors resplendent with various colored stones which provide pleasure for one’s feet? This is not necessary for living, but greed is still not satisfied despite its search for such useless things;” Homily III, *In Ecclesiasten Solomonis*, 653D. The Council of Arras (1025) also states that “The Lord enters His holy Church in a spiritual way, delighting not in varied pavements, but in the assembly of the faithful;” Giovanni Domenico Mansi and Philippe Labbe, eds., *Sacrorum conciliorum nova et amplissima collectio* (Graz: Akademische Druck- u. Verlagsanstalt, 1960), 21: col. 437 C.
Early imperial church foundations in the West, like St. John in Lateran or St. Peter’s, seem to have borrowed their paving schemes, like their building-type as a whole, from civic or palace basilicas and in Rome, in fact, geometric patterns were an almost inviolable rule. But in the Eastern Empire it was another story. Extremely rich floor mosaics are found in the fourth-century churches of Palestine, Jordan and Syria, abounding in personified seasons and the creatures of earth and sea. Despite a gradual drift towards puritanical aniconism in church floors from the mid-fourth century to the early fifth century, the divergent tradition of nature imagery enjoyed a measured revival in the fifth and sixth centuries. Under Justinian there even seems to have been a full-blown renaissance of the medium, a reclamation of the whole decorative repertoire that had been inherited from antiquity, whether the new floors were laid in churches or Justinian’s own palace. In this context, the plain floor of Hagia Sophia purposefully

5 Federico Guidobaldi and Alessandra Guiglia Guidobaldi, *Pavimenti marmorei di Roma dal IV al IX secolo*, (Vatican City: Pontificio Istituto di archeologia cristiana, 1983), passim, esp. 19-58. The only exception seems to be S. Pudenziana (see below).


renounces both figuration and opulence. Large slabs of marble did offer a greater shimmer than would any mosaic pattern and, as we shall see, the undulating patterns that arose out of their precision-fitting suggested a greater, overall image, that that the entire floor was a frozen sea (fig. 5.1).

Floors as “Seas” East and West

When the imperial marshal Paul the Silentiary recited his famous ekphrasis on the spot in 563, he compared the solea and ambo, the access-gangway and pulpit that pushed out into the nave (fig. 5.2), to a wave-lashed isthmus in a stormy sea and ventured that those traversing the church found a safe harbor only in the liturgical destination of the sanctuary (see Appendix A.1). The nautical motif recurs in the folkloric account of the ninth-century, the Narratio, which commends the pavement as “like the sea or the flowing waters of a river,” and the ekphrasis of Michael the Deacon (c.1140/1150) more extravagantly returns to the theme of a sea dotted with islands, one of which is the ambo (see Appendix A.2).8 The Narratio also describes the paving as traversed by the rivers of Paradise, meaning the bands of Thessalian marble (verde antico) that compartment the

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Although this parallel tradition was disseminated as far as London and Russia it proved comparatively shorter-lived. Even Mehmet the Conqueror, on the day of Constantinople’s fall (29 May 1453), so admired this “sea in a storm” that he took a sword to a disobedient soldier trying to prise a slab from the floor (Appendix 4.13). Cafer Çelebi’s slightly later encomium of the same building (1493/4) also extolled its marble waves, as would several Ottoman poets after him, while the Florentine

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9 When the church was refurbished (558-562), “for the floor [Justinian] was unable to find slabs of such great size and variety, and so he sent Manasses [or Narses]... to Proconnesus to cut slabs that would denote the earth, while the green ones signify the rivers that flow into the sea.” But the same text also asserts earlier that the whole floor is a sea crossed by the rivers, although this is not incompatible with the topography of Cosmas Indicopleustes and others, who thought the rivers of paradise poured across the Ocean like aqueducts (cf. Psalms 23:2: “For it was He who founded it upon the seas / and planted it upon the rivers beneath.”). The pavement strips are also called phinai, which in this context might well be translated as “yardlines.”

See the commentary on the Narratio in Majeska, “Notes,” 299-308; and the text redactions in Evangelia Vitti, ed., Die Erzählung über den Bau der Hagia Sophia in Konstantinopel: kritische Edition mehrerer Versionen (Amsterdam: A. M. Hakker, 1986), 462.10-16, 67.5-8 (a); 486.2-4, 487.7-11 (x); 503.16-20 (φ); 561.1-5 (ν); 578.23-28 (ξ); 598.14-21 (f); 616.23-25 (q).

The other conspicuous exception to Proconnesian in the nave is the huge rota (or omphalion) with orbiting rotae which is a much later insertion, c. 1200: Alfons Maria Schneider, Byzanz. Vorarbeiten zur Topographie und Archäologie der Stadt (Berlin: Archäologisches Institut des Deutschen Reiches, 1936), 34-37.


It may also be suspected that the erroneous tradition that Hagia Sophia sat over vast cisterns, arose from the same cherished perception: Lethaby and Swainson, Sancta Sophia: 196-97; George P. Majeska, Russian Travelers to Constantinople in the Fourteenth and Fifteenth Centuries, (Washington DC: Dumbarton Oaks, 1984), 234. Some visitors even claimed to have visited them: Dagron, Constantinople: 282-83. The floor’s aqueous image may also have instigated the tradition, reported in the Narratio, that the church was flooded during the reconstruction of the dome in 563: Mango, 102; William R. Lethaby, Architecture, Mysticism and Myth (London: Percival & Co., 1891), 176-77.
Bernardo Bonsignori (1498) is perhaps the last westerner to repeat the observation, comparing the surface to watered silk, before the pavement submerged under Muslim prayer-mats.12

Within Constantinople, the Apostoleion (c. 536-550) had an almost identical floor,13 and the rippling influence of these Justinianic floors can still be observed in the “pools” that nostalgically fill later Byzantine churches like the Chora (fig. 5.3; Kariye Camii, c. 1316-1321), the Parekklesion of the Theotokos Pammakaristos (Fethiye Camii, c. 1310-14) and perhaps the eleventh-century Pantanasse church, also in Constantinople

12 “The pavement is completely made from marble slabs just like St. Peter’s in Rome, but these are sawn and then bedded and placed in such a way that the whole floor seems covered with ciambellotti, so well does it display those waves” (“el pavimento è tutto di lapide di marmo chome San Piero di Roma, ma seghate e poi murate et adaptate in modo che tutto pare coperto di ciambellotti tanto bene dimostra quelle onde.” Letter to Niccolò Michelozzi September 1498; Biblioteca Nazionale Centrale Firenze, MS Magl. XIII, 93, f.18r; Eve Borsook, “The Travel of Bernardo Michelozzi and Bonsignore Bonsignori in the Levant (1497-1498),” Journal of the Warburg and Courtauld Institutes 36 (1973): 173 (note 95).

Bonsignori characterizes this waviness with the word ciambellotto, said to mean a “tela fatta di pel di capra, alcuni lo dicono in latino capripilium, e val fatto a onde. Tela undulata,” Vocabolario degli Accademici della Crusca (Venice: Giovanni Giacomo Hertz, 1686), 192. However, the term is also frequently used about silks: Achille Vitali, La moda a Venezia attraverso i secoli: lessico ragionato, (Venice: Filippi editore, 1992), 109-11; kind reference of Nicholas Penny. Thus, Casola (in 1494) praises the “zambellotti de ogni colore e fineza” to be found in Venice; Giulio Porro-Lambertenghi, ed., Viaggio di Pietro Casola a Gerusalemme, tratto dall’ autografo esistente nella Biblioteca Trivulzio (Milan: P. Ripamonti Carpano, 1855), 8. The blue shawl worn by Mantegna’s Virgin in the Accademia Carrara, Bergamo, is an excellent example of such caerulean silks.

13 Constantine Rhodius (931/944) records that “Proconnesus has sent… the slabs that you see set in the floor” (πλάκας δὲ Προκονήνης ἡ γέιτων φέρειν / ἅ ὡς εἰς πάτων γ᾿ ἐπτάθησαν οἱ λιθοζόι) of the Apostoleion (536-546): Émile Legrand and Théodore Reinach, eds., Description des œuvres d’art et de l’Eglise des Saints Apôtres de Constantinople: poème en vers iambiques par Constantin le Rhodien, publié d’après le manuscrit du Mont-Athos (Paris: E. Leroux, 1896), 56, ll. 670-71. Nikolaos Mesarites (1198/1203) comments, “the whole floor of the church is drawn up in four squares [the four arms of the church], which are separated from one another by a curved outline, and is paved with white marble” (Τὸ δὲ τοῦ ναοῦ σύμπαν δάπεδον τέτρασι μὲν τετραγώνως περιλαμβάνεται, κατὰ πολλὰς ἀπ’ ἄλλης διεστρέφει τὴν περιφέρειαν, κατέστρωται δὲ λίθοις λευκοῖς), Glanville Downey, “Nikolaos Mesarites: description of the Church of the Holy Apostles at Constantinople,” Transactions of the American Philosophical Society 47, no. 6 (1957): 890, 914.

Hagia Euphemia en to Hippodromu was paved with large slabs probably divided by transverse strips like Hagia Sophia: Rudolf Naumann and Hans Belting, Die Euphemia-Kirche am Hippodrom zu Istanbul und ihre Fresken (Berlin: Gebrüder Mann, 1966), 36-37, 46-47, and plan; Guiglia Guidobaldi, “Note,” 404-06, 407.
but now destroyed.\textsuperscript{14} There were probably others, but today the only surviving Byzantine church that shares with Hagia Sophia the distinction of a floor an entirely Proconnesian floor is the Acheiropoietos in Thessaloniki (fig. 5.4), a mid-fifth century structure, but one whose paving could date from the mid-seventh.\textsuperscript{15}

However, the “sea-floor” had already traveled west to fill the naves and crossings of Italian churches, in a variety of techniques. Highly descriptive sea-scenes had featured in the floors of the early fourth-century double basilica of nearby Aquileia (fig. 5.8)\textsuperscript{16} and S. Pudenzia, Rome (c. 384-399).\textsuperscript{17} Abstracted versions also persisted, as in


The Anonymous Armenian Pilgrim (1375/1434) says “And the church is beautiful, so is the church’s floor; its name is Pantanassa. A marble \textit{facet} is made like the waves of the sea,” Sebastian Brock, “A Medieval Armenian Pilgrim’s Description of Constantinople,” \textit{Revue des Études Arméniennes} 4 (1967): 87, 90, 95. Brock notes that the Armenian word translated “facet” is otherwise unknown, but Majeska assumes the floor must be intended: Majeska, \textit{Russian Travelers}, 377. However, if the word is a neologism from another tongue, its similarity to “façade” gives pause for thought.

\textsuperscript{15} Charles Diehl, Marcel Le Tourneau, and Henri Saladin, \textit{Les monuments chrétiens de Salonique}, (Paris: E. Leroux, 1918), 35-58, plates 3-12. Synopsis of the dating in Eftychia Kourkoutidou-Nikolaidou, \textit{Acheiropoietos. The Great Church of the Mother of God} (Thessaloniki: Institute for Balkan Studies, 1989). The remodeling (c. 620) is generally thought to have been limited to the superstructure. The Proconnesian slabs (1 x 2.4 m) were confined to the nave, as areas of \textit{opus sectile} paving survive in the south aisle: W. Eugene Kleinbauer, “Remarks on the Building History of the Acheiropoietos Church at Thessaloniki,” in \textit{Actes du X\textdegree Congrès international d’archéologie chrétienne, Thessalonique, 28 septembre-4 octobre 1980} (Vatican City: Pontificio Istituto di Archeologia Cristiana, 1984), 2: 241-57, esp. 43.


\textsuperscript{17} Color photograph in Antonio Pettrignani, \textit{La Basilica di S. Pudenziana in Roma secondo gli scavi recentemente eseguiti} (Vatican City: Pontificio Istituto di Archeologia Cristiana, 1934): 46, also figs. 26-27. The pavement is attributed to the church foundation (and possibly the campaign of Siricius, 384-399) in: Federico Guidobaldi, “Osservazioni sugli edifici romani in cui si insediò L’\textit{Ecclesia Urbis},” in \textit{Ecclesiae...
the crypt floor of S. Savino (c. 1120/1130) at Piacenza, where zodiacal roundels bob about in a zigzag sea, possibly inspired by Hagia Sophia’s book-matched floor but populated by leaping fish, mermaids and sirens (fig. 5.9). Mosaic waves also lapped the floors of eleventh- and twelfth-century Venetian churches like S. Zaccaria, and SS. Maria e Donato on Murano (1141; fig. 5.10), albeit in the disguise of interlinked crescent-shaped shields (or *peltae*). This particular convention had already arrived in Grado, the seat of the Venetian patriarchate until as late 1451, in the late sixth century: in the nave of S. Euphemia (579), ranks of *peltae* stream towards the altar, wingtip-to-wingtip but facing in alternate directions (fig. 5.11). Overall these “painted marbles

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concealing the squalid earth” merge into a ripple effect so evocative of waves that one historian, Sergio Tavani, has even compared the pattern with the furrowed surface of a tide-swept beach (fig. 5.12). As it happens, and unbeknownst to Tavani, in 1211 a German visitor to a crusader palace in Beirut had voiced the same thought when he admired:

a fine marble pavement that so well feigns water stirred by a light wind that, whoever steps over it, seems to be wading, since they leave no footprints above the sand depicted there

More particularly, the Proconnesian “sea-floor” had also migrated to occupy the floors of two of the most ambitious churches built in Italy during the High Middle Ages, the Abbey church of Montecassino and the palatine chapel of S. Marco, Venice. At

20 The inscription on the pavement begins: “Atria quae cernis vario formata decore / squalida sub picto caelatur marmore tellus / longa vetustatis senio fuscaverat aetas…” (“The hall you see adorned with variegated decoration, [and] below the painted marble is hidden the squalid earth, long time had obscured [it] with the decrepiitude of old age;” CIL V, I, 149). Cf. Andrea Carlini, “Nota sull’iscrizione musiva eliana nella basilica di Sant’Eufemia,” in Grado nella storia e nell’arte (Udine: Arti Grafiche Friulane, 1980), 351-54. This passage is normally interpreted to refer to a pre-existing terracotta floor, but “tellus” must refer to the earth itself.


Montecassino (1066-71) the “sea” was covered over in 1725-29 and eradicated by Allied bombing in 1944, but even its presence in an eighteenth century engraving (fig. 5.5) has gone unnoticed because two large intarsiated panels run across it like a carpet runner (presumably in deference to the longitudinal axes of the western basilical liturgy).

The floor of S. Marco survives. Laid sometime between 1110 and 1150, it pullulates with tessellated whorls and quincunxes that figure astral geometries, though even these shifting patterns could be considered seas, as a near-contemporary description of a similar pavement observes: “what is spread on the floor, and what clothes the whole space like a dress worked in colors might at first be called a sea, which, moving on all sides in the gentlest waves, is suddenly petrified.” However, the jeweled waves of S. Marco only accentuate the hiatus of massive Proconnesian slabs under the crossing. These slabs, which were quarried specially for the occasion, have

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23 Ironically most of the floor except this area was brought to light by the bombing: Angelo Pantoni, Le vicende della basilica di Montecassino attraverso la documentazione archeologica, (Montecassino: Badia di Montecassino, 1973), 101-37, 80-93. Cf. Herbert Bloch, Monte Cassino in the Middle Ages, 3 vols., (Cambridge MA: Harvard University Press, 1986), 44-52. In the interior reconstruction by K. J. Conant this “sea” would have lain behind the choir screen and before the High Altar: Bloch, Monte Cassino, 3: fig. 27.

24 Nicephoros Kallistos Xanthopoulos (c. 1256 – c. 1335) on a floor in the Palace of Andronikos Palailogos the elder (1282-1328), Constantinople: Jean Paul Richter, Quellen der byzantinischen Kunstgeschichte. Ausgewählte Texte über die Kirchen, Klöster, Paläste, Staatsgebäude und andere Bauten von Konstantinopel (Vienna: C. Graeser, 1897): 368, no. 980. Nikephoros was a close associate of Theodore Meteochites, who had laid his own “sea” in the Chora church: Mary Cunningham, Jeffrey Featherstone, and Sophia Georgiopoulou, “Theodore Meteochites’ Poem to Nikephoros Kallistos Xanthopoulos,” in Okeanos. Essays Presented to Ihor Sevcenko on his Sixtieth Birthday by his Colleagues and Students, ed. Cyril Mango et al. (Cambridge MA: Ukrainian Research Institute, Harvard University, 1983), 100-16

25 Farioli Campanati cites loosely comparable paving at Hosios Lukas, the church of Sagmata (c. 1105) and the Church of the Dormition at Nicea (after 1065): Raffaella Farioli Campanati, “Il pavimento di San Marco a Venezia e i suoi rapporti con l’Oriente,” in Storia dell’arte marciana: i mosaici, ed. Renato Polacco (Venice: Marsilio editori, 1997), 12. The juxtaposition of a Proconnesian field under a crossing with more intricate opus sectile patterns elsewhere in the church also occurs in the south church at Koutsovendis (c. 1090): Cyril Mango, Ernest J. W. Hawkins, and Susan Boyd, “The Monastery of St. Chrysostomos at Koutsovendis (Cyprus) and Its Wall Paintings. Part I: Description,” Dumbarton Oaks Papers 44 (1990): 68. Large Proconnesian slabs also adorned the crossing of the church built by Alexius Apocacus at
been collectively known as “il mare” (the sea) since at least the seventeenth century, but the tradition is indubitably much older (figs. 5.6-7).26

The island quarries of Proconnesian marble were within easy seafaring reach of both Constantinople and Thessaloniki, on sea-lanes relatively immune to pirates, and had provisioned these cities and much of the Mediterranean with architectural marbles for centuries.27 It might be argued, therefore, that the relatively unornamented floors of the Hagia Sophia and the Acheiropoietos were surfaced with this plentiful stone with

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26 “Vi è in mezo al Tempio un gran quadrone di lastre di marmo finissimo, e bianchissimo; (che è chiamato anco il Mare; per esser le vene, che vi si scorgono, alla similitudine à punto d’un’ ondeggiantemare),” Giovanni Stringa, *La Chiesa di San Marco; Capella del Serenissimo Principe di Venezia* (Venice: Francesco Rampazetto, 1610), 19. The area measures 9.16 x 7.96 m, and consists of twelve slabs (each averaging 1.53 x 3.98 m). The extent of matching suggests that these slabs were not spolia but quarried ex novo: Lorenzo Lazzarini, review of “G. Borghini ed., Marmi antichi, Rome 1989,” *Bollettino di Archeologia* 5/6 (1990): 261.


little thought for any signification other than elegant utility. But there were far older and deeper associations to this marble, and marbles in general, that went straight to the heart of the matter. First was the still lively perception that marbles might be liquid, and second the more particular kinship between marble and the sea.

**Marbles as Liquids**

The antique theories of geology (see Chapter 1) that taught that marbles were of essentially watery origin still held, and in late antiquity they were still perceived as congelations of clammy vapors. When the fifth-century poet Flavius Merobaudes, for example, eulogizes a now-vanished baptistery he commends the marble font with the words “water wettens the marble tanks... and burdens the crystals with rapidly flowing currents. The jewel, once liquid itself, carries the liquid.”

During the medieval period these geological perceptions received continued support from Arab science in the East, the same texts masquerading in the West as by Aristotle. Thus, in his *On the Congelation and Conglutination of Stones* (1021/23), the Arab physician Avicenna (980-1037) deduced from observation of alluvial formations (*conglutination*) and the growth of stalactites (*congelation*) that there must exist a lapidifying, “mineral force” that freezes water. Such a conclusion would have been

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considered especially authoritative, because a Latin epitome of Avicenna’s treatise was often appended to Aristotle’s *Meterology* 4 as an extra chapter (*De mineralibus*), and therefore attributed to “The Philosopher” himself. Aristotle’s word was itself sacrosanct because his Latin translators had infiltrated proto-Christian nuances into their translations, but the observations in *De mineralibus* continued to be disseminated by sainted writers like Albertus Magnus as well (1220s).

Significantly, Avicenna/Aristotle did not regard the transformation in question as a deposition of solids in water, but rather the actual metamorphosis of water itself into stone. The widely-held belief that mountains were reservoirs of this marble brew and could renew themselves by sweating it out into their quarry scars also persisted, and the memory of Hierapolis, the city that had been supposedly built out of water (figs. 1.21-23), was sustained in the West by its brief description in Vitruvius even though it had been abandoned after the tenth century.

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32 Strab. 5.2.6; Pliny *HN* 36.24.125 (see Chapter 1). Cf. Restoro d’Arezzo (1282): “There are also mountains which are all white like snow, these also owe their origin to water which is making stone. A proof of this is that the water welling out from the summit of these mountains and spreading itself over the slopes of the mountains becomes dissipated leaving stone behind, and thus these mountains are growing continually,” Alberto Morino, ed., *Restoro d’Arezzo. La composizione del mondo* (Parma: Fondazione Pietro Bembo/Úgo Guanda, 1997), Bk. 6, ch. 8.

33 Vincent of Beauvais’s *Speculum naturale* 5.49, written c. 1250, very closely follows Vitruvius’s description (*De Arch*. 8.3.10): Stefan Schuler, *Vitruv im Mittelalter. Die Rezeption von “De architecture” von der Antike bis in die frühe Neuzeit* (Cologne: Hermann Böhlaus, 1999), 178. Hierapolis was in serious decline by the 10th century, and was ruined and abandoned by 1190: Paolo Verzone in Klaus Wessel and Marcell
Hierapolis’ actual fabric was travertine, but there is dramatic evidence that such genuinely natural formations fed wilder rumors. As late as 1491, an anonymous Ottoman writer found it necessary to refute the common belief that porphyry was a frozen, water-based dye and Filarete even cooked a piece of marble from a column at the Roman church of the Aracoeli to prove that it was not a water-based conglomerate.34

**Mar/Marmor/Marmora**

The presence of marine fossils surely encouraged the perception that certain stones were petrified water, but literary tradition also invited the association that was enshrined in the word Marmor itself. The Latin noun Marmor, which has resulted in all

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34 “And since no person has seen the marble quarry, certain people say that the one called Porphyry is artificially made. They say that during ancient times, according to the quantity of columns required, they made moulds and channeled water into them. Afterwards they added the desired color to the water, and then, they had a plant, and they also added this plant to the water and the water solidified and became marble, it is said. Now, if this were true, one would be able to find someone today to practice this art, since, for all the arts elaborated in ancient times one can find someone to practice them today, but there is nobody who knows how to fabricate marble. Therefore it seems these are empty words. Moreover, if it applied to a single color, one might find grounds for believing it. But since there exist marbles of three or four colors, it is impossible to add one color to water and obtain three or four colors and veining; reason cannot accept such a thing;” Addendum to the 9th-century (?) Greek Chronicle of the History of Constantinople from its beginning until the end (Anonymous 1491 Chronicle): Friedrich Giese, ed., Die altosmanischen anonymen Chroniken [Tawarih-i-al-i-Otman] (Breslau: Im Selbstverlage Breslau XVI, 1922), 93; my translation from the French version in Stefanos Yerasimos, La fondation de Constantinople et de Sainte-Sophie dans les traditions turques: légendes d’Empire (Istanbul: Institut français d’Études Anatoliennes d’Istanbul, 1990), 27. The porphyry columns in question are those in Haghia Sophia. The refuted claim resembles a garbled memory of a purple-dye factory. The best-preserved in the eastern Mediterranean is at Dor in Israel, where shallow rock-cut tanks can still be seen.

John R. Spencer, Filarete’s Treatise on Architecture: Being the Treatise by Antonio di Piero Averlino, Known as Filarete, 2 vols. (New Haven/London: Yale University Press, 1965), 1: 31-32; Bk. III, fol. 17v-18r. The writer Ibn ‘Asakir (died 1176) remarks on the marbles of the Great Mosque at Damascus, that “it is claimed that marble is a substance which has been petrified; it is alleged that the proof is in the fact that marble dissolves in fire,” Finbarr Barry Flood, “Palaces of Crystal, Sanctuaries of Light: Windows, Jewels and Glass in Medieval Islamic Architecture” (PhD, Edinburgh, 1993), 213.
modern, European derivatives (marmo, marbre, marble, marmor, etc.), descended from the Greek verb μαρμαίρειν (marmairein), meaning “to glisten.” Marmairein in turn was the iterative form of a verb whose Sanskrit root, Mar, implied motion. Mar had originally indicated the movement of the waves, and mar-mar the more agitated stirring (or murmuring) of the sea.  

In poetry, this assonance proved pregnant with possibility. When Homer had spoken of *hala marmara* (Il. 14.273) he had simply meant the “shimmering sea,” but when the Latin poet Ennius writes, about 184 BC, of a ship “skimming the calm sea’s golden marble,” a whole new realm of metaphor enters the poetic consciousness. There is no equivalent in English, but the nearest analogue is perhaps “the glassy sea.”

Catullus, Valerius Flaccus, Lucan, Lucretius, particularly Virgil but many others, all use *Marmor* as a synonym for *Mar* time and again to imagine the sea’s hard surface and hidden weight. Virgil fathomed marmor’s depths by describing a calm in which


36 “In describing the diversity of the colour *flavus* you have made me understand these beautiful lines from the fourteenth book of Ennii’s *Annals*, which before I did not in the least comprehend: The calm sea’s golden marble now they skim; Ploughed by the thronging craft, the green seas foam; for ‘the green seas’ did not seem to correspond with ‘golden marble.’ But since, as you have said, *flavus* is a colour containing an admixture of green and white, Ennius with the utmost elegance called the foam of the green sea ‘golden marble’” (“quod varietatem flavi coloris enarrasti fecistique ut intellegerem verba illa ex *Annali* quarto decimo Ennii amoenissima, quae minime intellegebam: ‘Verrunt extemplo placide mare marmore flavo / Caeruleum, spumat sale conferta rate pulsum’ non enim videbatur ‘caeruleum’ mare cum ‘marmore flavo’ convenire. Sed cum sit, ita ut dixistii, flavus color e viridi et albo mixtus, pulcherrime prorsus spumas virenis maris ‘flavom marmor’ appellavit;” Gell. *NA* 2.26.21-23 [Enn. *Ann.* 384-385]; Loeb ed., trans. John C. Rolfe).

Ennuius (239 - c. 169 B.A.D) was a Graeculus, a Hellenophone Calabrian, who also translated Greek tragedy. A recent commentator has therefore argued that “mare marmore” is simply a Graecism following Homer’s ὅλα μαρμαρῶν and imparts only “the gleaming, shimmering sea,” Otto Skutsch, *The Annals of Q. Ennius* (Oxford: Clarendon, 1985), 543. But it is equally reasonable to assume that Ennius had the actual material in mind, as Aulus Gellius thought he did. Likewise, Pliny assumed that Homer meant “marble” when he used μαρμαρός (*HN* 36.5.46; referring to *ll. I* 12.380, 16.735 and *Od.* 9.499).
“tides of marble smoothness meet the laboring oar” but the metaphor reaches fruition, and water again becomes stone, in the verses of Ovid. In wintry exile on the shores of the Black Sea, he writes that the chill is so fierce that “the ships, shut in by the cold, will stand fast in the marble surface and no oar will be able to cleave the stiffened waters.”

Eventually this particular association became so much a mental habit that the Emperor Julian, wintering in Paris (358-359 AD), will write home to describe a frozen Seine in Impressionist hues as huge sliding plates of Phrygian marble (or Pavonazzetto).

With all this in mind, even very familiar objects begin to accommodate quite unexpected interpretations. Anyone who has visited Rome will know the so-called

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38 *Lud.* 2.766-767: “ut mare, cum magni commorunt aequora venti / vertitur in canos candenti marmore fluctus” (“like the sea, when great winds have stirred up the surface, turns into hoary waves with a white sheen”). Lucretius compounds the metaphor by exploiting another sea-word “Aequor,” that refers equally to the polished surface of marble and a placid sea.

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39 *Julian*. Mis. 341B: έγένετο δὴ ὡν ὁ χειμών τοῦ εἰσὸδος σφοδρότερος, καὶ παρέφρεγεν ὁ ποταμός ἀσπέρ μαρμάρου πλάκας· ἵπτε δὴ τὸν Φρυγίων λίθον, ὃ ἐφεξε μάλιστα τοῦ λευκοῦ ταύτου τὰ χρύσταλλα, μεγάλα καὶ ἐπάλληλα φερόμενα· καὶ δὴ καὶ συνεχῇ ποιεῖν ἠδή τὸν πόρον ἐμέλλε καί τὸ ἑσύμα γεφυρών (“That winter was more rigid than usual and the river flowed on the water like slabs of marble. You will certainly know Phrygian stone, well the pieces of ice resembled it to an extraordinary degree for they were of the same whiteness and the enormous blocks rolled one over the other, and had already made a compact surface, almost like a bridge over the current”). Late antique poets continue to match *mar* and *marmor*: Avien. *Orb. Terr.* 56, 137, 169, 187, 206, 230, 245, 429, 492, 552, 635, 709, 714, 751, 775, 828, 1310.
Bocca della Verità (figs. 5.13), or “Mouth of Truth,” into whose maw gullible tourists insert their hands and swear to tell the truth on pain of amputation.\(^4\) Few know that this disk is really a first-century drain cover carved from a single block of Phrygian marble, while the celebrity it earned from the film Roman Holiday has ensured that its true identity as a portrait of Oceanus has remained forgotten.\(^4\) Geographically the stream Oceanus encircled the world and marked its limits, but he was also a great cosmic power, the watery mass from which which the Greek world was born. Thus, his disembodied mask and its staring, apotropaic eyes are the fulcrum of innumerable floors (figs. 5.14), and on some of these, and many sarcophagi, Ocean’s hair and beard materialize out of piled waves. By recovering this knowledge we can again appreciate how, on the Bocca della Verità, the deity’s head is contained within the “birth-mark” of the marble so that when he reared his head in public it seemed a body of water itself, the face of the deep. Conversely, this mask must have made whatever court it once adorned a microcosm across which the waters streamed back into Ocean just like those daily draining off the earth at large and the sky above. Giulio Romano graphically reproduced the same microclimate in an extraordinary design for a silver salver (1542) whose swirling vortex sucks in both fish and downpour, and whose material itself is

\(^4\) A thorough resumé of the medieval legends that gave rise to this tradition is in John W. Spargo, Virgil the Necromancer: Studies in Virgilian Legends, (Cambridge MA: Harvard University Press, 1934), 207-27, 398-413.

implicitly transfigured into quicksilver (fig. 5.15). This imag(in)ing into the material is so reminiscent of the Bocca della Verità that Giulio can only have been inspired by it.\textsuperscript{42}

Whatever the case, the fourth- or fifth-century sculptor who picked out an intensely red, onyx block with particularly gushing veining for a Christian sarcophagus in Brescia (fig. 5.16) understood the material paradox well enough to enlist this marble as the vehicle \textit{par excellence} for depicting the \textit{Crossing of the Red Sea}. When the Israelites had made their crossing the sea had solidified into “a structure, created by a hanging wall of water, [which] held back the sea and kept it suspended in the air.”\textsuperscript{43} To make the allusion completely symmetrical, we must remember that the Red Seafigures recurrently in poetry in association with Persian gems, alongside references to blood and purple dye.\textsuperscript{44}

\textsuperscript{42} Chatsworth inv. 104. Michael Jaffé, \textit{The Devonshire Collection of Italian Drawings: Roman and Neapolitan Schools} (London: Phaidon, 1994): 112-13 (cat. no. 224) with bibliography. Giulio described it as a “design for the goblet and basin in which is feigned a spiralling rain that ends up being swallowed in a vortex and the goblet likewise finishes in droplets that are gathered into waves” (“disegno del boccale et bacino nel quale è finto una pioggia che si aggira et conduce ad ingiottire in una voragine et il boccale medesimamente finito di goccie che si radunano in onde”). Another sketch of Oceanus by Giulio, probably after a sarcophagus, survives in the Witt Collection of the Courtauld Institute: Frederick Hartt, \textit{Giulio Romano} (New Haven: Yale University Press, 1958): cat. no. 112 and fig. 47.


The “Red Sea” sarcophagus (Museo Civico di Brescia, MR 5852) survived antiquity as the frontal of the high altar in the church of S. Afra (now S. Angela Merici), Brescia. The artifact is labeled as the possible product of a Milanese workshop, but there is apparently no bibliography available. The scene in the other register is quite probably Moses striking the rock.

\textsuperscript{44} Tib. 2.4.30, 3.8.19; Hor. \textit{Carm.} 1.35.32; Prop. 1.14.12 (as the breeding ground of coral); Sen. \textit{Oedipus} 120, \textit{Hercules Octaicus} 660, \textit{Thyestes} 373; Petronius \textit{Frg.} 31. Cf. Jacques André, \textit{Étude sur les termes de couleurs dans la langue latine} (Paris: C. Klincksieck, 1949), 359.
Carystian and Proconnesian Marble

Ennius had written of waves of “golden marble,” Homer of the “wine-dark sea,” and rarely did ancient eyes regard the waves as “blue.” More often than not, they were green, and one marble that regularly impersonated water was Carystian (or Cipollino), from Euboea in Greece. Its marine veining, the poets reveled, “competed with the sea” and “joyed to behold the waves.” Even the quarry was “wavy.”

The metaphor was so ingrained that in a Nilotic mosaic now in the Museo Nazionale, the river not only simulates the colours of Carystian marble but even its veining (fig. xxxx). As a result, Carystian was recurrently employed in bath-complexes throughout the empire, private or public, and the desired effects are now nowhere more obvious than in the frigidarium of the Villa of the Quintili on the Via Appia (late-second/early-third century, fig. 5.17). Here Carystian ripples under the geometric floor, the columns are of the same

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45 “Carystos joys to behold the waves” (“gaudens fluctus spectare Carystos;” Silv. 2.2.92). Statius must intend Carystian when he writes of “the veined rock the same color as the sea” (“concolor alto vena mari;” Silv. 1.2.149-150) and “the rock that vies with the grey-green sea” (“glaucae certantia Doridi saxa” Silv. 4.2.28). Cf. Pliny on the best emeralds: “their merit lies in their color which is clear without being weak, but limpid and rich, resembling, wherever it is transparent, the transparency of the sea” (“dos eorum est in colore liquido nec diluto, verum ex umido pingui quaque perspicitur imitante tralucidum maris;” HN 37.17.66). The prevalent perception that the sea was green also explains a garbled notion of Isidore: “the Greek word ‘marble’ is called after its greenness” (“marmor sermo graecus est a viriditate vocatus;” Isid. Etym. 16.5.1).

46 Statius calls the quarry “undosa Carystos” (Silv. 1.5.19), although the marble actually took its name from the river (Carystos) that ran by the quarry.


marble, and if the wall revetment were as well, one would have felt submerged before even entering the pool.

On the other hand, because Carystian was also one of the most widely used marbles in the Roman empire, another pair of examples will be necessary to demonstrate its aqueous symbolism, one in Tunisia the other at Tivoli. The first is the peristyle impluvium in the *Maison du Char de Venus* (after 317 AD) at Thuburbo Maius, which is paved in mosaic to imitate large book-matched slabs of Carystian marble. This floor drains into a cistern below, which it therefore intimates although one can only imagine the surface effects when the drain was plugged (figs. 5.18).\(^{49}\) Significantly, the frigidaria of nearby baths deploy the same paving.\(^{50}\) The second example, at Hadrian’s Villa at Tivoli, the columns, paving (and missing revetment?) of the ambulatory encircling the famous *Teatro Marittimo* (c. 118 AD), were again exclusively of Carystian marble with the result that the emperor’s hideaway would have originally floated in a tranquil “sea,” not an ornamental pond.\(^{51}\) In fact, since this is a ring-canal, the sea in question was probably no less than Ocean himself. All in all, the longevity of Carystian’s marine identity was such that, in the 1490s, Mantegna capitalized on this

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\(^{49}\) Aïcha Ben Abed Ben Khader, *Thuburbo Majus. Les mosaiques dans le quartier ouest* (Tunis: Institut National d’Archéologie et d’Art, 1987): 61-91, esp. 70, pl. XXVII. Many other examples of such faux-Carystian floors survive from Tunisia, several transported to the Bardo Museum. As the corpus remains to be completed it is presently difficult to say how many others originally stood over cisterns.

\(^{50}\) Winter Baths (199 AD): Aïcha Ben Abed Ben Khader et al., *Thuburbo Maius. Les mosaiques de la region des grands thermes* (Tunis: 1985): 72-73, pls. XXVII, XXX, XXXII. Also the Frigidarium of the Public Baths at Maktar.

same marble’s veining in his design for a fountain (fig. 5.19), and in the 1890s the marble-literate painter Alma-Tadema knowingly foregrounded it in his reconstruction of the Baths of Caracalla (fig. 5.20).\(^5\)

By the sixth century, however, it was Proconnesian marble, the flooring of Hagia Sophia, which had largely supplanted Carystian in its power to epitomize the sea. Glistening white blocks of this marble had already been quarried from the isle of Proconnesus for centuries, but the Byzantines sought out the faces streaked with dove-grey seams and enhanced its “ripple” veining by slicing the slabs across the bed and cutting columns on the bias (figs. 5.21-23).\(^5\) Finally, by the advent of the Latins (1204),

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the equation of Proconnesian with water was consummated in the knowledge that the island (“sea-girt Proconnesus” as Paul the Silentiary says) from which these slabs hailed had given the encompassing sea its popular name: Marmara. 54

The Cosmic Floor: the Meadow, the Ocean and the Glass Sea

It now remains to examine why a marine image should have been desirable for a church floor to begin with. A partial answer comes from considering other Byzantine floors with diagrammatically marine iconography, a more complete one from considering the implications of the materials themselves, in Hagia Sophia’s case Proconnesian marble.

Numerous late-antique and medieval floor mosaics in both the eastern and western Mediterranean have as their template the ancient ideogram of the mythical Ocean encircling the world. 55 In the eastern examples the nave floor (representing the

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53 The earliest reference known to me is Procop. Aed. 1.10.19: “most of them [the pavement marbles in the Palace of Justinian] are white in color, yet the white is not plain, but is set off with wavy lines of blue which mingle with the white” (λευκόν δὲ τῶν πλειόνων τὸ εἴδος, οὐ λιτῶν μέντοι, ἀλλ’ ὑποκομιάνει κυναγμεῖ ὑπογεγραμμένον μεταξὺ χρώματι). Paul the Silentiary also commends the “Bosporus Stone” on the kerb of the Ambo in Hagia Sophia that “gleams white but on whose white skin a blue vein winds a scattered path” (Descr. Amb. 150-153). Cf. Descr. S. Sophiae 664-667 (Appendix 4.5).

54 “The Sea of Marmora is an inland circular sea of about eight leagues across, and they call it Marmora because from it came all the marble for Constantinople, both for the walls as well as for the city;” Malcolm Letts, Pero Tafur, Travels and Adventures 1435-1439, (Routledge, 1926), 114.

“MarmOra” is also spelled “MarmAra” and “MaLmara.” Andreas Kuelzer has kindly provided me the earliest surviving references to this toponym: Patrick Gautier Dalché, Carte marine et portulan au XIIe siècle: le “Liber de existencia riveriarum et forma maris nostri Mediterranei” (Pise, circa 1200), (Rome: Ecole Française de Rome, 1995); Edmond Faral, ed., Villehardouin. La Conquête de Constantinople 2 vols. (Paris: “Les Belles Lettres”, 1939), 2: 292 (c. 1212 AD). The sea’s original name was Propontis.

oikoumene or inhabited world) is often bounded by a decorative border representing Ocean. In each case, the devotee found the world at his feet, transforming the church (or imperial hideaway) into a model of the universe and therefore putting it on a cosmic footing. Moreover, if one pursued the cartographic suggestions of the floor to their logical conclusion, then the sanctuary occupied the position of paradise itself. It should be added that in one instance, Ocean may even have been simulated in the real canals that surrounded the great cathedral at Edessa, Syria (c. 543-554 AD).

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56 E.g., the Basilica at Tegea (Arcadia, late 5th century), the church at Khaldé (Lebanon, c. 450/500), SS. Cosmas and Damian at Gerasa (Jarash, Jordan, 533), and the basilica at Heraclea Lynkestis (Bitola, Former Yugoslav Republic of Macedonia, late 5th/early 6th century): Maguire, *Earth*: 24-26, 33-40. Other examples include the basilica at Hadjeb-el-Aïoun near Kairouan (Jordan, 6th century), and St. Stephen at Umm al-Rasas Mayfa’ah, (in antiquity Kastron Mefaa, Jordan, c. 760), where the stream represents the Nile: Michele Piccirillo and Eugenio Alliata, *Umm al-Rasas, Mayfa’ah I: gli scavi del complesso di Santo Stefano* (Jerusalem: Studium Biblicum Franciscum, 1994): 141ff. In the narthex of the Large Basilica at Heraclea Lynkestis, the border is in the process of translation from a naturally descriptive band to a geometrical interface motif. The long central panel is filled with trees and cavorting animals, bordered by hexagonal panels with various fish and water fowl interlinked by a concentric swastika meander; G. C. Tomasevic, “Mosaïques paléochrétiennes récemment découvertes à Héracléa Lynkestis,” in *La mosaïque gréco-romaine II. Actes du IIe Colloque international pour l’étude de la mosaïque antique, Vienne, 30 août-4 septembre 1971*, ed. Henri Stern and Marcel Le Glay (Paris: A. & J. Picard, 1975), 385-99. For textiles that repeat the image: Maguire, “Mantle,” 221-28.


57 The 6th-century hymnist on the Cathedral of Edessa remarks how it was “an admirable thing that in its smallness it should resemble the great world, not in size but in type, waters surround it as the sea [surrounds the earth].” For Mango and McVey this simply means that the Cathedral stood between two lakes, and that the river Skirtos ran around it: Mango, 58; Kathleen E. McVey, “The Domed Church as Microcosm: Literary Roots of an Architectural Symbol,” *Dumbarton Oaks Papers* 37 (1983): 98-99. But
Now for the materials. To most contemporary eyes, the glittering Cosmati meadows that were strewn across S. Marco and Montecassino rendered the church an Eden of gems that flashed underfoot like the garden of God described by Ezekiel (Ezekiel 28:13, 14). But a watery floor in the very image of an entire sea, as could only be achieved with Proconnesian marble, promised to be the alpha and omega of all such premonitory materiality. For when its shimmering surface lay beneath an overarching dome of luminous gold the whole construct became a simulacrum of God’s Separation of the Waters in Genesis 1:2-8,

And the Spirit of God moved upon the face of the waters... and God made the firmament, and divided the waters which were under the firmament from the waters which were above the firmament... And God called the firmament 'heaven'

These verses were fundamental for the Judaic view of the universe, and thereafter the Christian and Muslim versions. Christian depictions of the division of the upper from lower waters range from the ideograms in an eleventh-century manuscript of the sixth-century Topography of Cosmas Indicopleustes (fig. 5.24), to the

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Palmer suggests that water-channels were cut around the church “as part of a conscious mimesis of the created world,” and this seems confirmed by the fact that when a baptistery was built elsewhere in Edessa towards the end of the 7th century, it had “water-channels like those... made in the Old Church”: Andrew Palmer and Lynn Rodley, “The Inauguration Anthem of Hagia Sophia in Edessa: A New Edition and Translation with Historical and Architectural Notes and a Comparison with a Contemporary Constantinopolitan Kontakion,” Byzantine and Greek Studies 12 (1988): 127, 134. Talmudic scholars had also remarked that the court of the Temple in Jerusalem surrounded the Temple “just as the sea surrounds the world”: Raphael Patai, Man and Temple in Ancient Jewish Myth and Ritual (London: Thomas Nelson & Sons, 1947): 107-08.

58 The Judaic tradition held that the earth rose on four pillars above the oceans, its overarching vault supporting another sea of rain and snow, above which God sat enthroned and transcendent. Muslim commentators even saw the throne as the first body that God produced, and water the second but anticipating the creation proper: “It is He Who created the heavens and the earth in six days and His throne was upon the water” (Qur’an, 11.7/9, derived from Psalms 29.10). See Thomas J. O’Shaughnessy SJ, “God’s Throne and the Biblical Symbolism of the Qur’an,” Numen 20 (1973): 212.
more evident evaporations and precipitations of a thirteenth-century French illuminator (fig. 5.25). Not only had God divided the waters but he had also sat “above the waters” since Creation. And on Judgment Day, Revelation tells us, His apocalyptic throne will finally be visible to all resting upon “a sea of glass like to Crystal,” or alabaster, a “sea of glass mingled with fire” (Revelation 4:6, 15:2). In fact, this is exactly how we see Him, above a shifting sea laced with flame flanked by horn-blowing apocalyptic angels, on the proscenium of of S. Michele in Africisco (545), Ravenna, mosaics that were installed within a decade of the inauguration of Hagia Sophia (fig. 5.26). Another such sea, this time carved, also subtends God’s throne in the tympanum

59 The illustration is from Topographia IV, 2: in the 11th-century Ms at St. Catherine’s, Mount Sinai, Codex Graecus 1743, fol. 65v, published in Paul Huber, Heilige Berge: Sinai, Athos, Golgota. Ikonen, Fresken, Miniaturen (Zurich: Benziger, 1982), 73, fig. 45. In mid-6th century Alexandria, the Nestorian Cosmas Indicopleustes defended the biblical cosmology and Antiochene theology against the Monophysite John Philoponos, who advocated the Ptolemaic cosmology and by extension the Alexandrian tradition: Wanda Wolska-Conus, La topographie chrétienne de Cosmas Indicopleustes: théologie et sciences au Ve siècle (Paris: Presses Universitaires de France, 1962), 147-92. Cosmas used Revelation and the Psalms to anathematize the Ptolemaic system, quoting e.g. “Who layeth the beams of his upper chambers in the waters” (Psalms 104.3) and “the waters that are above the firmament” (Psalms 148:4); 7.275, 296-297; J. W. McCrindle, ed., The Christian Topography of Cosmas, an Egyptian Monk (London: The Hakluyt Society, 1897), 265, 298-99, Plate 3.


61 θάλασσα ύαλινη όμοια κρυστάλλω (“mare vitreum simile crystallo”), θάλασσαν ύαλίνην μεμιγμένην πυρί (“mare vitreum mistum igne”). Even when Moses had seen God on Sinai “there was under His feet as it were a paved work of sapphire stone” (Exodus 24:10).

62 Peter Grossmann, S. Michele in Africisco zu Ravenna. Baugeschichtliche Untersuchungen (Mainz am Rhein: Philipp von Zabern, 1973); Friedrich W. Deichmann, Ravenna: Hauptstadt des spätantiken Abendlandes, 5 vols., (Wiesbaden: Franz Steiner, 1969-89), 1: 220-25, fig. 211; 2: 35-46, esp. 40-43; Arne Effenberger, Das Mosaik aus der Kirche San Michele in Africisco zu Ravenna, 2nd ed. (Berlin: Evangelische Verlagsanstalt, 1989), esp. 60-64 and note 114. The mosaic (545) was transferred to Berlin in 1850, but not installed in the Kaiserfriedrichsmuseum (now the Bode) until 1904. Although it was butchered by the restorations of the dastardly Giovanni Moro, the sea is already clearly recorded in Pazzi’s watercolor of 1843: Irene Andreescu-Treadgold, “The Wall Mosaics of San Michele in Africisco, Ravenna Rediscovered,” in 37.
of the portal at Moissac (c. 1125), which is to say contemporary with the paving of S. Marco (fig. 5.27).\footnote{Corso di cultura sull’arte ravennate e bizantina: Seminario internazionale di studi sul tema “L’Italia meridionale fra Goti e Longobardi,” Ravenna, 30 marzo - 4 aprile 1990 (Ravenna: Edizioni del Girasole, 1990), 13-57.}

In S. Marco, observers could find both seas, the Deep and the Celestial. A “sea” of nested chevrons (rather than wickerwork, as it is normally explained) was inscribed between the legs of the so-called “Throne of St. Mark,” the prized relic that stood behind the basilica’s High Altar and which was carved with cherubim, palms, the Lamb of God and the four rivers of paradise (fig. 5.28).\footnote{Meyer Schapiro, The Romanesque Sculpture of Moissac (New York: George Braziller, 1985), 78-79; Thorsten Droste, Albert Hirmer, and Irmgard Ernstmeier-Hirmer, Die Skulpturen von Moissac: Gestalt und Funktion romanischer Bauplastik (Munich: Hirmer, 1996), 172-73.} Venetians could also compare the veined “sea” under the crossing nearby with the linguine-like waves over which the Spirit of God hovers in the mosaics of the Genesis cupola in the atrium\footnote{In a summary of an unpublished paper Grabar remarked on the diffusion of “la mer de glace” in western medieval frescoes: André Grabar, “La mer céleste dans l’iconographie carolingienne et romane,” Bulletin de la Société Nationale des Antiquaires de France (1957): 98-100. In some eastern cases, like the frescoes (1191) in the church of St. George at Kurbinovo (Former Yugoslav Republic of Macedonia), God’s mandorla is shown as fish-infested for the same reasons: Lydie Hadermann-Misguich, “Les Eaux vives de l’Ascension dans le contexte visionnaire des théophanies de Kurbinovo,” Byzantion 38 (1968): 381-83.} (fig. 5.29).

Added to all these musings was, of course, the inescapable frisson that Venice was

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\footnote{André Grabar, “La ‘sedia di S. Marco’ à Venise,” Cahiers archéologiques 7 (1954): 19-34; Patricia Fortini Brown, Venice & Antiquity: the Venetian Sense of the Past, (New Haven/London: Yale University Press, 1996), 41. Legend held that the Emperor Heraclius (610-641) had donated this artifact, of Syrian or Egyptian origin, to the Cathedral of Grado in recognition of St. Mark’s role in founding the patriarchate there. It is worth adding that the pendentives of the dome above the “mare” contain personifications of the four rivers of paradise – Gyon, Euphrates, Phison and Tigris – that stand below the Evangelists and are shown emptying their amphorae towards their feet (and so the floor): Otto Demus, The Mosaics of San Marco in Venice. I. The Eleventh and Twelfth Centuries, 2 vols. (Chicago / London: University of Chicago Press, 1984), 1 (Text): 194-95 and 2 (Plates): figs. 234, 327-329}

herself a city founded upon water, a fact that became painfully obvious with every seasonal *acqua alta*.

In Hagia Sophia the two waters essentially compose the *basso profondo* underlying the dancing reflections of the materials. From remotest antiquity until the seventeenth century, few doubted that rock-crystal was a form of ice that had been frozen by primordial cold. This suggested that light (the active principle of the Logos) was frozen into its very fabric. Thus, when marble, which was a more opaque cousin of crystal, was polished it recovered this original light in a surface slick. The common resemblance of shimmer to wetness, the “wet look” that mosaics and marbles alike could achieve, therefore, pointed beyond the surface to a substratum of physical affinities. Taken as a whole the dome of Hagia Sophia became a “shower of light,” tumbling down in a luminous cascade, washing the walls and soaking the floor. The tenth-century soldier-poet John Geometres virtually says as much when he describes

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66 See Chapter 3. The Byzantines even inscribed verses to this effect on rock-crystal ornaments: e.g. the poem by Manuel Philes (c. 1275 – c. 1345) on a rock-crystal relief of Christ: “Ὑδρος ὁ λίθος ὁ ὑπός. ὅς ὁ κάτω λίθος. / Πηγγοσι δ` ὁν καὶ τοὺν εἰς λίθου Φύτην. / Ο πηγγοσ εἰς χρυσαλον ύδατων χύσιν. / Μῆτως ὁ λίθος ἐκλυθείς υποβάθμι. (“This stone is water, not really stone; / He who freezes flowing water into ice / Also freezes this into the nature of stone / Lest the rock melt and flow away”); Alice-Mary Talbot, “Epigrams in Context: Metrical Inscriptions on Art and Architecture of the Palaiologan Era,” *Dumbarton Oaks Papers* 53 (1999): 88; Carm. 86 in E. Miller, *Manuelis Philae Carmina, ex codicibus Escurialensis, Florentinis, Parisinis et Vaticanis*, 2 vols. (Paris: Typographeum Imperiale, 1855-1857), 1: 38.

67 E.g. Michael the Deacon: “How its countenance flashes forth like liquid through gold which is everywhere... the brightness of the gold almost makes the gold appear to drip down; for by its refulgence making waves to arise, as it were, in eyes that are moist, it causes their moisture to appear in the gold which is seen, and it seems to be flowing in a molten stream,” Mango and Parker, “Twelfth-Century Description,” 235, 37. Gage has perceived this commonality as based in an aesthetic of “gentle but ceaseless movement” that unites shifting floor and restless mosaics: John Gage, *Colour and Culture: Practice and Meaning from Antiquity to Abstraction* (London: Thames & Hudson, 1993): 57. The 562 *kontakion* actually implies that the dome is the *stereoma*, i.e. the “the firmament solidified in the midst of the waters” (Appendix 4.4, str. 6, 7).
the columns of the Stoudios church (454/463), Constantinople, melting back into their watery cradle in the earth and discharging over the floor in the process:

The polished splendor of these stones
Seems another sea without waves
As though just now it has fallen calm.
The light and luster of the columns,
Their lovely sparkle, resembles
A river glistening with dissolved Snow, which, almost another sea, flows Towards the glossy stones of the floor,
Silently. And the earth
And its treasures? Look at the varied play
Of its colors and the harmonious Designs. You see here a meadow
Composed by art, clothed in flowers
That time will not wither\(^6\)

All in all, the glossy materials of the domed church allow it to be regarded as globally crystalline, impinged by the local color of earthly generation or heavenly ether. Divine light bleached the church’s upper shell, paradisiacal landscapes (although rainbows or peacock wings, or other images of iridescence and multiplicity would do just as well) inhabited its walls, and cosmic waters pressed up against its floor. The symmetry of the whole construct is evoked by Claudian who describes a crystal-ball, or

\(^6\) PG 106, col. 943; John A. Cramer, ed., Anecdota græca e codd. manuscriptis Bibliothecæ Regiaæ Parisiensis, 4 vols. (Oxford: Typographeum Academicum, 1841), 4: 306; Gnoli, 52; λίθων δὲ τούτων ἡ διαγής λειότης / ἄλλη δοξεῖ θάλασσα ναμάτων ἄνευ / ὡς ἐν γαλήνῃ νῦν κατεστροφρεσμένη. / αὐγή δὲ τούτων κιόνων καὶ λευκότης / καὶ συχνὸν ἀστράπτουσα χρώας τερπότης. / ὡς αἱ ὀξεῖθρον ἐκτακείσης χόνος / λαμπρῶν, διειδές, ἀγορητὶ πως ἄνευ. / ὡς πρὸς θάλασσαν ἄλλην ἐμβάλλει κάτω, / τοῖς ἐξαιστητήσουσιν ἐν πάθῳ λίθοις. / αὐτὴν δὲ τὴν γῆν καὶ τὰ τῆς γῆς, εἰ θέλεις, / αὐτῶν σκόποι μοι χρωμάτων τὸ ποιχίλον. / καὶ τῶν γραφῶν τὸ χάλλος: ἄλλον ἐνθάδε / λειμώνα γραφέων. ἐκ τέχνης εἰσιγάμενον / ἀντι κοιμῶντα μὴ παραφασθοῦντα χόνῳ. The Stoudios columns are actually Thessalian marble (verde antico), but Paul the Silentiary calls even this marble “fresh green as the sea.” John Geometres presumably describes an earlier floor, quite possibly Proconnesian, as the present opus sectile version seems to date from the twelfth century.
lens, as a miniature replica of the Cosmos in his epigram “On a Crystal enclosing Water” (c. 390/395):

The snow-white crystal, fashioned by the hand of man,
    Showed the variegated image of the perfect universe,
The heaven [= i.e. spherical], clasping within it the deep-voiced sea

The liquid and crystalline surfaces of light are also the themes that underlie the Islamic fountains that attempted to perform as microcosms of real water. An eleventh-century one in an Arab house in Cordoba is described thus: “From its head water fell in the form of a dome upon a floor of alabaster and marble; lights were set inside this ‘dome’ and were thus covered by it.” A celebratory poem makes more obvious the microcosm when it surreptitiously questions:

Tell me what is the torch upon the lamp
    That sprouts crystals onto a crystal base?
A stream that will not kill fire in its midst,
    Its waters standing like a wall and missiles,
A sky encrusted with an onyx skin
    Stretched over a ground of bedellium

The upper waters had been frozen at creation into crystal, a fact that one knew because at night one could see the stars through the heavenly spheres, and this archetypal construct was born again in the letter of Scripture. As the Book of Job lays

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69 *Anth. Pal.* 9.753: Εἰς κρύσταλλον ἐνδόθη ὕδωρ ἐξουσαν / Χιονέη κρύσταλλος ὑπ’ ἁνέος ἀσκηθεῖσα / δεῖξιν ἀκηρασίοιο παναίλοιο εἰκόνα κόσμου, / οὐφανόν ἁγίας ἐχοντα βαφόκτυπον ἐνδοθεὶ πάντων

70 Frederick P. Bargebuhr, “The Alhambra Palace in the Eleventh Century,” *Journal of the Warburg and Courtauld Institutes* 19 (1956): 211-12, and n. 60. These were also materials of Paradise: “a river flowed from Eden to water the garden... bedellium [= crystal] and onyx stone are found there” (*Genesis* 2:10-12). Some alabasters were also compared to water, like that from Hierapolis on the ambo of Hagia Sophia (which Paul the Silentiary extols): Mango, 92. For the latter alabaster: Matthias Bruno, “Alabaster Quarries near Hierapolis (Turkey),” in *Interdisciplinary Studies on Ancient Stone: Proceedings of the Sixth International Conference of the “Association for the Study of Marble and Other Stones in Antiquity,” Venice, June 15-18, 2000*, ed. Lorenzo Lazzarini (Padua: Bottega d’Erasmo, 2002), 19-24.
out, when God had divided the waters His breath had crystallized the sky, and He had “shut in the sea with doors, when it brake forth, as if it had issued out of the womb” (Job 38:8). The simulacrum of the church therefore fixed the image of creation in a material metaphor that literally enacted Job’s words that “the waters are hid as with a stone, and the face of the deep is frozen” (Job 38:30).

To recap, a church floor of frozen water could evoke at one and the same time the Creation and the Apocalypse, by recalling the ambience of God’s throne-room beyond human time and out of this world. In the beginning God froze the waters and, when He renews the universe at the end of time, He will restore the earth’s original luminosity and its surface will no longer be dark and dull but will become a diaphanous mass as sleek as glass. The brilliant, polished floor therefore becomes a mirror of the divine plan, and by stepping on it one enters heaven. The glacially-white floors eventually recorded in various Constantinopolitan churches probably harbored this ambition.

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71 “Εφραξά δὲ θάλασσαν πύλαις, οτὲ ἐμαίμασσεν ἐκ κοιλίας μητρὸς αὐτῆς ἐκπορευομένη (“quis conclusit ostii mare, quando erumpebat quasi de vulva procedens”). God “alone spreadeth out the heavens, and treadeth upon the waves of the sea,” “by the breath of God frost is given: and the breadth of the waters is straightened”, but also the “sky which is strong, and as a molten looking glass” (Job 9:8, 37:10, 37:18). Job is generally considered a text of Hellenistic date.

72 “Ἡ καταβαίνει ὁσπερ ὕδωρ ὄξων. πόσσοιν ὀσεβοῦς τίς ἐπτηξεν (“In similitudinem lapidis aquae durantur, et superficies abyssi constringitur”).

73 Cosmas Indicopleustes explains that “the heavens being on fire shall be dissolved, and the elements shall melt with fervent heat but [we look for] new heavens and the new earth” (Hebrews 6:20; 1 Peter 3:12) means “that with a great noise, as in the twinkling of an eye, all the elements being on fire as in a furnace and being thus purified, undergo the change for the better;” Cosmas Indicopleustes 7.290-291; McCrindle, ed., Christian Topography, 287-89. The crystalline transformation appears also in Thomas Aquinas, Summa Theologica, 91:3-4, based upon Isaiah 30:26.
Judaic precursors and Islamic progeny

The patrons, architects and theologians who thought “sea” when they surveyed a church floor would recall the “brazen sea” in the prototypical Temple of Solomon\textsuperscript{75} or the waters that flowed from the temple in Ezekiel’s vision, and the various pools and fountains of Hagia Sophia’s long-lost atrium consciously prefigured the simulations of the interior.\textsuperscript{76} Rabbinical commentaries on the third, Herodian temple make it clear that the visual association between marble and water was very well established in Judaic lore long before its explicit Byzantine appropriation.\textsuperscript{77} A Babylonian Talmud of the

\textsuperscript{74} The white floor in S. Akakios, built by Constantine and restored by Justinian, gave the impression “that the whole church is coated with snow” (Procop. Aed. 1.4.25). Leo the Wise (886-912) says that the church of the Kauleas monastery was “paved with white slabs [forming] a continuous translucent [surface], uninterrupted by any other colour” (Appendix 4.9), and Robert de Clari says of the Pharos Chapel (880) in the Boukoleon Palace that “the chapel’s pavement was of a white marble so smooth and clear that it seemed to be of crystal” (“Et li pavements de la chapelle estoit d’un blanc marbre si lisse et si clere qu’il sembloit qu’il fust de cristal;” Edgar H. McNeal, ed., Robert de Clari. The Conquest of Constantinople, (Toronto/London: University of Toronto Press, 1997), 103). A floor “en plaques rectangulaires de marbre blanc avec un cadre noir” was discovered in the excavation of “Basilica A” at Bayazit, Istanbul, in 1946 and immediately destroyed along with the entire complex: Nezih Firatli, “Découverte de trois églises byzantines à Istanbul,” Cahiers Archéologiques 4 (1951): 167, and fig. 1; Ernest Mamboury, “Les fouilles byzantines à Istanbul,” Byzantion 27 (1951): 433-37.

\textsuperscript{75} 1 Kings, 7:23; Ezechial, 47:1-12. The appeal to Solomon’s brazen “sea” is noted in Georg Scheja, “Hagia Sophia und Templum Salamonis,” Istanbuler Mitteilungen 12 (1962): 51. The Narratio (19) claims that Justinian originally wanted to sheathe the floor in silver. The Narratio also calls the floor below the altar, which was sheathed in silver, a “sea” (θάλασσα), Dagron, Constantinople: 205, 243 (note 142). Constantine Porphyrogenitos calls the altar θαλασσιέον. The Narratio also claims that Justinian made a fountain in imitation of Solomon’s in the atrium.

\textsuperscript{76} More difficult to locate and interpret is the “sea” he made “on the right side of the Gunaikitis... in which water collected to the depth of one span, and a gangway for the priests to walk over the pool;” Mango, 101. See the various redactions of this passage in Vitti, ed., Erzählung. Such immersion pools, and their Judaic and Classical precedents are analyzed in Demetrios I. Pallas, 'Η θαλάσσα τον Ἐκκλησίαν. Ὡς βάθος τῆς εἰς τὸν θρόνον τοῦ κυρίου τῆς θαλάσσας καὶ τὴν αὐτοκόλλησιν τῆς λειτουργίας (La ‘Thalassa’ dans l’église chrétienne. Contribution à l’histoire de l’autel chrétien et à la morphologie de la liturgie) (Athens: Institut Français d’Athènes, 1952), esp. 39-40, 146-56. Cf. Paul Lemerle, review in Byzantinische Zeitschrift 46 (1953): 402-04. Lethaby argues that the atrium was a “paradise” with flowing streams: Lethaby and Swainson, Sancta Sophia: 191-92.
fourth century recounts that Herod “intended to overlay [the wall] with gold, but the Rabbis told him, ‘Leave it alone for it is more beautiful as it is, since it has the appearance of the waves of the sea.’” The identity of the marbles envisioned by the Amoraim (Talmudic scholars) is sealed by their use of the Greco-Latin word Marmar, and other texts refer to the stones of Perak Onsin, in which can be detected a corruption of the name Proconnesus. Grossmark has shown that another, cryptic warning that “When ye arrive at the stones of pure marble, say not, Water, water!” derived from a mystical account of ascent to the upper spheres in which one of the journeyers “stood at the entrance to the sixth palace and saw the splendor of the air of pure marble stones and he opened his mouth two times and said Water, water…” In other words, the material portended a heavenly vision, and another medieval version of this story lays emphasis on this otherworldly dematerialization by describing the mirage of the “hundreds of thousands and millions of waves of water [that] stormed against him, and yet there was not a drop of water, only the ethereal glitter of the marble plates with which the (Sixth) Palace was tessellated.”

77 Tziona Grossmark, “‘Shayish’ (Marble) in Rabbinic Literature,” in Marble Studies. Roman Palestine and the Marble Trade, ed. Moshe L. Fischer (Constan: UVK Universitätsverlag Konstanz, 1998), 274-83, esp. 77-78. Most of the following Talmudic references are first cited there.


80 Gershom G. Scholem, Major Trends in Jewish Mysticism (Jerusalem: Schocken Publishing House, 1941), 52-53. This passage is from the genre of mystery literature known as the Hekhaloth, so called because they
Nor were Islamic poets blind to the rainy allure of Proconnesian marble. Milwright has adduced a eulogy by the ninth-century poet Buhturi on a Samarran palace, in which he writes that it was:

As if the glass walls of its interior
   Were waves beating upon the seashore;

As if its striped marble, where its pattern
   Meets the opposite prospect, [i.e. bookmatching]

Were streaky rain-clouds arrayed between clouds, dark and light,
   And striped, coming together and mingling\textsuperscript{81}

But these pan-Mediterranean water-metaphors had no impact on mosque floors, both because they had to be covered with matting to accommodate the five daily prostrations towards Mecca, and because the Mosque is essentially a prayer-hall with no pretensions to housing the divine presence nor portraying the end of days. In the Great Mosque at Damascus it is the revetment surrounding the Mihrab (\textbf{fig. 5.22}) which came to be known as “foam of the sea,” not the floor.\textsuperscript{82} In Islamic and Judaic lore, in


Midrashim and even the Qur’an, the image of the watery floor is more commonly found in descriptions of palace interiors. Because God’s throne stood over a glassy floor, so did Solomon’s, and when the queen of Sheba entered his palace she too was fooled that its marble floor was a pool of water. The crystal walls and watery floor of Solomon’s palace would in turn exercise their rule over those sovereigns who wished to emulate the paragon of god-given kingship, and it has remained in the imagination until almost the present day. A glass pavement was even built, in Syria, in the late-eighth or early-ninth century, and the Qur’anic verses describing the glass floor frequently decorate the walls of medieval palaces with complex illusionistic or vitreous ornament, the Alhambra being an especial case in point. They also existed in western palaces, or at

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83 Grossmark, “Shayish,” 278; Eli Yassif, Sipure Ben Sira bi-Yeme ha-benayim: mahadurah bikortit u-firke mehka (The Tales of Ben Sira in the Middle Ages) (Jerusalem: Hotsaat sefarim al shem Y. L. Magnes, ha-Universitah ha-Ivrit, 1982), 50-56; the Ma’ase Malkah Sheba by Saadya ben Yosef (1702), cited in Lou H. Silberman, “The Queen of Sheba in Judaic Tradition,” in Solomon & Sheba, ed. James B. Pritchard (New York: Phaidon, 1974), 70-71. The story is echoed in the Qur’an, Sura 27:44-46 (“she thought it a pool and uncovered her legs. [Solomon] said, ‘It is a palace paved with glass’”). A passage from the medieval Arabic travelogue The City of Brass, which could be a garbled account of a (possibly) 7th-century visit to an abandoned Roman city, the inner hall of the Palace “was made of gleaming marble inlaid with precious stones, so that the spectator got the impression the floor was streaming water, and whoever walked upon it slipped. But the emir told the sheik to strew something on the floor, so they could cross it;” Mia Irene Gerhardt, The Art of Story-Telling: A Literary Study of The Thousand and One Nights (Leiden: E. J. Brill, 1963), 205, 4, 48-49. I am indebted to Tziona Grossmark for supplying these additional references.


least poets imagined that they did. Likewise the tenth/eleventh-century *Digenis Akritis*, a Byzantine ballad strongly infused with Islamic influences, imagines that the craftsman “paved the [palace] floor with onyx that had been so highly polished that onlookers thought it was water frozen into ice.”

**A Classical Sea: The Temple of Zeus, Olympia**

There were arguably classical precedents for the marine floor of Hagia Sophia, but the most powerful was the cella of the Temple of Zeus at Olympia (figs. 5.30-31), housing the most famous Chryselephantine statue in Greece, perhaps the most famous statue in any material, Phidias’ enthroned Zeus (c. 430/420 BC). Upon its completion Phidias had the floor in front of the massive effigy dug out and “paved, not with white, but with black stone, [and] in a circle round the black stone [ran] a raised rim of Parian

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86 A poem written at the beginning of the 12th century by Baudri de Bourgueil (1045/46-1130), archbishop of Dol, to Adèle, Comtesse de Blois, describes the elaborately cosmographic floor in her audience hall: “it was completely covered by a glassy surface: the surface itself was called ‘the glassy sea,’ and its material was as clear as if not clearer than glass; lest the hostile feet of visitors crush it, it was supported by marble set below. The work was girdled by a fluid and green color, that you would think it the work of the sea in movement. This work took the name and the form of the ocean” (“Tota fuit vitrea tecta superficie: / ipsa superficies vitreum mare nomen habebat, / lucida materies lucidiorque vitro; / hanc ne proteret pes invidus ingredientum, / sustentabatur marmore supposito. Cingebatur opus fluido viridique colore, / ut maris esset opus quod fluitare putes. / Hoc opus Oceani nomen formamque gerebat” *Carm.* 134. 728-735); Jean-Yves Tilliette, ed., *Baudri de Bourgueil. Poèmes*, 2 vols. (Paris: Les Belles Letres, 1998), 2: 23; Xavier Barral i Altet, “Poésie et iconographie: Un pavement du XIIe siècle décrit par Baudri de Bourgueil,” *Dumbarton Oaks Papers* 41 (1987): 42. The throne-room that William of Oldenburg witnessed in the aforementioned crusader palace in Beirut (above, note 23) was probably another materialization of this idea.

marble, to keep in the olive oil that spreads out there.”

88 Pausanias, the Greek travel-writer who wrote these words, saw the whole ensemble about six hundred years after it was built, and went on to explain that the film of oil overlaying the slabs served as a dehumidifier, preventing the effigy’s wooden armature from warping and thereby sloughing its ivory skin. But this preventative function of olive oil has no basis in actual physics, and it is difficult to believe that the Greeks, whose stable crop was olive oil, would have believed that it did either. A trickle of dissenting voices has instead recognized that the viscous oil was actually meant to transform the black surface into a huge, seamless mirror.


Pausanias goes on to explain that the water-pool fronting the chryselephantine statue of Athena in the Parthenon functioned as a humidifier because “the Acropolis, owing to its great height, is over-dry.” Actually the Parthenon reflecting pool presumably increased the impact of the Athena or, as Faya Causey has pointed out to me, made available details of Athena’s shield. But, one might additionally suspect a connection with the mythical competition between Poseidon and Athena over the Acropolis. Thus, Pausanias relates that there was a sea-water [sic] cistern under the Erechtheion which was “remarkable for the noise of waves it sends forth when a south wind blows” (1.26.5). He also records in passing that “there is an old legend that sea-water (θαλάσσης χύμα) rises up in the sanctuary [of the Horse Poseidon at Mantinea]. A like story is told by the Athenians about the wave (τὸ χύμα) on the Acropolis, and by the Carians living in Mylasa about the sanctuary of the god called in the native tongue Osogoa” (8.10.4; Loeb ed. trans. W. H. S. Jones).

Finally, the pools of Olympia and Athens seem almost gendered, with diverging proprieties for “dark-browed” Zeus and “grey-eyed” Athena.
It was said that the Zeus seemed so alive that he almost moved, that if he arose he would knock off the temple roof, and his shimmering materials purveyed a hyper-reality of heavenly appearances.\(^9\) The black pool meant that he was visible but untouchable, and encircling parapets barred access to the poolside itself to beat the bounds of the supreme god’s precinct. The floor, like the later *Lapis Niger* in Rome,\(^9\) became hallowed ground because one literally could not step on it. Zeus occupied his own kingdom, and by reflection resided in a personal abyss of incomparability, the materials bracketing the range of creation from Olympus to Tartarus.\(^9\) Even the curb of the pool seemed to undercut the internal columns of the cella, pulling the rug from under the whole edifice.\(^9\) Zeus loomed over a great divide, not of dead blackness (*ater*

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\(^9\) Strab. 8.3.30. The statue was seven times life size, at about 42 feet (13 m).

\(^9\) The *Lapis Niger* paving is also not marble but probably “palombino” limestone from Tolfa, outside Rome: Mario Fornaseri et al., “‘Lapis Niger’ and Other Black Limestones Used in Antiquity,” in *The Study of Marble and Other Stones Used in Antiquity*, ed. Yannis Maniatis et al. (London: Archetype Books, 1995), 235-42. It is thought to date from either Caesar’s or Sulla’s time and was surrounded by a marble barrier. It is not clear whether the black stones here indicated that the site was *nepas* or sepulchral. It was most frequently considered to cover the tomb of Romulus, or site of his death, but has also even been identified with the *Volcanal*, the shrine of the infernal gods: Filippo Coarelli, *Il Foro Romano. Periodo repubblicano e augusteo* (Rome: Quasar, 1985), 195-98; Idem in Eva M. Steinby, ed., *Lexicon topographicum urbis Romae*, 6 vols. (Rome: Quasar, 1993), 4: 295-96; 5: 210.

\(^9\) On the Acropolis in Athens Mnecicles had used the same, dark, Eleusinian stone liminally in the Propylaia, and dark stones would become a feature of the jambs and thresholds of several 4\(^{th}\)-century buildings. In the Propylaeon, the height of the internal (Eleusinian marble) dado makes up the difference between the level of the Acropolis proper and the external ramp, so that crossing this space is visually like wading through a pool.

Cf. Lucy T. Shoe, “Dark Stone in Greek Architecture,” *Hesperia, Supplement 8* (*Commemorative Studies in Honor of Theodore Leslie Shear*) (1949): 341-52. Shoe’s hypothesis that Mnesicles used a dark stone step within the Propylaeon as a “warning sign,” to prevent visitors dazzled by sunlight from tripping up, is as improbable as it is much repeated.

\(^9\) The temple was begun c. 470 B.AD, the shell complete as early as 457. The original floor had to be removed to make way for the shallow pool. The oil surface was probably nearly flush with the surrounding white curb, which was cut to give the illusion of underlying the columns. The barrier ran across the *cella* between the second pair of columns. An exacting survey is in Fred Forbat, “Der Fußboden
or μέλας), but the brilliant black of raven-blue reflections (niger or κυάνεος) that suggested hidden depths and even the unformed, bottomless darkness that all Mediterranean myth associated with primeval chaos. The overall effect is characterized in the text of yet another age, the Hypnerotomachia (1499), where Polifilo enters the amphitheater to find

the whole pavement of the arena... seemed to consist of a single, solid Obsidian stone of extreme blackness and invincible hardness, so smooth and polished that at the first step I withdrew my right foot, fearing that I was about to fall into the abyss and perish... In this clear stone one could see the limpid profundity of the sky perfectly reflected as in a calm and placid sea, and otherwise everything around or above it, much better reflected than in the shiniest mirror

The tradition was far more ancient still than Olympia. In some Egyptian temples that predate Phidias by two millennia, black basalt pavements were probably “associated with structuring the space as a microcosm: a point where contact is possible between earth (the sphere of the living), represented by the black material, and the


celestial zone represented by the light color of the upper walls and the ceiling which was painted with yellow stars on a blue ground.” At least one of these floors was actually open to the sky.

Phidias no doubt intended to achieve the same effect as would the British sculptor Richard Wilson in 1987, when he filled a whitewashed art gallery with recycled sump-oil to create a space “where the internal volume is greater than its physical boundaries” (fig. 5.32). Wilson’s illusion is faultless, the entire space pleated by a horizon of a hair’s breadth, and when the spectator ascends the Corten steel ramp excavated in its midst the experience is like mounting a diving-board.

Wilson’s installation is lit only by the soft light from a saw-tooth roof above. Phidias’ statue of Zeus must originally have been lit by candelabra and hanging lamps, of whose arrangement we now know nothing except that the oily mirror would have reflected these supernatural spotlights. Neither Zeus nor his father presided over Chaos, and the splendid isolation so skillfully engineered is more likely to mirror the supreme ruler’s throne in the heavens. W. R. Lethaby, the only observer yet to offer a truly imaginative alternative to Pausanias’ explanation, ventured that “it must have

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resembled the deep still sea, the sea of heaven which bore the throne of Zeus, and in which the stars floated."\(^{97}\)

The Egyptian, Greek and Byzantine floors, as well as Richard Wilson’s equivalent at the Saatchi Gallery, share a common premise, however much they differ in execution and degrees of polish: still waters run deep. These liquid surfaces dissolve the floor and make the rock-bottom drop out of the world of the spectator, who is then induced to tread a precarious line through extraterrestrial space. More particularly, in the case of Hagia Sophia, the conjunction of marble and sea explicitly collapses the antitypes of creation, sea and mountain, into one horizon on which human finitude is set between lucid firmness and umbrous chaos.

Book-matching also meant that the stony sea in Hagia Sophia emerged from an ordering that was innate. In this technique the quarried panels were sawn in half parallel to their surface, and the “unfolded” panels set edge to edge so that their veining would create symmetries into which the receptive spectator could read images exactly like Rorschach’s inkblots. More often than not such confections suggested images of human figures, but in this case they actually figured another substance, water. This miracle of art erased the indices of facture, and helped sacralize the interior by assimilating the new creation to the product of artful Nature, not the artwork of hands.

\(^{97}\) Lethaby, *Architecture*, 179. Morgan saw the purpose of the pool as periscopically uplighting the statue with daylight borrowed from the *cella* entrance portal (Morgan, “Pheidias,” 316-18). But Graham points out that a black floor would absorb light rather than reflect it: “Phidias installed the pool of olive oil at Olympia to provide a reflecting surface in which the statue would be mirrored. Quite possibly he came to appreciate the aesthetic effectiveness of this only after he had... constructed the pool of water in the Parthenon. Later when he came to design the Zeus at Olympia he increased the brilliance of the reflected image by laying the floor underneath the pool of oil in black stone; he also built a gallery above the aisles of the temple to obtain a higher vantage-point for viewing the statue, and from this level the reflection would have been even more effective;” Graham, “Acropolis,” 80-81.
No figural imagery appeared in Hagia Sophia’s mosaics before the ninth century so, in short, this was an aniconic floor for an aniconic church. The floor therefore avoided any of the pagan connotations of the personified “Sea” which is, for example, the focus of the church of the Apostles at Madaba (578-579) (fig. 5.33). But although the image-less paving preordained no specific narratives, its received materiality and fundamental situation virtually predestined a proper range of reference.

For a start, the worshiper who headed across the waters to the sanctuary in Hagia Sophia, or Grado for that matter, retraced the steps of Peter in his march of faith across the stormy Sea of Galilee to meet Christ “the rock” (Mathew 14.29). Christ had quelled the chaotic waves of this sea just as His Father had stayed those at Creation.

To slip beneath the surface would be to fall from God’s favor, to await like Jonah reclamation from the depths, and several odes in the later Byzantine canon call upon

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99 In fulfillment of Job 9. 8: “Who treadeth upon the waves of the sea.” Cf. the inscription that Venantius Fortunatus composed for the Oratory of Traslaric in Gaul, Carm. 2.13.3-4: “This is the hall of Peter who locks the heavens with a key and under whose steps the sea stood firm as a stone” (“Haec est aula Petri caelos qui clave catenat / substitit et pelagus quo gradienti lapis;” Marc Reydellet, ed., Venance Fortunat. Poèmes (Tome I, Livres I-IV), 2 vols. (Paris: Les Belles Lettres, 1994), 69). At line 10 Venantius writes that the church “melts the shadows of the world and grasps the stars” (“tenebras mundi liquit et astra tenet”).
salvation in paraphrases of Jonah’s prayer in the belly of the whale. Moreover, it was with this biblical event in mind that a ninth-century chronicler would have us believe that Galla Placidia, after shipwreck in 424, built a new church to St. John the Evangelist in Ravenna. Below mosaics depicting her perils on the open sea she had a pavement laid that was undosum undique mare: “everywhere a wavy sea,” as though it were “stirred by the winds, to produce the image of a tempestuous storm.” In S. Marco, pausing at the crossing is like waiting before the glassy sea of God’s throne-room. The same was once true for the abbey church of Montecassino, which hoped to surpass Hagia Sophia and whose floor was probably laid by Constantinopolitan craftsmen (fig. 5.5). As Alfanus of Salerno’s poem on its splendors sings: “Here the green and porphyritic stones make the alabasters shine; and at the same time the Proconnesian

100 Ode 6, Tone 3, oikos 1, orthros on Sunday morning: “Enveloped by the bottomless depths of my sins, I sense my life ebbing away. O Master, lift up Your hand and stretch it over to me; save me as You once saved Peter, O You who walk upon the waves.” Ode 6, Tone 3, oikoi 1 and 3, orthros on Tuesday morning: “I am drowning in the depth of sin. The sea of life is passing over me. But as Jonah came forth from the whale, so bring me up from the abyss of the passions and save me, O Lord… I am tossed on a storm of passions; but as You once ordered the waves to be calm of old and saved Your holy Disciples, O Christ Jesus, so extend Your hand to me and save me.” Cf. Ode 6, Tone 6, orthros on Sunday morning. All in The Great Octoechos, 4 vols. (Boston: Sophia Press, 1999): 1: 23-24, 230-231; 3: 192-193. These prayers date between the 9th and 12th centuries. Thanks go to Peter Galadza for raising these passages.

101 “iubet Augusta ubique naufragii sui praesentari formam ut quodammodo tota operis facies reginae pericula loqueretur. Pavimentum undosum undique mare, quod, quasi ventis agitatum, procellosae tempestatis gerit imaginem;” Tractatus Aedificationis et constructionis Ecclesiae sancti Johannis Evangelistae de Ravennae in Alessandro Colombo and Giuseppe Colombo, eds., Anonymi Mediolanensis Libellus de situ civitatis Mediolani: de adventu Barnabe Apostoli et de vitis priorum pontificum Mediolanensium (Bologna: N. Zanichelli, 1941), 567-72. On S. Giovanni Evangelista: Deichmann, Ravenna, 2.1: 93-124, with comparative texts at 107-124. Mosaics on the prosenium arch showed Galla Placidia in her storm-tossed galley (on the “mare vitreum,” presumably a mosaic sea, but still an odd choice of words) and inscriptions recorded the ex-voto dedication. The floor may have resembled that at Grado, although this 9th-century chronicler might also be describing a later, proconnesian replacement. No traces are now visible.

Cf. Psalms 65:5, 7: “O God of our salvation: who art the confidence of all the ends of the earth, and of them that are afar off upon the sea… which stilleth the noise of the seas, the noise of their waves.”
paving matches these marbles to each other in such a way that this work may become a glassy sea."\(^{102}\)

For others Hagia Sophia’s floor recalled the words of Job. The lector who chanted the Kontakion (homiletic anthem) upon its second inauguration on Christmas Day 562, from the ambo in the middle of the “sea,” told the masses that “in the beginning the firmament solidified in the midst of the waters... with a flowing substance, as it is believed to be, above it... But here things are better and utterly wonderful: no flux, for the favor of God is the foundation on which rests the temple of God’s Wisdom.”\(^{103}\) The lector sang in lucid, contemporary Greek but when Paul the Silentiary lectured to the more select crowd of emperor and patriarch a few weeks later, from some gallery-vantage overlooking the “sea,” he declaimed Homeric hexameters.\(^{104}\) The linguistic shift


\(^{103}\) Oikos 7: ‘Απ’ ἄρχης γεγονός τὸ στεφάνι τῶν ὑδάτων ἐν μέσῳ ἐπάγη... καὶ ἐπάνω αὐτοῦ ὑγρὰ φύσις <ῶς> εἶναι πιστεύεται... ἀλλ’ ἐνταῦθα τὰ μείζονα καὶ προδῆλας ὑπερθαύμαστα: ἐν ἀρρενίστῳ γάρ εὐδοκία θεοῦ τεθημελισται ὁ ναὸς τῆς <θεοῦ> Σοφίας


\(^{104}\) Paul’s ekphrasis of Hagia Sophia was likely given at Epiphany (6 January) 563, that of the ambo some days later. Christ’s baptism in the Jordan was commemorated on the same day. See Mary Whitby, “The Occasion of Paul the Silentiary’s Ekphrasis of S. Sophia,” The Classical Quarterly 35, no. 1 (1985): 217 and note 18. 31 December 562 has also been suggested: Ruth Macrides and Paul Magdalino, “The Architecture
reflected a revived republic of letters and the court culture that sponsored them, but it was also a timeless, epic voice rising to the heroic ambitions of the edifice, and one that simultaneously sought to harmonize Greek and biblical antiquity. Describing the tides of the populace that virtually assault the priest in their fervor to reach the Word (Scripture, but at the place of the spoken word, the pulpit) Paul draws not only on Homer’s figure of waves of Achaians besieging Troy, but also the common sermonizing metaphor of the fertile island of the church as a “rock of faith” in a raging sea of sin. Likewise, when Paul speaks of the voyage of the faithful across the sea to the safe haven of the sanctuary, he calls upon a tradition as old as classical literature itself, referring not only to life’s travails but even the struggles of literary composition. It is all the more appropriate that Paul declaims in the voice of the Odyssey, for this was an epic that even classical commentators suspected lay beyond the domain of factuality (exokeanismos) since Odysseus’ wanderings took place on that immense Ocean, which lay beyond earth’s limits and touched the heavens. And, when the lector of the Kontakion describes the windows of Hagia Sophia as “spiritual luminaries fixed to the divine firmament,” he adds that they enlighten “in the night of life those drifting about on the ocean of sin.” Paul the Silentiary even thinks that the church surpasses the Pharos of Alexandria. We have every right to suspect that both authors juxtapose the

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106 *Descr. S. Sophiae* 921-933.
still waters of the church interior with the peripheral territory of sin as ocean in which
even the best sailor may lose his course,\textsuperscript{107} words that reverberated with Hagia Sophia’s
actual siting, a man-made mountain that dominated the straits of the Bosphorus and the
Sea of Marmara.

\textbf{Coda: English architecture and neo-Byzantinism}

Bernardo Bonsignori is the last western traveler to have recorded the patterns of
Hagia Sophia’s marine paving, but even before it returned to actual view in 1934 it
resurfaced in the western consciousness through Hammer-Purgstall’s quotation of
Pseudo-Codinus in his 1822 guide to Istanbul and its environs.\textsuperscript{108} Thus, when the
British architect George Edmund Street (1824-1881) visited Venice a few years later, he
remembered the book’s passing description of the floor of Hagia Sophia as a stormy sea,
and took the metaphor as evidence that the rising and falling surface of S. Marco’s
much settled floor was intentional.

\textsuperscript{107} \textit{Oikos} 9: Νοητοὺς φωστήρας εἰς τὸ θεῖον στεφέωμα: προσπαγέντας; κατασκόξοντας δ ’ ἐν τῇ τοῦ βίου
νυκτί τοὺς εἰς τὸ πέλαγος πλανοφένους τῆς άμμοτίας.

The expression “sea of troubles” (θάλασσα [or πέλαγος] κακῶν) exists also in classical Greek:
Aesch. \textit{Theb}. 758; Pers. 433.

\textsuperscript{108} Joseph von Hammer-Purgstall, \textit{Constantinopolis und der Bosporus, örtlich und geschichtlich Beschrieben}, 2
vols., (Vienna: Anton Strauss, 1822). I take this on the word of Lethaby, who claims that Street was
inspired by Von Hammer, although I have been unable to find the exact passage. In 1934 Hagia Sophia
became a national museum, at which point the carpeting came up. See the 19\textsuperscript{th}-century photographs of
the interior in Volker Hoffmann, \textit{Die Hagia Sophia in Istanbul. Bilder aus sechs Jahrhunderten und Gaspare
Fossatis Restaurierung der Jahre 1847 bis 1849} (Bern: Peter Lang, 1999), 222, 34-35. The fact that Hagia
Sophia’s floor was covered explains how, in 1544, Jérome Maurand could claim with impunity that “the
floor is made from great circles and flowers of serpentine and porphyry and from a certain black stone
that shines like a mirror” (“il salegato è fatto a tondi grandi e fiori di serpentina, porfidi, et de una certa
preda negra lucente como espechio”): Léon Dorez, ed., \textit{Jérome Maurand. Itinéraire d’Antibes à
Constantinople}, 1544 (Paris: E. Leroux, 1901), 244.
In Venice this idea was nothing new. Since at least the mid-eighteenth century ciceroni had been telling Grand Tourists that sea-legs were needed to cross S. Marco’s shifting floor. But Street became so infatuated with the notion that Venetian masons had crafted the undulations of this paving that he lectured publicly on the subject in 1859, and in 1879 his unwavering faith in its authenticity led him to lobby the Italian government against proposals to re-lay the floor. He was too late to save the left aisle, which is noticeably smoother, and the controversy raged beyond his death into the late 1880s. It was in the eye of this political storm, according to Richard Ormond’s new dating, that John Singer Sargent painted an internal view of S. Marco and devoted over half the canvas to a moist and lilting floor (fig. 5.34).

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Arthur E. Street, Memoir of George Edmund Street, R.A. 1824-1881 (London: John Murray, 1888), 248-54. G. E. Street published a column in The Times, reaffirming his undulating floor theory. This was contested by a certain Mr. Fowler, who observed that the floor had simply subsided. In 1886 the question of the paving resurfaced when the Secretary of the Society for the Protection of Ancient Buildings once more protested its restoration.

111 The Pavement, Collection of Mr. And Mrs. Steven J. Ross: Patricia Hills, ed., John Singer Sargent (New York: H. N. Abrams, 1986), 68, fig. 43. The painting is normally dated to 1898, but Richard Ormond (Catalogue raisonné, vol. 4, Early Landscapes and Figure Subjects, New Haven: Yale University Press, in press) redates the painting to c. 1880-82. He kindly informs me that it had been dated much later in Sargent’s career on the basis of its fluid paintwork. My thanks to Ted Dalziell for bringing this painting...
“Instead of being laid level and even” Street says, the floor “swells up and down as though its surface were the petrified waves of the sea, on which those who embark in the ship of the church may kneel in prayer with safety, the undulating surface serving only to remind them of the stormy sea of life.” It was for the same stated symbolism that John Francis Bentley (1839-1902), architect of London’s neo-Byzantine Westminster Cathedral (begun 1895), came to design its floor as a Proconnesian pool darting with every variety of fish that was, he said, “promised to St. Peter’s net” (fig. 5.35). Street and Bentley were reckoning not just with the heritage of Marmora but another etymology, the nave as “navis,” or the ship and its cargo of souls on life’s sea of troubles. Whether they knew it or not, the meaning they imputed to the floor was a practiced one that may be found in many church fathers including even the sermons of Chromatius, who was Bishop of Aquileia around the turn of the fifth-century and therefore delivered his elaborate sermons overlooking the cavorting fish and fishermen in that nave.

and the following passage to my attention. “What I remember chiefly is the straightening out of that dark and rugged old pavement – those deep undulations of primitive mosaic in which the fond spectator was thought to perceive an intended resemblance to the waves of the ocean. Whether intended or not the image was an image the more in a treasure-house of images; but from a considerable portion of the church it has now disappeared,” Henry James, *Italian Hours* (London: W. Heinemann, 1909), 9.

112 George Edmund Street, *Brick and Marble in the Middle Ages: Notes of Tours in the North of Italy* (London: John Murray, 1855), 159-60.

113 Winefride de L’Hôpital, *Westminster Cathedral and its Architect*, 2 vols. (London: Hutchinson & Co., 1919), 1: 126-29. In the event Bentley’s 1901 design was considered too frigid for northern climes and a parquet floor went down instead. Bentley’s design would also have cost £18,000. The marbles may have already been ordered and, if so, may have ended up in Surrey House, Norwich (1901-4): Patrick Rogers, *Westminster Cathedral. From Darkness to Light* (London/New York: Burns and Oates, 2003): 7-9. Bentley and his mason Brindley – and many still today – were apt to apply the term “cipollino” to Proconnesian and Carystian alike. On the cathedral’s marbles: Rogers, *Westminster*: 43-76.

Bentley himself drew his ideas directly from William Richard Lethaby (1857-1931), who quoted Street on the floor of S. Marco, albeit not in complete agreement. Strangely, the watery floor figures only passingly in Lethaby’s *Sancta Sophia in Constantinople* (1894) but it had been a prime example in the chapter he wrote “On Pavements as Seas” in his *Architecture, Mysticism and Myth* of 1891. Lethaby’s book was intended to proselytize architects and general public alike and was therefore devoid of footnotes, but it assembled what Biblical, Classical, Byzantine and Arabic sources he knew or were translated for him by friends, to argue that floors had often been conceived as “seas.” Lethaby’s academic colleagues paid no attention to his observations and they have languished in the doldrums ever since. But they did catalyze a band of younger architects at the close of the century to seek some exit from the sterility of Victorian historicism by plumbing the mystic potential latent in architectural representation. Some of these younger men were inspired to seek out the arts and crafts of the Byzantine mason in situ. William Sykes George (1881-1962), for

pisciculi secundum ichtyn nostrum Jesum Christum in acqua nascimur, nec alter quam in aqua permanendo salvi sumus.” Street did know of Galla Placidia’s stormy floor as he quotes the passage in his letter to *The Times.*

115 Lethaby, *Architecture,* 168-83. Lethaby and Swainson, *Sancta Sophia,* 79-80. Lethaby did not know the actual floor, which was still covered. Instead he based his observations on the floor in the gallery over the narthex. Bentley spent five months in Italy (1894–5), evolving his design based on the “Italo-Byzantine” style of the 6th century. He did not reach Constantinople because of an outbreak of cholera but remarked, “San Vitale, Ravenna, and Lethaby’s Book told me all I wanted.”

example, produced under the patronage of the fourth Marquess of Bute a meticulous survey of Hagios Demetrios in Thessaloniki before the disastrous fire of 1917.117 Robert Weir Schultz (1860-1951) published several texts on Byzantine art at the turn of the century (fig. 41), and took part in an extensive photographic survey of Byzantine monuments of Greece, the plates of which have only recently come to light.118 Schultz in particular became an aficionado of Lethaby, and later wrote that the latter’s book “opened up to us younger men a hitherto undreamed of world of romance in architecture… I was about to do a small private chapel, into it went a pavement like the sea and a ceiling like the sky, as an accepted tradition.”119 Schultz, in fact, designed and executed at least two marine pavements (both for the Butes), one of which survives in Westminster Cathedral (figs. 5.37-38).120


118 Schultz was a member of the British Archaeological School in Athens in 1888-1891. He collaborated with Ernest A. Gardner on Excavations at Megalopolis, 1890-1891 (London: Macmillan, 1892); with Sidney H. Barnsley on The Monastery of Saint Luke of Stiris, in Phocis, and the Dependent Monastery of Saint Nicolas in the Fields, near Skripou, in Boeotia (London: Macmillan, 1901), wrote “Byzantine Art” in the Architectural Review (1897), and edited The Church of the Nativity at Bethlehem (London: B.T. Batsford, 1910). Schultz and Barnsley’s photographic plates went missing after the Second World War but were fortuitously rediscovered by me during email correspondence with Dr. Paul Taylor of the Warburg Institute, London, in whose photographic archive the plates have lain unnoticed for fifty years.


120 The first chapel was built in 1893 for the third Marquess of Bute in the grounds of his townhouse, St. John’s Lodge, Regents Park but destroyed in 1959. The Chapel of St. Andrew, Westminster Cathedral was built in 1910-15 at the expense of the fourth Marquess: L’Hôpital, Westminster, 1: 163-67; David Ottewill, “Robert Weir Schultz (1860-1951): An Arts and Crafts Architect,” Architectural History 22 (1979): 92, 93;
Most of this chapel’s floor is taken up by book-matched paneling, but this is skirted by a meander, signifying the ocean as the stream that encircles the earth and marks its limits, along which marble fish and crabs zodiacally swim to clinch the particular aquatic nuance of the chapel, its dedication to St. Andrew as “fisher of souls.” The design may now seem an overly-literal reclamation of tradition, somewhat cartoonish, even a bit of a “cold shower,” as the critic of the London Times put it on its unveiling in 1915. But inlaid marble fish had once ornamented the pavement of the Pantokrator in Istanbul, and the year of the Westminster floor’s inauguration witnessed the unearthing of an unforeseen prototype at Nikopolis (Actium) in western Greece (fig. 5.39).\textsuperscript{121} The transept floor of the Basilica of Doumetios (c. 525/550) is also encircled by highly realistic, mosaic streams with fish, water birds and even fishermen, and

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Gavin Stamp, Robert Weir Schultz, Architect, and his Work for the Marquesses of Bute: An Essay\textit{ (Rothessay, Isle of Bute: Mount Stuart, 1981), 19-20, 60-63. Cf. Architectural Association Journal, 73, June 1957. The floor symbolism was reported in The Builder, 10 December 1915, 422-423; William Curtis Green, “Recent Decorations at the Roman Catholic Cathedral Westminster,” The Architectural Review 40, no. 236 (1916): 7-12. The Builder included a watercolor plan of the Westminster pavement, republished in Backemeyer and Gronberg, eds., W. R. Lethaby, 83 (cat. no. 95). Building News, 1 December 1915, 615. Most reviews of the work were highly favorable, but the man from The Times compared entering the chapel to being in a bathroom and “up to the neck in cold water.” Diametrically opposite is the anecdote of how an exhausted and perspiring William Brindley only hunted down his quarry – cipollino – after regarding the moist imprint of his own posterior on a rock face (kind reference of Nicholas Penny).


Schultz had probably also noticed the publication of the monochrome mosaic floor (late 12\textsuperscript{th}/early 13\textsuperscript{th} century) of the chancel of S. Salvatore, Turin, excavated in 1909, on which various roundels are enclosed by an orbital Ocean: Toesca, “Vicende,” 1-16; Porter, Lombard Architecture; 3: 442. Note also that Kingsley Porter’s 1915 article on the floor at S. Savino, Piacenza, cites St. Ambrose’s Hexameron to regard the floor’s “ocean and its finny inhabitants… a complete image of the Church of God and of human life,” Porter, “San Savino (II),” 503-04.
\end{flushleft}
conveniently the inscription spells out that “Here you see the immense and splendid ocean that holds in its grasp the earth.”

Conclusion

It may only be coincidence but it is certainly poetic justice that, after the closing of the temples, Phidias’ statue of Zeus came to be transferred to the Palace of Lausus in Constantinople only a few streets away from Hagia Sophia. The effigy was consumed by fire in 475 AD, half a century before the memory of its original location could have had any influence on the articulation of the Hagia Sophia, but the effigy had already infiltrated Byzantine consciousness by becoming the most popular model for the Pantokrator, the colossal face or half-length figure that once looked down from the domes of all Byzantine churches.

The phantom of Phidias’s statue also haunts Washington DC, since at the end of the Mall Abraham Lincoln sits enthroned in a Greek temple at the head of a reflecting pool at the scale of the city. But to one side lies a monument that provides an


unconscious example of the transmissions which this chapter has explored, of materiality, the ideas that materials carry with them, the substances they represent and the sensations they provoke. The Vietnam Memorial (fig. 5.40) is dedicated to all Vietnam veterans, living and dead, and in its most sepulchral aspect makes the most direct claims on the earth, a coal-face as it were, whilst also literally providing a place for reflection. It is an experience accessible to all who visit the memorial and feel that somehow they gaze past its surface back into the past, or laterally into a parallel world.

Appendix 5

1) Paul the Silentiary on the Ambo of Hagia Sophia (563)

And as an island rises amidst the waves of the sea, adorned with cornfields, and vineyards, and blossoming meadows, and wooded heights, while the travelers who sail by are gladdened by it and are soothed of the anxieties and exertions of the sea; so in the midst of the boundless temple rises upright the tower-like ambo of stone adorned with its meadows of marble, wrought with the beauty of the craftsman’s art. Yet, it does not stand altogether cut off in the central space, like a sea-girt island, but it rather resembles some wave-lashed land, extended through the white-capped billows by an isthmus into the middle of the sea, and being joined fast at one point it cannot be a true island. Projecting into the watery deep, it is still joined to the mainland coast by the isthmus, as by a cable...


Here the priest who brings the good tidings passes along upon his return from the ambo, holding aloft the golden book; and while the crowd strives in honor of the immaculate God to touch the sacred book with their lips and hands, the countless waves of the surging people break around. Thus like an isthmus beaten by waves on either side, does this space stretch out, and it leads the priest who descends from the lofty crags of this vantage point to the shrine of the holy table.

2) Michael the Deacon (c.1140/1150)\textsuperscript{127}

The floor is like the sea, both in its width and in its form; for certain blue waves are raised up against the stone, just as though you had cast a pebble into water and had disturbed its calm. This sea has broken out into a gulf to eastward, and one wave having been, as it were, piled up against its predecessor, and another against the next (for thus also does it happen during floods, the ever-approaching wave never allowing itself to be broken by the contrary wind), the sacred Sphendone has been formed into steps, and one step is raised up above another, and the highest steps which curve in billows have been flooded over by an effusion of silver worth many talents.

\textsuperscript{127} Mango and Parker, “Twelfth-Century Description,” 237, 39 (ll. 73-78, 156-74).
Chapter 6: Vanity and the Ideal Church

Chapter 6
Vanity and the Ideal Church:
Geometrical Durham and Parian Romanesque

Vanitas

From the moment that colored marbles began to enjoy any popularity, they numbered amongst all those worldly chimaeras that distracted humanity from its inevitable demise. As Horace cautions,

Neither ivory nor gilded
   Coffers gleam in my home
Nor do beams of Hymettan marble
   Rest on columns quarried in farthest Africa…
You order marbles to be cut,
   Though you are at the point of death,
Oblivious, you build a palace

Moreover, not only did this obsession with luxury distract one from one’s end, but marble could actually hasten it along. Agathias’ rather malicious account of the untimely end of an imperial chamberlain in the Constantinopolitan earthquake of 558 AD confirmed that the moral, even mortal, perils of marble luxury had never receded:

Anatolius was sleeping at the time in his customary bedchamber. The apartment was adorned with a variety of marble plaques attached to the wall, of the kind that are lavishly and ostentatiously displayed by those who are inordinately fond of such superfluous and unnecessary bric-à-brac. One of these plaques, which was fastened to the wall next to the bed, was shaken loose from its fittings and wrenched off by the violence of the tremors. It came down with all its weight on his head, and smashed his skull. He had barely enough time to utter a deep and muffled groan

of pain and then sank back on his bed. Death had overtaken him.²

Reading between the lines, the underlying irony becomes obvious: Anatolius’ bedroom has become his sepulcher. This symmetry was easy enough to apprehend. Mausolea had reached the grandest proportions and received the most lavish decorations two or three centuries earlier, and other homes for the patrician dead, like the third- and fourth-century sepulchral cubicula in Italian catacombs, were often indistinguishable from those for the living (see Chapter 2; fig. 2.12). In effect, Agathias echoes Augustine’s much earlier critique of the élite preoccupation with building marbled tombs, that ultimately they were just as futile as the mansions they erected themselves in life. Neither could live up to the rewards of eternity. “I have a marbled home,” Augustine says, “which I will leave, and I do not dwell on my eternal home where I will be always.”³

Even Christian emperors had to come to terms with the vanity of marble for their own tombs, “the only things left of those Roman Emperors of old who boasted of glorious deeds… their coats of stone, those cold and last garments.”⁴ Early emperors like Nero and Hadrian had been buried in porphyry caskets and emperors from Constantine onwards again sought to steep themselves in the purple for eternity with enormous sarcophagi of the same stone.⁵ But within a

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³ “habeo marmoratam domum quam relicturus sum, et non cogito mihi aeternam domum ubi semper ero” (Augustine, Enarratio in ps. 48; PL 36, col. 554).

⁴ Harry J. Magoulias, O City of Byzantium: Annals of Niketas Choniates (Detroit: Wayne State University Press, 1984): 263. This metaphor “to put on a coat of stone” may be found in the Iliad.

⁵ As Theodora says to Justinian, quoting Isocrates, “Empire is a fair winding-sheet” (Procop. B. P. 1.24.33-38; Isoc. Archidamos 45). For the sarcophagi: Neslihan Asutay-Effenberger and Arne
century and a half of Constantine’s accession could no longer count on even this cold comfort. Weakening borders and dwindling resources soon meant that outlying quarries like those of Mons Porphyrites were luxuries the empire could no longer afford.\textsuperscript{6} The last porphyry sarcophagus for a Byzantine emperor, Marcian, was cut in 457 AD.

On the other hand, stockpiles of porphyry must still have been available, though not perhaps the monolithic blocks suitable to an emperor’s sarcophagus, and one wonders whether the decision to avoid the material did not also represent some sort of post-mortem humility. From classical times, the \textit{Servus Publicus} had stood in the chariot of every \textit{Imperator}, and then Emperor, who triumphed through Rome whispering in his ear “look behind you, remember that you are only a man.”\textsuperscript{7} In Byzantium the practice persisted in the public processions of the emperor and his entire court from the palace to Hagia Sophia. In his left hand he held a jeweled cross but his right gripped a gilt wood capsule (the \textit{akakia}) filled with tomb earth, while every two paces a court functionary goaded him, “remember death.”\textsuperscript{8} This moral message carried over into Byzantine

\textsuperscript{6} Convicts were sent to Mons Porphyrites as late as 308: Eusebius in F. Millar, PBSR, 1984.

\textsuperscript{7} Tert. Apol. 33.4: “respice post te, hominem te memento.”

investitures, where the *memento mori* would take the form of marble samples.

Several sources detail the salient ceremony, beginning with Leontios of Neapolis (641-642 AD), who relates that while St. John the Almoner pondered his own mortality he recalled that,

when an emperor is crowned, first of all the members of the guild of tomb-builders have access to the royal presence while the whole Senate and the army are in attendance; directly after the crowning the builders of the imperial tomb come in and bring with them four or five small pieces of marbles of different colors and say to him: “Of which mineral does Your Majesty desire his tomb to be made?” thus suggesting to him that, as a corruptible mortal who soon passes away, he should take thought for his own soul, and govern his kingdom righteously. The blessed man [St. John the Almoner] imitated this truly praiseworthy custom and gave orders for a tomb to be built for him in the place where the previous patriarchs were buried, but to leave it unfinished until his death so that on some great feast-day when the clergy were present, the zealous Christians, as they are called, should come in and say to him, “Your tomb, master, is still unfinished. Allow us, we pray, to finish it because you do not know at what hour the thief will come”

Leontios’ account happens to coincide with the first coronation of an emperor, Constans II, in the ambo of Hagia Sophia (641) but the practice may date back to the late-sixth century, perhaps even earlier. It also persisted for

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several hundred years, as is demonstrated by Ignatius of Smolensk’s eyewitness account of the investiture of Manuel II by the Patriarch Antonius IV in 1392. In fact, by word of mouth or Latin translation, this rite of passage seems also to have made its way West. In the early fourteenth century, the Florentine Dominican Jacopo Passavanti recounts the ceremony in sermons and it came to be incorporated, however briefly, in the papal investiture as well. Aidan of Usk records that at the 1404 investiture of Innocent VII (“just like that of the Emperor”), after the burning of the tallow, which itself symbolized the Gloria Mundi, Roman marmisti offered stones “worked with every artifice,” adding the pregnant question “and from what stone will your tomb be made?” The Pope however, no study of the byzantine coronation, including these, mentions the incident of the stone-cutters.


12 Passavanti (c. 1297-1357), prior of S. Maria Novella, writes: “Il primo di che l’Imperadore di Costantinopoli era coronato, quand’era nella maggior gloria, veniva a lui uno maestro di pietre, e portavali il saggio di quattro marmi di diversi colori, e domandava di qual di quelli più gli piaceva, che si facesse il suo sepolcro; a dare ad intendere, come la memoria della morte dovea temperare la gloria temporale ed imperiale e farlo esser umile,” Jacopo Passavanti, Specchio della Vera Penitenza (Florence: Bartolommeo Sermartelli, 1585): cap. IV; cited in Gnoli, 66-67. Passavanti claims Isidore as his source, but no such passage appears in his writings, and he may have borrowed the story from Leontius.

13 “Prout et in coronacione imperatoris, in summitate gloriae suae, cum omni genere artificio eorum ministrorum cuiuscumque generis et coloris lapides per latamos sibi offerri solet, ita ei clamando: “Excellentissime princeps, de quo genere lapidum vis tibi tumbam fieri?:” Edward Maunde Thompson, ed., Chronicon Adae de Usk, A.D. 1377-1421 (London: Oxford University Press, 1904), 90, 262. The ritual is not mentioned in earlier or later ordines for papal coronations: Cf. Bernhard Schimmelpfennig, “Ein bisher unbekannter Text zur Wahl, Konsekration und Kronüng des Papstes im 12. Jahrhundert,” Archivium Historiae Pontificiae 6 (1968): 43-70; Bernhard Schimmelpfennig, “Die Krönung des Papstes im Mittelalter dargestellt am Beispiel der Kronüng Pius’ II (3. 9. 1459),” Quellen und Forschungen aus italienischen Archiven und Bibliotheken 54 (1974): 192-270. Nor does Burchard mention it for the coronation of 1484, by which time it was presumably obsolete, although there is a lacuna at this point in the manuscript: Enrico Celani and
himself received these ministrations seated in a massive porphyry throne, the infamous *sedia stercoraria*.

In the medieval period marble still embodied a dual valency. While many of the church Fathers vented against its useless vanity it remained nonetheless a prestige symbol par excellence and a material of heavenly character. The Christian ethos was, in fact, continually torn between a desire to exploit the eschatological and honorific character of gold, gems and precious marbles, and a fundamental humility that strove against terrestrial wealth and mundane ostentation. In the eternal city, and every other decaying metropolis of antiquity, the two conditions were all the more obvious. In Rome’s churches and cathedrals lustrous marbles might seem supernatural markers, but in the city at large their veins were dissembled with weathering, and the abandoned and despoiled fora, precincts and circuses that had become marshes and pastures were littered with blocks scorched and cracked in the heat of the city’s numerous sacks. Such decay and spoliation made the ruins monumental vanities, empty tokens of the fall of earthly splendor. In some eyes, the living rock was now just dead stone and numinous stones had become barren idols.  

The city was cannibalizing itself and by the end of the eleventh century, the wrecking crews and lime-burners had

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14 Augustine castigates “omnes qui adorant sculptilia” or “qui adorant lapides” (*Enarrationes in Psalmos XCVI*, 7, 11). Cf. the early 9th-century apologia of Claudius of Turin, an anti-icon/anti-relic/anti-pilgrimage treatise: “Let them adore stones too, because when He was taken down from the cross he was placed in a sepulchre of stone, and the Apostle says of it: Christ Himself was the Stone; (but Christ is tropically, not properly, called stone, lamb and lion in terms of significance not substance” (“Adorentur et petrae, quia quando de cruce est depositus, in saxeo sepulcro est positus, et de illo Apostolus ait: Petra autem erat Christus; (sed Christus petra, agnus, et leo tropice non proprie est dictus per significantiam non per substantiam”): *PL* 105, cols. 459-464, esp. 462.

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Louis Thuasne, eds., *Johannis Burchardi diarium, sive rerum urbanarum commentarii, 1483-1506* (Città di Castello: S. Lapi, 1907-14), 75.
done such a good job that there was even a shortage of good-quality, monumental columns.¹⁵

On the one hand, then, it was right and fitting to use such rich materials to outfit the House of the Lord; on the other, they smacked of worldly corruption. This disparity of signification in turn broached a larger dilemma: whether God was best honored with all the riches that ecclesiastical pomp could muster or whether man was even capable fabricating the House of God; whether, in fact, only a spiritual edifice might properly honor a Deity defined by Spirit.¹⁶ Christian writers in the latter camp took up Seneca’s charge that an inner, spiritual edifice excelled any material counterpart, and Cyprian, Augustine, Caesar of Arles and others encouraged the faithful to disregard the splendor of marble walls and gilded ceilings and instead embellish their souls as temples of God illumined and painted by virtue.¹⁷

The dilemma between external and internal architectures, overt splendor and internal brilliance itself depended on a larger ambiguity as to the nature of beauty. It was of two kinds: a sensuous quality of a material object that seduced the physical eye; and the intangible, imperceptible but not entirely insensible, moral beauty which was the ornament of the soul and the promise of higher glory. As Dahl has argued, the whole dilemma was summed up by contrasting

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¹⁵ Granite, rather than marble, columns were more plentiful: Albert V. Van Stekelenburg, “Some statistics regarding the spolia columns in the Christian basilicas of Rome,” Mededelingen van het Nederlands Instituut te Rome 51/52 (1992/93): 114-21. As Manuel Chrysolaras writes in 1411: “Even Rome has suffered the fate... and even our own city [Constantinople] of becoming a mine and stone quarry for itself and, as it is said of this whole universe, of extracting nourishment from itself by feeding upon its own resources”: Guido Cortassa, ed., Roma parte del cielo. Confronto tra l’Antica e la Nuova Roma (Turin: Utet, 2000).


interpretations of the Psalmonic verse, “Lord I have loved the beauty of Thy House” (“Domine, dilexi decorem domus tuae,” Ps. 25:8). This division of interpretation became so important in the medieval period that, Dahl concludes, it amounted to “a fundamental cleavage in the attitude towards church-building in the twelfth and thirteenth centuries in Western Europe.”

Marble Simulation and Faux-bookmatching

One solution to the dilemma was simulation. Simulating marble in paint sustained its image in absentia but, as we shall see, simulation of white marble masonry in particular allowed patrons a loophole in the debate over worldly vis-à-vis heavenly magnificence, straddling both sensible beauty and moral intangibility.

Despite the dearth of freshly quarried marbles, and the decreasing supply of spoliated ones desire for the material remained strong across Europe, and patrons and artists wishing to exploit it were driven back on either spoliation or simulation. Simulation was de rigueur in territories as outlying as Northumbria, Georgia or Cappadocia, with no history of imperial patronage and where it remained impossible to obtain anything but fragments of real marbles. Simulation had always been achieved by patterning walls with colorful squiggles and spatter because marble veining was just as important as its color, but it was to become an equally international style of ornament when geometrically abstracted.

Chapter 6: Vanity and the Ideal Church

The strident zigzags, chevrons, spirals, and reticulate patterns that decorate the nave columns in a series of late-eleventh and early-twelfth century churches in England (Durham Cathedral, 1093-1133, being the most famous) and many others from Scandinavia to Georgia, are not decorative abstractions for their own sake, but derive from late antique pictorial conventions for representing marble veining (figs. 6.1-6). One finds such “lightning-bolt” veining conventions on the fourth-century mosaics at the Piazza Armerina (fig. 6.7), throughout North Africa and elsewhere in the empire. A more restrained version is found adorning the walls in subsidiary areas of much earlier houses, as well as baths, in and around Pompeii. On further inspection, this notation for

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19 Eric Fernie traces the dissemination of this patterning to Lindisfarne (1120s), Selby (c. 1097-1123), Dumferline (1128-1150), Norwich (1096-1119), Waltham Abbey (c. 1130s-50s), Kirkby Lonsdale (undated), and the crypt of York Minster (1150s), without considering the significance of the patterning itself; Eric C. Fernie, “The Architectural Influence of Durham Cathedral,” in Anglo-Norman Durham: 1093-1193, ed. Davis W. Rollason, Margaret Harvey, and Michael Prestwich (Woodbridge, Suffolk, UK/Rochester, NY: Boydell Press, 1994). To Fernie’s examples may be added St. Lawrence at Pittington (12th century).


stone veining turns out to be one of the great *longue durées* in the history of ornament. It stretches all the way back to Bronze-Age Greece and the patterns painted on the plaster floors with incised grids of Mycenaean *megara* or the dados of Minoan throne-rooms (figs. 6.8-9). The same patterns are of such longevity that they reappear in the *Hypnerotomachia Poliphili*, again probably by way of Byzantine manuscript illustration, most notably in the images of the garden containing the tomb of Adonis, where the precinct enclosure mimics a *transenna* of marble (fig. 6.10). In Byzantine church decoration, it also survived until at least the late eighteenth century. Chevron patterning, which appeared in English architecture at Durham first of all, was again disseminated through illuminated Canon Tables.


This convention proved extremely durable, for rainbow chevrons even decorate the columns of Cappadocian rock-cut churches, such as the eleventh-century Karanlik Kilise (“Dark Church”) near Göreme, another area where true marble was unavailable.\(^\text{24}\) Manuscripts as much as masons were probably the primary channels for the convention’s diffusion, especially the faux-marble architecture that framed Canon Tables in late-antique Gospel books (fig. 6.11).\(^\text{25}\) Such illuminations even became the models for Qur’an frontispieces (fig. 6.12), but the Canon Tables themselves also, ironically, fell victim to spoliation when they were reused as fly-leaves or integrated into later codices.\(^\text{26}\) After the fall of Constantinople in 1204 there was vastly increased opportunity for such influences. The looting of the city brought not only the booty of relics and actual


Borg has instead argued that chevron patterning, which first appeared at Durham c. 1110, was derived from saw-tooth brickwork; Alan Borg, “The Development of Chevron Ornament,” *The Journal of the British Archaeological Association* 30 (1967): 122-40. This hypothesis functions for arch borders and soffits but not for columns.


Spiral patterns like those at Durham are generally associated with the spiral barley-leaf columns of Old St. Peter’s; Eric C. Fernie, “The Spiral Piers of Durham Cathedral,” in *Medieval Art and Architecture at Durham Cathedral* (London: British Archaeological Association, 1980), 49-58. But no compatible explanation is available for the other patterns. On Medieval ambos, altar frontals, candelabra and cloisters, such spiral shafts are frequently inlaid with glass and marble tesserae; Peter Cornelius Claussen, *Magistri doctissimi Romani: die römischen Marmorkünstler des Mittelalters* (Stuttgart: Franz Steiner, 1987): figs. 58, 63, 70, 140, 50, etc.

marbles, but also resulted in a diaspora of manuscripts to Italy and France, including several with miniatures that showed, or purported to show, marble-clad Byzantine churches (figs. 7.3). Such sources would explain both chevron and spiral patterning, but the reticulate patterns may hearken back to “jeweled” columns that had ennobled so many Constantinopolitan churches (figs. 3.7-9).

There were still more direct forms of transmission. The earliest columns to bear such motifs in England are from Lanfranc’s first cathedral at Canterbury (c. 1071-78; figs. 6.2-5), and both he and his architect Gundulf were of Italian origin. Likewise the bishop who commissioned Durham cathedral, William of St. Calais, the bishop who commissioned the cathedral, had just returned from exile (1088-91) at Rouen and there is every likelihood that the architect of Durham was in his retinue.

The choice of marble, a material scarcely available in the British Isles but one whose image persisted in the bewildering descriptions of classical texts, still re-evoked a material which was intrinsically sacral because it recalled the

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28 For bibliography, see Chapter 7.

29 See Chapter 3. Indeed, as early as the eighth century, when the Al-Aqsa Mosque on the Haram al-Sharif (Temple Mount) in Jerusalem was renovated the columns of the prayer hall were plastered and painted both with marbling and diaper patterns: Robert W. Hamilton, The Structural History of the Aqsa Mosque: A Record of Archaeological Gleanings from the Repairs of 1938-1942 (London: Oxford University Press, 1949).

30 They were Lombards: Deborah Kahn, Canterbury Cathedral and its Romanesque Sculpture (London: Harvey Miller, 1991): 31 and figs. 21-24. For travelling master masons and the connections between England and Italy in the 11th and 12th centuries: Jill Meredith, “The Impact of Italy on the Romanesque Sculpture of England” (PhD, Yale, 1980), chapter 1 with bibliography.

31 “Arriving in Rouen in 1088 must have been an unusually stimulating experience: the fall of Toledo and Sicily led to new manuscripts and new artistic experiences. Bony has identified an extremely sophisticated preplanning of the building elements at Durham and hypotheses that the architect had experiences of the very latest advances in the mathematical sciences dissipated through the seizing of the Arabic library at Toledo”: Bony, “Stonework,” 33-34.
Heavenly Jerusalem fashioned from glittering gems (see Chapter 3). At Durham, these patterns vary from column to column, as they do in the other, contemporary and comparable English churches (fig. 6.1-5). Such *varietas* perhaps held special associations with Solomon’s Temple and almost certainly with the Holy Sepulcher.32

But the particular variation of the columns in these English churches may also, as Fernie extensively argues, have served to celebrate liturgical landmarks.33 In Rome, columns of prized marbles had long emphasized the site of the nave altar, or the division between the lay and clerical parts of the nave.34 At Durham, the spirally grooved columns flanked the Jesus Altar whose reredos:

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frome piller to piller was sett vp a border very artificially wrowght in stone wth m^velous fynly coulers, verie curiouslie & excellent fynly gilt wth branches & flowres ye more that a mā did looke on it ye more desires he had, and the greater was his affectiõ to behold yt
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Whatever the case, the longer that zigzags and the like remained in use as a notation for polychrome marble, the longer they continued to figure the


35 George Bates, “Rites of Durham, being a description or brief declaration of all the ancient monuments, rites, & customs belonging of being within the monastical church of Durham before the suppression, Written 1593, first published London 1672,” (Durham: Surtees Society, 1903), 33. The author is truly unknown but thought to be George Bates, the last Register [sic] of the monastery (xiv).
medium’s miraculous image-making veining. Graphic evidence of this comes from the canon tables of the Lorsch Gospels (c. 810), in whose columns of abstracted veining human faces are clearly perceptible (fig. 6.13). It is equally possible that the rigorous geometries of Durham’s columns were the inevitable product of simulating the symmetry that had become so distinctive of “book-matched” marble revetment from the sixth century on. These revetments are illustrated in manuscript illuminations, and stylized renderings decorate the back of some icons (fig. 6.14).

This was visibly the case at the monastic church of Saint-Savin-sur-Gartempe (1060-1115) in the Poitou (fig. 6.15), the contemporary Saint-Hilaire-le-Grand (fig. 6.16) and Notre-Dame-la-Grande in Poitiers itself, and several others where the nave columns are unmistakably painted in direct imitation of “book-matched” marbling. These churches must be considered the “missing links” between the sort of patterning one finds at Durham and its Mediterranean forebears.


38 For Saint-Savin, although not its conspicuous faux-marbling: Robert Favreau et al., Saint-Savin. L’Abbaye et ses peintures murales (Saint-Aignan-de-Grand-Lieu: 1999). For Saint-Savin and Saint-Hilaire-le-Grand: Marie-Thérèse Camus, “Capitelli e colonne dipinte. Antecedenti dell’XI secolo nella Francia dell’Ovest,” in Wiligelmo e Lanfranco nell’Europa romanica (Modena: Panini, 1989), 141-49. Camus mentions identical remains at Ronceray d’Angers, Vieux-Pouzauges in the Vendée, and unspecified sites in Berry, Burgundy and the Loire Valley. The choir in the church at Anzy-le-Duc (Saône-et-Loire) also has faux, book-matched marbling on its piers that may be original; Raymond Oursel, France romane, 2nd ed., 2 vols. (La Pierre-qui-Vire: Zodiac, 1989): pl. 61. The similarly painted columns visible in pre-war photographs of St. Godehard, Hildesheim (1133-1172), were actually painted in 1875-77, but the French examples are unquestionably authentic.
The columns at Durham may also have been painted, a practice which must have been far more widespread than the physical remains to attest it, for recipes were certainly circulated. For example, that in “Pseudo-Heraclius,” probably a twelfth–thirteenth century text that is variously said to have been written in northern France, England, or eastern Italy.39

If we pursue the genetic metaphor a step further, then an intermediary stage of evolution between Saint-Savin’s painted columns and Durham’s incised ones is the relief carved on one of the piers in the cloister at Moissac (fig. 6.17), which may equally represent a sea or marble veining.40

**Romanesque Faux-Masonry and its Significance**

Saint-Savin’s columns are painted in a warm and earthy palette of pinks and rust reds, but the walls behind them are masked by a layer of fine, white plaster, on which evenly-spaced mortar joints have been carefully ruled to give the illusion of finely drafted masonry (fig. 6.18).

39 Pseudo-Heraclius, *De coloribus et de artibus Romanorum*, Lib. III, 25 in Chiara Garzya Romano, *I colori e le arti dei Romani e la compilazione pseudo-eracliana* (Bologna: Il Mulino, 1996), 6: 22, 51, and notes at 103-05: “Quomodo praeperatur columna ad pingendum… Si vero marbrire vouleris, super unum colorem, vel brunem, vel nigrum, vel alium colorem, cum siccata fuerit marbrire poteris. Postea vernicia ad soleni” (“How to prepare a column for painting… If, however, you wish to feign marble, you can do so on a background of color, either brown or black or some other color, when the [sealing preparation and undercoat of the] column has dried. Then paint it in the sun”). For the date and provenance of this text, see xxi-xxv.

In the crypt of Canterbury the intermediate columns that do not have channelled spirals are painted with them. Moreover, the channelled columns in St. Gabriel’s Chapel bear visible paint traces: Kahn, *Canterbury*: pl. I.

40 The most recent monograph regards the relief as meaningless abstraction; Thorsten Droste et al., *Die Skulpturen von Moissac: Gestalt und Funktion romanischer Bauplastik* (Munich: Hirmer, 1996): 60. It is ignored altogether in Meyer Schapiro, *The Romanesque Sculpture of Moissac* (New York: George Braziller, 1985). It may be relevant that the pier diametrically opposite that with this “sea-veined” relief is of a red limestone, from a distant Pyrenean quarry; Annie Blanc, “Marbles and Decorative Stones Used in French Medieval Monuments,” in *The Study of Marble and Other Stones used in Antiquity*, ed. Yannis Maniatis et al. (London: Archetype Books, 1995), 62 and fig. 9. All the others are white, and one may speculate that a representational antithesis of elements (i.e. fire and water) was intended.
Such decorations once coated scores of Romanesque and Gothic churches, not just in the Poitou but throughout Europe and, as at Saint-Savin, the faux-coursing frequently covers a real structure that includes real, finely-drafted masonry. In fact, it is disconcerting to find in some instances (like St. Alban’s in Hertfordshire) that the faux-masonry is visually much inferior to the real thing, which is finely finished and well drafted, whilst the painted coursing meanders drunkenly over the surface in a non-tectonic manner. The phenomenon of superimposed faux-masonry has baffled scholars. But, whatever the practice’s technical shortcomings, it only seems explicable if the artisans’ goal was to substitute all-too-earthly stones with the immaterial image of a more heavenly masonry. Although Paul had called the false priest a “whited wall” (Acts 23:3), in the Romanesque churches representation now triumphed over matter.

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42 There are Hellenistic precedents: e.g. the white stucco with finely draughted joints over a real stone core on house walls in Delos: Andreas Andreou, “Griechische Wanddekorationen” (PhD, Johannes Gutenberg-Universität, 1988), cat. nos. 30-64.
More precisely, the origins of the phenomenon arguably lie in the Greek mistranslation of several Old Testament passages, subsequently perpetuated in Jerome’s Vulgate, where the generic Hebrew term for marble (Shayish) is rendered as “Parian.” These passages particularly deal with the marble walls of The Temple. Of course, no French or English monk had ever laid eyes on a block of Parian marble, nor would they have known it if they had. But they did know that The Temple had been a brilliant white because Josephus said so, even though he was actually describing Herod’s temple and not Solomon’s. Moreover, many monastery libraries conserved copies of Pliny, or at least Isidore’s Etymologies, and these characterized Parian marble’s most salient feature as a glimmering, dazzling whiteness. The monks were happy to apply the name in precisely this qualitative sense, and consequently began to term any high-grade, white stone “Parian.”

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43 The key passages are Chronicles and Kings. Thus in the Authorised Version, at 1 Chronicles, 29:2, David says “Now I have prepared with all my might for the house of my God […] onyx stones, and stones to be set, glistening stones, and of divers colours, and all manner of precious stones, and marble stones in abundance,” which Jerome had translated “ego autem totis viribus meis praeparavi inpensas domus Dei mei […] lapides onychinos et quasi stibinos et diversorum colorum omnem pretiosum lapidem et marmor parium abundantissime.” For the Hebrew terminology, see Tziona Grossmark, “'Shayish' (Marble) in Rabbinic Literature,” in Marble Studies. Roman Palestine and the Marble Trade, ed. Moshe L. Fischer (Constanzt: UVK Universitätsverlag Konstanz, 1998), 274-83.


45 Isid. Etym. 16.5.8: “Parius candoris eximii, Lychnites cognomento: hic apud Paron insulam nascitur, unde et Parius nuncupatus.” Thus, Prudentius called the columns of S. Paolo fuori le
A church that was built, or appeared to be built, from “Parian” marble was desirable because it signified the eternal church. Prudentius had foreseen a new Rome devoid of paganism when “at last the marbles will shine because they are cleansed of all blood.” More importantly, the medieval commentators who were his successors had spared no opportunity to compare gleaming Parian to the spotless purity of the Elect, thereby emphasizing how Solomon’s Temple reflected the community of heaven in material terms. The Venerable Bede, in De templo (c. 729-31), was the first to assert, “it is obvious to everyone that the white marble of which the house of the Lord was built denotes the pure manner of acting of the elect as well as their conscience purified of all blemish of corruption” (Appendix 6). Bede also mentions that Parian “is born” (gignere), and its character as a stone that generated itself on mountain slopes, almost like snow, can only have added to its immaculate appeal (see Chapter 1). Bede’s formula was disseminated by a number of other influential theologians, who

46 “tunc pura ab omni sanguine / tandem nitebant marmora;” Perist. 2.481-482. Prudentius also urged his fellow citizens to “wash the marbles that are bespattered and stained with putrid blood you nobles. The statues must rest clean… let no debased usage pollute the monuments of art and turn it into sin” (“Marmora tabenti respergine tincta lauate, / o proceres. Liceat statuas consistere puras… / nec decolor usus / in uitium ursae monumenta coinquinet artis,” c. Symm. 1.501-505). Likewise, Adelm of Malmesbury (beginning of the 8th century) will argue that Rome’s brilliant pagan temples and execrable deities are destroyed and her new temples “shine with the blood of Christ” (De virginitate, 560-566).
often repeated it verbatim. And Hrabanus Maurus, writing about 844, only paraphrases him when he writes: “Parian marble is of a brilliant hue, and signifies the spotlessness of the elect. For which reason one reads that the temple walls in the Temple of Solomon were built from this very stone: which signifies that the holy church is constructed out of the spotless life of the saints and most excellent abode.” Next Raoul Glaber’s Historiae (written 1046/50) used the white garments of Christ’s Transfiguration (“shining, excessively white, like snow, whiter than any fuller on earth could make them,” Mark 9:2; fig. 1.11) as a metaphor for those with which the Savior clothed Glaber’s age. In 1003, he says “it was possible to see almost everywhere in the world, but particularly in Italy and Gaul, the reconstruction of church buildings… one might have said that the world itself stirred to shake off its old garment in order to cover itself everywhere with a white cloak of churches.”

47 Angelomus Luxovensis, Enarrationes in Libros Regum 3.5, PL 115, col. 411C ff.; S. Eucherius, Commentarii in Libros Regum 3, PL 50; Hrabanus Maurus, Commentaria in Libros IV Regum 3.5 (834 AD), PL 109, col. 140A ff.; Claudius of Turin (840 AD), XXX quaestiones super libros regum, lib. 3, PL 104, esp. col. 733A ff. For an explicit allusion to the imitation of Solomon’s Temple, see the description of reconstruction works at Saint-Bertin (1138-1163), near Saint-Omer; Mortet, Recueil: 129.

48 “Parius enim marmor coloris candidi est, et significant munditiam electorum. Unde in templo Salomonis ex ipso lapide legitur parietes templi aedificatos esse: quod significant, ex munda sanctorum vita et conversatione probatissima sanctam Ecclesiam aedificatam esse” (PL 111, col. 464A).

49 “contigit in universo pene terrarum orbe, praecipue in Italia, et in Galliis, innovari ecclesiarum basilicas, licet pleraeque decenter locatae minime indignuissent… Erat enim instar ac si mundus ipse excutiendo semet, rejecta vetustate, passim candidam ecclesiarum vestem indueret” (Rodulphus Glabrus, Historiarum Sui Temporis Libri Quinque; PL 142, 651CD). Nichols stresses that in Glaber’s writing the metaphor of “white garments” represents “the natural world invested or clothed first by the symbolic discourse of the Logos – the ‘ego sum lux mundi’ of John 8:12 – and secondly by the ‘science and wisdom’ of human intellection… the white garments [of the Transfiguration] became the ‘language’ by which Christ clothes the world in the present age: that is, the Church.” The metaphor also “permitted [him] to distinguish the varying degrees of openness and directness in the language of Scripture, as opposed to the more opaque language of historia;” Stephen G. Nichols, Romanesque Signs. Early Medieval Narrative and Iconography (New Haven/London: Yale University Press, 1983): 15-17.
Quite probably the faux-masonry coatings of the Romanesque church were painted with lime-washes that would have made the white blocks originally shine all the brighter. But not all medieval fictive masonry is white. Some tends toward yellow, or is ochrous, as on the façade of S. Giovanni a Porta Latina, Rome (late eleventh or early twelfth century; fig. 6.19), or the entire interior of Chartres Cathedral (1194-1260). In these cases, the decision to apply a tawny color may represent the “onyx stones... glistening stones, and of divers colours” which David prepared for the House of God or, more probably, recall that Solomon had eventually “overlaid the whole house [i.e. Temple] with gold.”

Bede and Maurus had openly didactic aims, seeking in particular to educate the monastic communities that would one day commission or actually decorate buildings like Saint-Savin. For this reason, they wished it to be obvious that God infused every detail of the place of worship. As Bede exhorts us in a dedication homily, we should note carefully “the marvelous workmanship that went into the construction of the Lord’s earthly house... so that these details,

50 In the absence, to my knowledge, of any chemical analysis this remains a hypothesis. 11th century chronicles merely mention church walls being whitewashed (“parietes dealbare”): Mortet, Recueil: 93, 163.

51 Richard Krautheimer, Corpus basilicarum christianarum Romae (Vatican City: Pontificio istituto di archeologia cristiana, 1937-77): 1: 304-19; Guglielmo Mathiae, S. Giovanni a Porta Latina e l’oratorio di S. Giovanni in Oleo (Rome: Edizioni “Roma” Marietti, 1959): 53; Jürgen Michler, “La cathédrale Notre-Dame de Chartres: Reconstitution de la polychromie originale de l’intérieur,” Bulletin monumental 147 (1989): 117-31, esp. fig. 13. At Chartres, the intense, yellow faux-masonry was divided by white faux-mortar joints. The yellowish paint covered all surfaces, including the vault, with the exception of the ribs, engaged colonnettes and triforium colonnettes, which were painted white (= Parian?).

when spiritually understood, will arouse our minds to more ardent love of the heavenly dwelling place.”

At Saint-Savin the salient detail is the precision of the painted masonry, whose evenly spaced mortar joints simulate the ashlar-type that Vitruvius had called *opus isodomum* (*De Arch.* 2.8.6). Some monasteries certainly owned copies of Vitruvius and many learned men knew the work either *in toto* or through excerpts. Moreover, more than one abbot saw himself as a successor to Augustus and bragged that he too had found a city of brick (or wood) and left one of marble. But the depiction of finely drafted masonry at Saint-Savin and churches like it is arguably less a generic reclamation of antiquity than an extension of the much-traveled metaphor of the elect as the living stones of the eternal church, an aspiration that was voiced during the dedication.

In the hands of other theologians the metaphor could be

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56 Joseph C. Plumpe, “Vivum Saxum, Vivi Lapides. The Concept of ‘Living Stone’ in Classical and Christian Antiquity,” *Traditio* 1 (1943): 8-9. The basic references are *Ephesians* 2:20-22. “Built upon a foundation of the apostles and prophets, Jesus Christ himself being the chief corner stone: In whom all the building, being framed together, growth up into a holy temple in the Lord. In whom you also are built together into an habitation of God in the Spirit;” *I Peter* 2:4-6, “So come to him, to the living stone which was rejected by men but chosen by God and of great worth to him. You also, as living stones, must be built up into a spiritual temple, and form a holy
surprisingly literal, since the Saints were living rocks, honed by adversity, well-squared by tribulation and polished by virtue. The wall of the “living church” is therefore formed of perfectly squared and close-fitting blocks.\textsuperscript{57}

In the terrestrial equivalent, the physically constructed church, the image of construction or, more precisely, the picture of assembly could allegorize the sanctuary interior into a likeness of the universal church of living stones, whose unity was epitomized by their fine fit. The visual strategy was little removed from that of Augustan Rome, but now the solidity of masonry did not speak of the integrity of the imperial state but the totality of a super-populated heaven teeming with the white-clad elect, as in Pascal I’s mosaic in the apse of S. Maria in Domnica (fig. 6.20). In other words, the proof of solidity was a jointing so fine that the masonry would appear to be \textit{ex uno lapide}. The Patriarch Photius (864) describes the façade of the Constantinopolitan Pharos Church in these very

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priesthood to offer spiritual sacrifices acceptable to God through Jesus Christ. For you will find in scripture: I am laying in Zion a chosen corner-stone of great worth. Whoever has faith in it will not be put to shame.\textsuperscript{9} In the dedication prayer at the end of the \textit{Exhortatio ad Virgines Ambrose} (340-397) beseeches the Lord to keep his eye upon the church, its altar and “these spiritual stones, in everyone of which a sensible temple is consecrated unto thee,” but this had also been the theme of Eusebius’ panegyric of the church at Tyre (c. 317 AD): \textit{Hist. Eccl.} 10.4.60-65. For the classical tradition from which these ideas derive: Arnold Ehrhard, “Vir Bonus Quadrato Lapidi Comparatur,” \textit{Harvard Theological Review} 38, no. 3 (1945): 177-93.
\end{quote}

\textsuperscript{57} Thus the 12\textsuperscript{th}/13\textsuperscript{th} century theologian Pierre de Roissy says “Lapides quadrati significant quadraturam virtutum in sanctis quae sunt: temperantia, iustitia, fortitudo, prudentia. Lapides politi significant sanctos per pacienciam adversorum […] colligantur autem lapides cemento, quia sancti colligantur caritate. Unde Apostolus ad Ephesios: ‘Solliciti servare unitatem spiritus in vinculo pacis’” (“Squared stones denote the square of virtues possessed by saints, that is, moderation, justice, courage and prudence. Polished stone signify the saints who were honed by patience in the face of adversity […] and the stones are joined by mortar, because the saints are linked by charity. For which reason St. Paul says to the Ephesians ‘solicitous to keep the unity of the Spirit in the bonds of peace’ [Ephesians 4:2-3];” \textit{Manuale de Mysteriis ecclesiae} in Victor Mortet and Paul Deschamps, \textit{Recueil de textes relatifs à l’histoire de l’architecture et à la condition des architectes en France au moyen âge, XII-XIII siècles}, 2 vols. (Paris: Auguste Picard, 1929), 2: 185). Cf. “et sarta tecta temple mundissimi sui corporis restaurvit in melius, et omnes lapides sanctuarii immaculati pectoris polivit et quadratos reddidit et perpendicula arctioris conversionis in parietem perfeccionis copulavit” (“keeping the fabric of the pure temple, his body, in good repair, he renewed and perfected it, and polished all the stones of the spotless sanctuary, his breast, and made them all square, and with the plummet of exact living built them into a house of perfection;” Walteri Danielis, \textit{Vita Ailredi abbatis Rievall} (c. 1170), in Frederick M. Powicke, \textit{The Life of Ailred of Rievaulx} (London, New York: Nelson, 1950): 47-48).
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terms: for its “slabs of white marble, gleaming bright and cheerful, occupy the whole façade, and by their evenness and smoothness and close fitting they conceal the setting of one to another and the juncture of their edges, so that they suggest to the beholder’s imagination the continuousness of a single stone with, as it were, straight lines ruled on it.”

58 Closer to home and nearer in time, William of Malmesbury makes comparable comment on the fabric of the new Salisbury Cathedral (1107-1139). And even more sophisticated is the description of Lincoln Cathedral written by Henry of Avranches in the 1220s:

Although the wall is put together from the mass of separate stones, it seems to disdain this fact and gives the semblance of joining in a seamless whole the contiguous parts. It seems to exist not by art but by nature; not a thing that has been unified but a single entity.

59 “ita iuste composita ordine lapidum ut iunctura perstringat intuitum, et totam maceriam unum mentiatur esse saxum” (De gestis regum Anglorum, quoted in Mortet, Recueil: 338; PL 179, col. 1364A).


58 Phot. Hom. 10.4-5: Basileus Laourdas, ed., Photiou Homiliai: Ekdosis keimenou, eisagoge kai scholia, vol. 12 (Thessalonike: 1959), 99-104, trans. Cyril Mango, The Homilies of Photius, Patriarch of Constantinople. English Translation, Introduction and Commentary by Cyril Mango (Cambridge MA: Harvard University Press 1958): 184-90. Cf. Federico Barbarossa marveled at the marble gate of Milan “so well made by the artisans’ hands that… just like the works of the Roman empire, there appeared almost no joint in any part of it” (“sic autem manibus artificium formata, ut… ad similitudinem Romani operas vix aut nusquam in ea iunctura compaginis appareret;” Rabewini gesta Friderici I, Lib. III, fol. 37, in Lehmann-Brockhaus, ed., Lateinische Schriftquellen: 1: 466, no. 2240). Additional sources in Michael Greenhalgh, The Survival of Roman Antiquities in the Middle Ages (Duckworth, 1989), London: 124-26. Cf. Evliya Celebi’s praise of the Parthenon (c. 1667), that to describe it “the tongue falls short and the pen is broken. The white polished marbles on the walls are of elephant size. What is noteworthy is that one, though he may not be knowledgeable and skilled in architecture, still cannot see the joints between these stones. You think that it is a great wall of one piece, forty cubits high, and it is so shiny and radiant that any minute thing flying in the air can be seen on it and especially the color of the face of the persons who gather there, the genuflections and the bowing to the ground during public prayers are reflected there. We are justified in saying that there are four big walls like mirrors, of one piece. And it is praiseworthy that there is no mortar, no gypsum, no concrete in these walls,” Cevdet Ahmet, ed., Evliyâ Çelebi Seyâhatnâmesi, 15 vols. (Dersaadet’té [Istanbul]: Ikdam Matbaasi, 1897-1938), 8: 255; trans. Anastasia Demetriades Norre, Studies in the History of the Parthenon (Ann Arbor: UMI, 1966): 235-36.
Furthermore, in the Saint-Savin masonry the fictive blocks are shown divided by double, concentric lines rather than single ones. These might be taken to represent thick mortar joints, but according to the “living stones” line of interpretation it is more likely that the convention represents *anathyrosis* (see Chapter 1). In this respect, the perfectly drafted and channeled masonry of the Romanesque church, however fictive, not only looks back to the masonry of the classical temple reflecting the solidarity of the well-governed state, but also forward to the classicizing reinvention of *opus isodomum* on the Palazzo della Cancelleria, in Rome, in the 1490s (fig. 6.21). The travertine skin of this palace, as is well known, is in reality composed of irregular pieces of stone, but the conceit of *anathyrosis* persuades the viewer of an overall regularity through the pronounced evidence of the joint. As at Saint-Savin and the Pharos Chapel, unity is ultimately stressed by division, and the image of construction shares parity with that of the material.

This idea of representing and amplifying the joint to evoke all the virtues of monumental masonry was understood from one end of the Europe to the other, for it arguably underlies the “*cloisonné* masonry” of Middle- and Late-Byzantine churches in central and southern Greece (tenth to fifteenth centuries). The masonry envelopes of these churches evoke monumental masonry by outlining squared plaques of limestone with red brick courses and dividers. All the surviving diminutive churches of Athens, a city where the model of antique,

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monumental precision-masonry was particularly overbearing, are characterized by this technique (fig. 6.22). The exception that proves the rule is the Panaghia Gorgoepikoos, which is built entirely of monumental, classical, marble spolia. Several examples are enriched by brickwork or pantiles forming the monogram of the patron, or imitating pseudo-kufic script, but such interstitial ornament still privileges the image of monumental masonry, and assumes a dialectical relationship with it just as opus sectile had in Hagia Sophia (see Chapter 4).62

By the same token, the insubstantiality of the faux-masonry in the Romanesque interior was ultimately in keeping with the precepts of parallelism on which it depended. It should be a pale reflection because the church interior was not heaven itself, but merely a likeness, one of many “heavens on earth.” As one particularly poetic, twelfth-century chronicler puts it:

I have actually considered it superfluous to say anything about material buildings, since every day they are renewed, the old ones destroyed and the new ones built, and, God willing, continually changed for the better. On the other hand, one must know about spiritual buildings because this house is founded on a firm bedrock, which is Our Lord Jesus Christ, which is raised on seven columns and rises through the clouds, exceeds the stars, and stretches right to the throne of the Supreme Judge, where the King of Kings wields the scepter, manages the reins of the world, and steadily regulates its speeding course. In it, great stones, living stones, precious stones are hewn, squared and polished, from which the heavenly Jerusalem is built so as to ensure the participation of the citizens in its own self63

This passage is heir to a series of early Christian texts, which posit an immaterial heaven in order to anathematize the material splendors coveted by this world. In the eyes of some observers and the hands of some artists, heaven could reside in the material world by metaphor or allegory. For others, the ultimately insensible heaven could not be figured in any material at all. Thus Prudentius, the poet who penned so many evocative descriptions of gemmed edifices can also compose the following thoughts, in which rhetorical topoi are inverted to constitute virtually an anti-ekphrasis. In this text (c. 402/403)

Prudentius argues for a temple not of marble, but of the heart:

Come then, oh mortal, build a temple to me alone
And worship me as the sole God. I seek no quarried stones,
Neither the rock that Paros nor the Punic cliff cuts,
Nor those that green Lacedaemon or veined Synna possess;
Let no man consecrate natural red stone to me.
I love a temple of the mind, not one of marble.
In it the golden foundations of faith stand true,
The edifice soars shining with holiness snow-white,
Righteousness coats its lofty roof, and within
Life-giving purity dyes the floor with blushing flowers
Of modesty scattered about, and keeps the courts.
This is the house that befits me, the beauteous abode
Worthy of its eternal and heavenly guest

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63 On the Cistercian Abbey of Silvanès, in the Rouergue: “De materialibus etiam edificiis dicere superfluum judicavi, cum cotidie renovantur, veteran desruuntur, et nova edificantur, et Deo propitio, in melius assidue commutantur. De spiritualibus autem scindendum est quia domus hec fundata est supra firmam petram, id est Dominum Jesum Christum, que columnis septem in altum erecta nubes transit, sidera transcendet, et usque ad solium Superni Judicis pertingit, ubi regum Rex et rerum Dominus sceoptra tenet, orbisque habenas temperat, et volucrem cursum stabilis regit. In ea lapides magni, lapides vivi, lapides pretiosi dolantur, quadrantur et poliuntur, de quibus Hierusalem celestis edificatur ut civitas cuius participation ejus in idipsum,” Hugo Francigena, Tractatus de conversione Poncii de Larazio et exordio Salvaniensis monasterii, in Mortet and Deschamps, Recueil: 48. The same document stresses that when this monastery was founded (1136) it was endowed not only by local nobility but also foreign, including the Byzantine Emperor John Komnenos, King Roger II of Sicily and Theobald II, Count of Champagne.

64 We might compare this with Paulinus of Nola’s anti-epithalamium, in which Christ is subsituted for the bride, and pagan ornaments deemed superfluous for a Christian woman: Zoja Pavlovskis, “Statius and the Late Latin Epithalamia,” Classical Philology 60, no. 3 (1965): 165-66.
The purity of the heavenly masonry is wonderfully allegorized in a still more visionary passage from a still earlier Christian tract, *The Shepherd of Hermas*. This text dates back to the second century, when it could just as well have been penned about some pagan temple, but was translated into Latin early in the medieval period and enjoyed wide diffusion. In the parable, virgins build a heavenly tower (the ideal church), gathering from all the mountains stones of varied colors, hewn by men. The maidens carried them through the portal and delivered them for the building of the tower. And whenever these stones of varied colors were set in the building, they all became identically white, shedding their former colors. But some stones brought by the men for building did not become radiant but remained such as they had been before they were set: for they had not been handled by the maidens or passed through the portal. Such stones had to be removed and set aside that the maidens might handle them: for if they are not brought through the portal by the maidens’ hands, they cannot change color.66

Not only does all color bleed away as the blocks combine to make the ideal church but the author concludes, “they adhered so closely one with another that their joining could not possibly be detected and the building of the tower appeared as if it were built of one stone.”67

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65 “Quare age, mortalis, soli mihi construe templum, / meque unum venerare Deum. Caementa remitto, / et quae saxa Paros secat et quae Punica rupis, / quae viridis Lacedaemon habet maculosaque Synna; / nativum nemo scopuli mihi dedice ostrum. / templum mentis amo, non marmoris: aurea / in illo fundamenta manent fidei, structura nivali / consurgit pietate nitens, tegit ardua culmen / iustitia, interius spargit sola picta rubenti / flore pudicitiae pudor almus et atria servat. / haec domus apta mihi est, haec me pulcherrima sedes / accipit, aeterno caelestique hospite digna” (c. Symm. 2.244-255). Cf. [Plato], *Eryxias*, 394e: “Or is it that men look down upon this [wisdom] and there are no buyers, while many, needing and desiring cypress wood and Pentelic marble for the house, buy these?”


Real stones but fake porphyries: Purbeck marble

Eventually, the next prior of Durham, Roger (1137-1149), “because he had heard that foreign churches in overseas countries were resplendent in the beauty of such work, decided for the glory of St. Cuthbert, to adorn and beautify his church” and even went to the lengths of convening continent-bound pilgrims to procure him marble slabs.\(^6\) One of them, Harpin, knight of Thornley, endearingly dragged a chunk back all the way from Rome in the lap of his saddle.\(^6\)

\(^6\) “Roger, prior of Durham… burnished the glory of the blessed Cuthbert with great care; for which reason he also ordered that the pavement of the church itself be paved with marble. Moreover, because he had heard that foreign churches, overseas in mainland Europe, were resplendent in the beauty of such work, he decided for the glory of St. Cuthbert, to adorn and thoroughly beautify his church. For this reason he brought together and consulted individual members of the faithful bound for pilgrimage in foreign parts, and by his instruction he solicited them to bring in marble pieces of stone for this work.” (“Rogerius, prior Dunelmensis… circa b[ea]ti Cuthberti gloriam multa devotione excreverat; unde et pavimentum ipsius ecclesiae strato marmore componere disponebat. Quia enim ulterioris patriae regionis transmarinae peregrinas ecclesias talis audierat venustate operis effulgere, decrevit, ob b[ea]ti Cuthberti gloriam, ipsius ecclesiam tali compositionis scemate reficiendo perornare. Unde singulos devotorum, peregrinas regionum fines religiosa institutione adeuntium, conveniendo consuluit, atque marmorea lapidum frusta sibi in hoc opus comportare monendo rogavit.” Reginaldi monachi Dunelmensis libellus de admirandis b. Cuthberti vitutibus, fols. 154-157, published in Lehmann-Brockhaus, ed., Lateinische Schriftquellen: 1: 372, no. 1399).

\(^6\) “Therefore it happened that Harpin, a warrior from Thornley, wished to see the beautiful threshold of the blessed Peter… he went to Rome, and completing the arranged trip with all good fortune, he obtained a marble slab, of mid-range size but distinguished for the high quality of its material, and so he received it to send to St. Cuthbert and he began to take it away[…] From Rome, he always carried the weight of the stone with him while riding, and he brought it in his lap holding it in place with his elbow[…] Harpin, in the end, returned to Durham, and in a wondrous gift of piety donated his slab to the blessed Cuthbert. Until the present day the friars of the church have worn down the colors of the aforesaid slab with rubbing it; it is because it preserves the very esteemed glory of St. Cuthbert’s honour that they show it to many people” (“Contigit igitur Harpin, militem de Thorlaue, b. Petri [Romae] velle limina orationis gratia invisere […] Romam itaque usque, dispositi itineris opus cum omni prosperitate conficiens, lapidem marmoreum, mediae quantitatis sed precioso qualitate generis conspicuum, assumptim, eumque b. Cuthberto sicut mandatis acceperat, deferendum instituit. […] Unde semper ipsumet praedicti onus lapidis in equitando detulit, et in sinus sui gremio ulnis sustinentibus conportavit. […] Harpinus post omnia Dunelmum rediit, et lapidem suum b. Cuthberto cum mira devotionis oblatione consignavit. Unde usque [hodie?] fratres ecclesiae colores suos in praedicto lapide conterendo diminuunt; et ob b. Cuthberti honoris gloriam cariorem habendo quam multis ostendunt;” Lehmann-Brockhaus, ed., Lateinische Schriftquellen: 1: 372, no. 1399). Given this description Harpin’s slab is not likely to have been porphyry, as is often said.
This is not the first time that porphyry had made its way to England. In 1071, for example, Abbot Baldwin of Bury St. Edmunds received a porphyry altar from Pope Alexander III while in Rome.\(^7\) One slab was, of course, insufficient to make the point so the next prior (1153-95), Hugh of Le Puiset, who had been consecrated in Rome (1153), “decorated the whole building with marble from afar” and adorned the resting place of the Venerable Bede with precious stones, importing the “columns and bases of marble from beyond the sea.”\(^7\) The columns in question still exist in the Galilee, and are made from Purbeck “marble,” quarried on the isle of that name near Corfe in Dorset at the other end of the country.\(^7\) It was “beyond the sea” only in the sense that the stone had to be shipped to Newcastle. Purbeck “marble,” which is in reality a limestone capable of taking a high polish,\(^7\) comes in shades ranging from blue-grey to

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\(^7\) “However in the church of his personal seat… [Hugh] gave many ornaments… having received from far away places the marble with which the whole church was to be decorated… he built and adorned it with amazing work in precious stones, in which he placed the bones of the presbyter, the Venerable Bede, and of the monk Girwen, along with the relics of many other saints” (“In ecclesia sane sedis suae… multa ornamenta dedit… addito de longinquo marmore quo totum decoraretur aedificium… lapidibus pretiosis opere mirifico adornatum construxit, in quo viri venerabilis Bedae presbyteri et Girwensis monach ossa, cum multorum aliorum sanctorum reliquias collocavit”): Historiae Dunelmensis ecclesiae continuatio altera, usque ad episcopatum Hugonis de Puteco, fol. 168; Lehmann-Brockhaus, ed., *Lateinische Schriftquellen*: 1: 378-79, no. 1408. Cf. “A transmarinis partibus deferebantur columnae et bases marmoreae;” *Liber Gaufridi sacristae de Coldingham de statu ecclesiae Dunhelmensis*, fol. 11, in Lehmann-Brockhaus, ed., *Lateinische Schriftquellen*: 1: 380, no. 1412.

\(^7\) Richard Halsey, “The Galilee Chapel,” in *Medieval Art and Architecture at Durham Cathedral* (London: British Archaeological Association, 1980), 59-73. Halsey proposes that the materials were originally ordered for an abortive scheme to beautify the shrine of St. Cuthbert at the other end of the church (61).

reddish brown and green, but a deep purpuley tint was so popular that Purbeck’s diffusion across cathedral interiors throughout England may well have been prompted by the desire to come up with an indigenous alternative to the punitively costly porphyry.

On inspection, this was probably a widespread motivation. At the other end of Europe, in the Rus, where marbles had been sporadically imported from Byzantium for use in floors, after the eleventh century local materials, or ceramics, were enlisted to imitate them.74 In fact, masons sought out various types of red slates and sandstones quite probably to substitute for porphyry.75 In Hungary too, from at least the twelfth century, red limestone was quarried to substitute porphyry, probably at the behest of King Béla III (1172-1196), who had been raised in the Byzantine court.76

74 Pavel A. Rappoport, Building the Churches of Kievan Russia (Aldershot: Variorum, 1995): 145, 181, and copious Russian and Ukrainian bibliography cited there. Rappoport cites materials found in the excavations at the Desiatynna (Tithe) Church in Kiev (c. 988), which the Laurent’ev and Ipat’ev Chronicles record was built by Greek masons. Marble was used for the architectural details and liturgical furnishings of the Sviata Sofiia Cathedral, Kiev (c. 1037).

75 Especially pyrophyllite shale: Rappoport, Building: 54 and bibliography cited there. Rappoport prevaricates on the nature of the “red marble” mentioned as paving the floors of the church at Suzdal (1233) and Rostov (1280).

In England, Purbeck would, indeed, serve for the tombs of kings, knights and bishops.\textsuperscript{77} At the very least, it may have been the English “Jasper.” The earliest use of major church piers in England is in the Temple Church in London (complete by 1061), where arguably the desire to fashion the main piers out of polished “marbles” was a conscious recollection of its model, the Holy Sepulcher in Jerusalem. By the late-twelfth century purbeck was being used on columns at Canterbury that apparently copied classical proportions as well.\textsuperscript{78}

What could only have added to Purbeck’s appeal in the twelfth and thirteenth centuries was its fossiliferous nature (it contains the snail \textit{Vivipara carinifera}). In this context, it is worth mentioning a little-known contemporary (1255) fresco of \textit{Christ between Six Saints} in SS. Giovanni e Paolo, Rome: for the arcade columns shielding the protagonists the painter took some care in imitating a \textit{breccia} type marble, spangling spirally around the shaft (\textit{fig. 6.23}). Yet within this shaft faces in profile, lizards, crabs and fish appear.\textsuperscript{79} In the 1220s, it is again Henry of Avranches who attributes all the attributes of marble as painting to the purbeck columns in Lincoln Cathedral:

\textsuperscript{77} In 1307, a Purbeck “toumbe de marbre ben polye” was made for King Edward I; Thomas Wright, \textit{The Chronicle of Pierre de Langlois, in French verse, from the Earliest Period to the Death of King Edward I}, 2 vols. (London: Longmans, Green, Reader and Dyer, 1866): 2: 382 cited in Blair, “Purbeck Marble,” 50. Blair illustrates an episcopal effigy at Rochester Cathedral and mentions other examples (50-52). Strangely, the possibility that Purbeck might have doubled for Porphyry, or the ill-defined “Jasper,” does not seem to have occurred to any scholar to date. It is of passing note that the tomb of Bishop Peter Quivel (d. 1291) in Exeter Cathedral, Devon, bears the inscription PETRA TEGIT PETRUM, NIHIL OFFICIAT SIBI TETRUM.


\textsuperscript{79} The fresco decorates a wall behind the 18\textsuperscript{th} century Cappella della Assunta and was not rediscovered until 1887. It cannot be photographed in its entirety but see the watercolor in Josef Wilpert, \textit{Die römischen mosaiken und malereien der kirchlichen bauten vom IV. bis XIII. jahrhundret}, 2 vols. (Freiburg im Breisgau: Herder, 1916): 2: 631 and pls. 126-29, 131, 166, 208, 215, 243, 270 (although the fossil details are not visible in his rendering). The dating is unusually precise thanks to a now faded inscription recorded by Wilpert: ANNO DNI M. CC. LV [1255].
on close inspection this stone can hold people’s minds in suspense as they wonder whether it is jasper or marble; if it is jasper, then [it is] a dull jasper; if instead it is marble, then it is an aristocrat of marbles. There are [several] shafts of this substance… their outer surface, more polished than a fresh-growing fingernail, presents a starry brilliance to the dazzled sight, for chance [or nature] has painted there so many varied forms that, if art should toil with sustained endeavour to produce a similar painting, it could hardly copy what nature has done [or it would be as futile as ploughing sand].

The marble campaigns at Durham culminated in the reconstruction of St. Cuthbert’s shrine, about 1374. The materials used were Purbeck marble, an “Alabaster” and a “green marble.” They formed a red-yellow-green trinity, which not only united the base colors but made his tomb the jewel in a crown.

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Appendix 6

The Venerable Bede: "of what stones were the Temple of Solomon?" (c. 729-31)\textsuperscript{83}

Quali autem colore fuerint lapides, quibus factum est templum, in libro Paralipomenon aperte declaratum est, dicente David ad Salomonem, cum ei impensas templi, quas praeparavit, ostenderet: Omnen pretiosum lapidem et marmor Parium abundantissime praeparavi. Marmor autem Parium, marmor candidum dicit, quale eadem insula gignere consuevit; unde poeta dicit:

Olearon, niveamque Paron, sparsasque per aequor Cycladas, et crebris legimus freta concita ventis.

Niveam ergo Paron dicit, eo quod marmor candidissimi generis mittat: est autem una de Cycladibus, quo videlicet lapide templum fuisse factum Josephus insinuat, dicens: Elevavit itaque templum usque ad cameram, ex lapide albo constructum, altitudo fuit 60 cubitorum et centum (Lib. VIII Antiq. 3); nec mysterii sensus in abdito est. Cuivis etenim patet, quia marmor candidum, ex quo domus Domini constructa est, mundam electorum actionem simul et conscientiam ab omni naevo corruptionis castigatum designat. Quales esse voluit sapiens ille architectus eos, quos super fundamentum Christi locabat, lapides pretiosos auro argentoque redimitos: Charissimi, inquit, mundemus nos ab omni inquinamento carnis et spiritus, perficientes sanctificationem in timore Dei.

What color the stones were with which the temple was made is openly stated in the Book of Paralipomenon [= Chronicles] when David said to Solomon on showing him the materials of the temple which he had procured, „I have prepared all manner of precious stones and marble of Paros in great abundance.” White marble is called Parian marble because it was born on the island of that name. Hence the poet writes of it:

The reason why Paros is called „snowy” is that it produces a brilliant variety of marble. That the temple was made of this stone, Josephus hints when he says „Therefore, he built the temple of white stone up as far as the room; it was a hundred and twenty cubits high.” Nor is the meaning of the mystery obscure. For it is obvious to everyone that the white marble of which the house of the Lord was built denotes the pure manner of acting of the elect as well as their conscience purified of all blemish of corruption, such as that wise architect wanted those precious stones adorned with gold and silver. „Dearly beloved,” he said, „let us cleanse ourselves of every defilement of flesh and spirit, achieving our sanctification in the fear of God.”

Chapter 7

Violence and Sanctity in the Stones of San Marco

Only in Byzantium did the old marble quarries continue to function after the fourth century, but not for long. By already the ninth century, emperors had begun cannibalizing old churches to build new ones.1 And by the early-fourteenth century, a job painter in the Chora Church (Kariye Camii, c. 1316-1321) would make a witty nod to the privations that had become normal when he depicted a faux-marble panel patched with an anomalous marble (fig. 7.1).2

In the West the lack of freshly quarried marbles meant not only that spoliated stones became an ever more precious commodity but also that they assumed an increasingly mysterious character. A contributing factor was the oblivion of the original quarries, and with them the geographical record that had given most marbles their names. While porphyry, serpentine and alabaster were

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never forgotten, at least in name, almost all the rest were dubbed “marmi multicolori” or some such, and eventually “marmi mischi.” Particularly lazy commentators just called the whole lot “porfidi.” The long roster of names compiled by Pliny had become an orphan of the substance itself and begun to enjoy an independent life in literature. Moreover, the blocks themselves were often of such dimensions that incredulous observers could only conclude that they had been quarried by giants or moved by angels. In this climate of wonder the chance images that the receptive spectator discerned in the knitted veining of slabs and columns, of any size, also began to be regarded as miraculous apparitions, God-sent images not-made-by-human-hands. Even the high polish of marbles acquired mystical, sometimes prophetic properties: In 1437, for example, the Portuguese voyager Pero Tafur recorded that by looking into two columns that had been brought to Pisa among the Crusader spoils of Jerusalem, “each one can foresee the evils which are to befall him and whatever he desires.”

Most of these developing traditions are exemplified in the basilica of S. Marco, Venice, and an examination of its stones reveals the complex dialectic between spoliation, imitation, triumphalism and magic that exceeded the attractions of simple magnificence. In medieval Europe, S. Marco was also the

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3 Nompar II de Caumont, 1420: “In the choir [of Monreale Cathedral] there are other stones, beautiful and very unusual and resplendent… they are called porphyry and come in three colors, green, white and crimson” (“au cuer… d’autres pierres belles et moult estranges et roluysans… les appellent porfido et en y a de trois manieres de couleurs; l’un est vert l’autre est blanc et l’autre de viollé”): Eve Borsook, Messages in Mosaic: the Royal Programmes of Norman Sicily (1130-1187) (Oxford: Clarendon Press, 1990): 82.

outstanding example of the marbled building, one entirely constructed from spolia on a scale unprecedented except perhaps in Constantinople itself.

**Imitatio Sanctae Cappellae**

Venice had begun its rapid rise from Adriatic backwater to jewel of the Mediterranean after stealing away the remains of St. Mark from Alexandria in 823 AD. The new palatine chapel (827/29-832) that was built to house the apostle, was restored in 976-978 and completely reconstructed in c. 1063-1094, virtually in its present form. It may have begun as an imitation of the Holy Sepulcher in Jerusalem but it ended as the image of the Apostoleion in Constantinople, where Constantine’s dynasty had been laid to rest alongside the bodies of the apostles.⁵

From its inception S. Marco was an exercise in authentication by imitation, first in form and then in adornments. The interior (figs. 7.2-4 & 5.6-7) had received its first marbles in the eleventh century and although tradition claimed, predictably, that they had arrived from every quarter, many must have been pilfered from the now abandoned cities that Venice had supplanted in the lagoon: Altino, Aquileia, Eraclea, Oderzo, and Concordia.⁶ Despite this abundant supply, to coat the exterior of S. Marco with the choicest marbles the Venetians

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⁶ Zorzi Dolfin claims that Doge Domenico Selvo (1071 - 1084) had “labored to adorn it with the most magnificent columns that could be found, and they sent out in search throughout the world” (“se lavorava de adornarla de le più magnifiche colonne che potassero trovar et mandono a cerchar per tutto el mondo,” Bartolomeo Cecchetti, *Documenti per la storia dell’augusta ducale Basilica di San Marco in Venezia: dal nono secolo sino alla fine del decimo ottavo dall’Archivio di Stato e dalla Biblioteca marciana in Venezia*, 2 vols. (Venice: Ongania, Ferdinando, 1886): 1:7, no. 60; cf. nos. 55-56). The extent of the 11th-century revetment is unknown. Presumably marble columns were used from the outset, though it is not impossible that they were inserted later.
still had to await the Fourth Crusade of 1204, when the Doge became “Lord of a quarter and one eighth of all the Roman Empire” and Venetian adventurers overran Byzantine fiefs throughout the Aegean.\(^7\) Jewels and relics now began to flood into Venice from the imperial capital, as well as boatloads of columns and slabs to clad S. Marco’s façades and liturgical furniture to pack her interior.\(^8\)

The basilica’s façade (fig. 7.5), in particular, is unique in Europe for its sheer proliferation of marble reliefs, revetment and columns and the only real precedents for this display are Constantinopolitan. Outside the great imperial capital, there were no resources for such opulence, except for a few imperial foundations, and even at home it was only the premier churches that received such kaleidoscopic coatings.\(^9\) The Theotokos church of the Lips Monastery


(founded 968) was partially reveted, possibly the Church of Christ Pantepoptes (Eski Imaret Camii, 1081/87), the imperial church of the Blachernae (after 1069; fig. 7.6) was definitely reveted, and the rich external polychromy of St. Mary Peribleptos (eleventh century) included mosaics and therefore almost certainly revetment too.\(^\text{10}\) Even in Byzantium’s decline, the imperializing Chora and palace chapel of the Grand Logothete (i.e. Chamberlain) Theodore Meteochites (c. 1316-1321) would be similarly endowed.\(^\text{11}\) Scholars normally pick the Apostoleion as the most obvious model for S. Marco’s marble coating, trusting in a recurrent

\(^{10}\) On the north wall of the Katholikon of the Theotokos church of the Lips Monastery “there are indications, in the form of cramp-holes filled with marble wedges, that the lower part of this face was at one time revetted with sheets of marble”: Arthur H. S. Megaw, “The Original Form of the Theotokos Church of Costantine Lips,” *Dumbarton Oaks Papers* 18 (1964): 288. Van Millingen suggested that the strong projection of the external string coursing showed that the exterior of the Pantepoptes was revetted but Ousterhout discounts this possibility in the absence of any cramp-holes: Alexander Van Millingen, *Byzantine Churches in Constantinople: Their History and Architecture* (London: Macmillan and Co., 1912): 18, 216; Robert G. Ousterhout, “Some Notes on the Construction of Christos ho Pantepoptes (Eski Imaret Camii) in Istanbul,” *Deltion tes Christianikos Archaiologikes Etaireias* 16 (1991-92): 52-56.

The Ms illumination of the Blachernae is in the *Chronicle of John Skylitzes* (c. 1150-1175), Biblioteca Nacional, Madrid, fol. 43r. The Blachernae, a three-church complex, was reconstructed after a fire in 1069 only to succumb to another in 1434: Alfons M. Schneider, “Die Blachernen,” *Oriens* 4, no. 1 (1951): 102-05, 19. The Blachernae Palace was the chief residence of the Paleologan emperors (1261-1453).

St. Mary Peribleptos: Clavijo (1403) says, “the main building of the church is adorned externally with numerous figures and designs richly wrought after divers fashions in gold, blue and other colours” (“el cuerpo de la iglesia de partes de fuera es todo imaginado de imagines de muchas maneras, de obra rica de oro e de azul e de otras muchas colores”): Francisco López Estrada, ed., *Embajada a Tamorlán* (Madrid: Clásicos Castalia, 1999), 120; Guy Le Strange, ed., *Clavijo. Embassy to Tamerlane* 1403-1406 (London: George Routledge & Sons Ltd., 1928), 64.

manuscript illumination that is always said to represent this church (fig. 7.7). If they are right, it is odd that no ekphrasist or traveler thought fit to praise the feature and there existed, in fact, other models just as worthy. The west façade of Hagia Sophia, which was Byzantium’s mother church, was also richly marbled (see Chapter 4) and it is quite possible that the Venetians took their cue from the now vanished Pharos Chapel, to whose brilliant Proconnesian sheathing Photius devotes special praise (864; Appendix 4.7). Like S. Marco, the Pharos was not only the repository of the most important relics, those of Christ’s Passion, but stood at the heart of the imperial palace and ceremonial. Like San Marco, the Latins also called the Pharos the “Sancta Cappella.”

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14 Procopius also praises the forecourt of the church at Anaplus and the Constantinopolitan St. John in Hebdomon: “In colour this court resembles beautiful marbles and snow. Those who promenade here delight in the beauty of the stones” (Aed. 1.8.10).

Spolia: Conquest and Continuity

Since all the marbles used to clad S. Marco’s façades are eastern spolia, modern interpreters tend to regard their reuse as prompted by two motivations, triumphalism or continuity. Because Venice had graduated from Byzantium’s vassal to her overlord, it is argued, S. Marco became a billboard for the transfer

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of power, a church re-materialized not just *ex manubiis* but *cum manubiis*. Such triumphalism obviously culminates in the famous quadriga over the main entrance to the church, but Demus has also dubbed the collage of reliefs on the treasury exterior a “trophy wall” (*fig. 7.8*). Another, near-contemporary example to support this view is a church at Djobi in far-off Georgia, where a fourteenth-century warlord concocted a burial chapel out of pulpit rails stripped from the church of his local rival, grouping them under the blunt inscription, “Lord Kacia Dadiani brought these marble furnishings as spoils of war from his enemy Servasidze in Djiket’i” (*fig. 7.9*).

The continuity argument instead situates the display of Byzantine artifacts in the context of Constantinople’s status as a religious capital, for which reason Greenhalgh has stressed the Venetians’ almost exclusive preference for the spolia of eastern Christianity, rather than any pagan predecessor. Such impersonation would also marry S. Marco’s volumetric imitation of the Apostoleion with her external aping of, perhaps, the Pharos Chapel, transposing one city’s material remains onto another to recreate, in Bessarion’s well known words, “almost

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17 The marble types on this wall are identified in Lorenzo Lazzarini, G. Moschini, and B. M. Stievano, “Contributo all’identificazione di marmi italiani, greci e anatolici mediante uno studio petrografico e la determinazione del rapporto Ca/Sr,” *Quaderni della Soprintendenza ai beni artistici e storici di Venezia* 9 (1980): 8-33. I have been unable to consult Francesca Quarisa, *I marmi e le pietre delle facciate esterne della Basilica di San Marco a Venezia*, Tesi di Laurea, Istituto Universitario di Architettura, Dipartimento di Storia dell’Architettura Università di Venezia (relatore Lorenzo Lazzarini, correlatore Ettore Vio), ann. acc. 1996-97, (this copy IUAV biblioteca, area servizi bibliografici e documentali, no. 600).


Chapter 7: Violence and Sanctity

another Byzantium.” Analogously, in nearby Ancona, the only nation to possess an altar in Hagia Sophia, amicable assimilation (and competition with Venice) motivated the use of Byzantine spolia on the thirteenth- and twelfth-century façades of Santa Maria della Piazza and the Duomo (fig. 7.10-11), itself possibly an abbreviated imitation of the Apostoleion.

But there are other alternatives to triumphalism and continuity. Not all spolia were always stolen, some were diplomatic gifts, some were just recycled, and paratactic displays of spolia had become reasonably common in Byzantine decoration by the twelfth century. Moreover, as Maguire has recently argued, some of the reliefs on the Treasury wall are not even spolia at all, but either

20 “quasi alterum Bysantium”: Henri Omont, “Inventaire des manuscrits grecs et latins donnés à Saint-Marc de Venise par le cardinal Bessarion en 1468,” Revue des Bibliothèques 4 (1894): 138. Authentication could sometimes reach the point of impersonation. When the Persian king Chosroes had sacked Antioch seven hundred years earlier, in 540, it was said that he “removed even the marble slabs with which the buildings were overlaid,” and took them back to Ctesiphon, and so completely did he reconstitute the city he had despoiled that its enslaved populace were able to distinguish their new homes at first sight: John of Ephesus (c. 505 – c. 585) and al-Tabari (c. 839 - 923), cited in Coates-Stephens, “Attitudes,” 342; cf. 342-346 for a comparative discussion of the sources.


22 When Metechites fell from grace 1328, the mob ransacked his house but its opus sectile floor was ripped up and sent to the “King of the Western Scyths”: Ludwig Schopen, ed., Nicephori Gregorae Byzantina historia, graece et latine (Bonn: Weber, 1829), 459, ll. 22-24 (IX, 13).

23 Par excellence the Panaghia Gorgoepikoos, Athens (late 12th / early 13th century): Maguire, “Cage,” 169-72. Another good example is the Metropolis church at Mystra, which has paving spolia set into the external apse wall.
mediated copies of Byzantine artifacts or outright fakes. Other items, like amborails, were barely identifiable in their new situation, objets trouvées artfully recomposed into architectural tympana (figs. 7.12). The same went for the sigma-shaped altar-tables, whose long obsolescence made them unrecognizable anyway (figs. 7.13). Finally, although all this spolia is said to come from one place, Constantinople, this tradition was only firmly established in the fifteenth century. The evidence of early Venetian chronicles is scanty, and from an early


25 The lunettes of the bays on the north façade of San Marco display the paired stair-rails of three pulpits.

26 Sigma- (C-) shaped altar-tables are embedded in the lunette over the door to the sacristy (south façade) and in the lunette of the northwest bay of the north transept. Their provenance is unknown. Surveys of the incidence of such altar-tables, 5th-7th centuries, throughout the Mediterranean are found in Otto Nussbaum, “Zum Problem der runden und sigmaförmigen Altarplatten,” Jahrbuch für Antike und Christentum 4 (1961): 29-37; Georges Roux, “Tables chrétiennes en marbre découvertes a Salamine. Anthologie salaminienne,” in Salamine de Chypre, ed. Institut Fernand Courby (Paris: Boccard, 1973), 133-96. They appear in illuminated texts, mosaics and frescoes of the Last Supper: e.g. the 6th-century Rossano Gospels (Codex Purpureus Rossanensis, fol. 3) or the 11th-century Barberini Psalter (Vat. Gr. 372, fol. 68r); nave mosaic in S. Apollinare Nuovo, Ravenna; nave fresco in S. Angelo in Formis, near Naples.


27 “It is said that [the bronze horses] were brought from Constantinople, as were almost all the precious marbles on the temple” (“Allati ex Constantinopoli feruntur, sicut fere caetera preciosa eius temple marmora”): Bernardo Giustinian, De origine urbis venetiarum (1484) cited in Cecchetti,
date Venetian historiography was revisionist, mythogenic, and always met the demands of the Republic’s evolving redefinition. The men who forged Venice’s history were, in fact, liable to stress triumph most in times of sinking fortunes.

**Sacrilege, *Furta Sacra* and Relics**

Nonetheless, no decorative opportunism could disguise, and no Venetian could ignore, the fact that the Byzantine reliefs of saints or Madonnas lining S. Marco’s walls must have been looted from eastern churches, and that the Venetians were therefore as guilty of sacrilege as the Muslims who pillaged the Holy Land. It was even worse that they had defiled the sanctuaries of co-religionists, depriving them of fitting access to God, not to mention dishonoring the Almighty in the process. This was actually an old indictment: when Quintus Fulvius Flaccus had pillaged marble roof-tiles from the Temple of Juno Lacinia near Croton for his own temple of Fortuna Equestris in Rome (173 B.C.), the Senate prosecuted him – using the word *spolia* for perhaps the first time in the sense that we now use – because “by building and beautifying one temple out of the ruins of another he is involving the people of Rome in the guilt of impiety, as though the immortal gods are not the same everywhere, but some must be honored and adorned with the spoils of others.”

Claiming that the Orthodox Greeks were schismatic was a partial justification for the Venetian sacrilege.

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29 Livy 42.3. Cf. Val. Max. 1.1.20.
Apostasy would have been better still, as when, in 864/66, the iconodule Emperor Michael III exhumed, immolated and scattered the remains of his iconoclast predecessor, Constantine V Coprominus (744-775), and then sawed up his sarcophagus to make balustrades for the Pharos church.30

But ultimately the moral conflict of robbing Peter to pay Paul could only be reconciled by regarding the act of theft as a divine favor, and the stones themselves as imbued with a sacred history, and therefore relics. This sacred history far outlasted the temporal guardianship of any particular state and it was the numen of the stone that had recurrently guaranteed the translation of sacrality from one center to another, in innumerable instances from Aachen to Montecassino.31 In the case of Constantinople, the Crusaders even forged documents ahead of time to justify any future seizure of the city’s treasures as merely saving Christ’s relics from the Infidel.32 A late eleventh-century


32 The forged letter (supposedly written c. 1090/91, but perhaps in 1105-1106) purporting to be the Emperor Alexius I’s plea to Count Robert of Flanders and the Latins to seize Constantinople before it fell prey to the Turks, stresses the city’s relics and only then its wealth: Einar Joranson, “The Problem of the Spurious Letter of Emperor Alexius to the Count of Flanders,” The American Historical Review 55, no. 4 (1950): 811-32. Likewise, the only loot that Martin the monk permitted to touch his “consecrated hands” were relics: Richard M. Dawkins, “Ancient Statues in
hagiography also specifies that stealing marbles for a new church was acceptable for “winning the favor of the saint and for the work to be in accord with the divine plan.” Mark’s body itself had been stolen, and the rationale that divine assent legitimized the crime was, in fact, used to justify the “sacred theft” of relics or whole bodies throughout the Mediterranean. Like relics, it was Divine Providence that made the stones available and, like relics, the stones must then decide whether they would budge or not. Thus, Sanuto reports a tradition that, when the Sultan “ordered the precious marble slabs and columns of the church [of the Nativity] to be taken to Cairo, to build him a palace... out of the sound, unbroken wall, from which not so much as a needle could be drawn, there came forth a serpent of wondrous size” that bit into the slabs, splitting them in two rather than let them be moved. Conversely, when the scale of the blocks defeated the resources of the faithful, angels or saints intervened to move them. Even when stones would not move under any circumstances, Divine Providence

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35 Sanuto continues: “even to this day the track of the serpent may be seen on each of the slabs, as though they had been burned with fire. Besides all the rest, it is a miracle how the serpent could pass along them, seeing that the wall is smooth and polished as glass”: cited in Robert Weir Schultz, ed., The Church of the Nativity at Bethlehem (London: B.T. Batsford, 1910), 61. The story is still repeated in Bonaventura Brocardus de Monte Sion, Locorum Terrae Sanctae exactissima descriptio (Cologne: Ioannis Crithius, 1624): cap. IX, 45-46.

36 E.g. the altar in the church of the Virgin Mary on Mount Sion: “There stood the most beautiful red stone for an altar which was transferred by the hands of angels from Mount Sion to India through the prayers of St. Thomas” (“Ibique fuit lapis rubeus pulcherrimus pro altari qui precibus beati Thome a monte Syon in Indiam fuit per manus angelorum translatus”: Georgette de Groer and Jacques Heers, eds., Itinéraire d’Anselme Adorno en Terre sainte: 1470-1471 (Paris: Éditions du Centre national de la Recherche scientifique, 1978), 274.
might step in to provide substitutes; this is what happened to Abbot Suger when quarries were miraculously discovered near home (Pontoise) after he was frustrated in importing antique marbles from Rome to adorn Saint Denis.\(^{37}\)

The best marbles always arrived with some pedigree, whether imperial, paleo-Christian, or purely outlandish: by the ninth century visitors to Hagia Sophia were convinced that its marbles had been ferried away from titanic palaces or fabled lands. The ninth-century *Narratio* began the trend and, six centuries later, Ottoman descriptions still relate that Justinian had removed stones from ancient temples in India, Arabia, Yemen, Maghrib, Persia, China, Turkistan, Byzantium and Europe,\(^{38}\) or that a race of giants had found them at the ends of the earth.\(^{39}\) For the same reasons, when Hagia Sophia eventually ceded pride of place to the Süleymaniye Mosque (1550-57), Suleiman went to the


\(^{39}\) “It is said that the giants traversed the whole world and that they had brought away all the marbles that they found, since no-one beside the giants knew how to find the marble quarries. And even humans cannot see them, since the giants toured the world in an hour and knew everything that existed in the world. The eight columns of Porphyry were found in the Mountains of Kaf. The giants brought these columns from the Mountains of Kaf. They are not found elsewhere and humans have never seen them, from that time up to this day. There is nobody who can know or would be able to say they had some in such and such a place. They say, in fact, they exist but they are not known, that nobody knows them except the giants”: Anonymous 1491 Chronicle, fol. 74; French trans. Yerasimos, *Fondation*: 27.
length of importing columns from temples at sites like Baalbek, precisely because they were said to be palaces of Solomon.40

All in all, then, the dual valency of spolia at S. Marco, that they both confirmed continuity and underscored defeat, offers no real conflict because these agendas were actually two faces of the same coin. They depended on differing, yet mutually sustaining, concepts of time: first the historical succession of empires, and secondly the cosmic time of Christian eschatology. The stones were eternal. It was only the mortal custodians who might change, and only with divine assent.

The Tetrarchs

Among the other readings of spolia that must be considered at S. Marco are not only the sometime mythical origins of marbles but also their occasional magical potential. This applies especially to the most famous of all the spolia at S. Marco, the Tetrarchs (figs. 7.8, 7.14). While it is now certain that this statue group originally stood in the Philadelphion in Constantinople, little consideration has been given to the site of its reinstallation in Venice.41 It does not help that the group is not mentioned until 1561, by which time its figures had come to be identified as Albanian princes, fratricidal brothers and so on.42 Although, again,


we are defeated by any externally reliable sort of evidence, we must attempt some hypotheses.

The tetrarchs stand in an area of the Piazzetta di S. Marco that was once a significant threshold (figs. 7.15-6). Until about 1266, the year that the squares orbiting S. Marco were paved, a canal ran in from the bacino along one side of the piazzetta almost all the way to S. Marco. This canal was a privileged route. Dignitaries disembarking at its head, might enter the water-gate of S. Marco (the Porta da Mar, blocked up in 1505) directly in front of them, or turn right and pass under an arch into the old Palace of Justice (c. 1172-78). The tetrarchs occupied the hinge between these two entrances, the corner of the basilica’s treasury.

They are sculpted in porphyry, a stone whose origins had been lost along with the assurance that it was even natural, a stone that no iron could cut and therefore the most adamantine of cornerstones for a treasury. Indeed, these properties explain why special porphyry columns in Constantinople and Antioch were considered antiseismic lynchpins. They had suffered all acts of God,
including fire and lightning, but still they stood.\(^{45}\) It was even said that the column of Constantine, “was destined to endure the consummation of the world, even after Hagia Sophia had been swept away in the final flood.”\(^{46}\)

The Tetrarchs huddle the treasury wall but have little in common with the dejected and shackled atlantides that had trophaically underpinned antique colonnades.\(^{47}\) They seem rather prophylactic sentinels of the palace and church: they are on guard, they cling together in solidarity, their four heads face city and sea, and their eight eyes watch all approaches.\(^{48}\) The motto inscribed on the plinth below them, in fact, asks us to weigh all opposition before taking any action: “Man may do and say as he thinks, but in thinking let him consider that which may befall him.”\(^{49}\)

Popular belief, both East and West, was predisposed to read life into statuary and, as sculpture in the round ceased to be produced and as the popular

\(^{45}\) During the earthquake of 533, the populace gathered at the foot of the Column of Constantine to chant the litanies: Malalas, *Chron.* 18.77, in Elizabeth Jeffreys et al., eds., *The Chronicle of John Malalas* (Melbourne: Australian Association for Byzantine Studies, 1986), 282. Malalas also recounts that after the great fire of Antioch (37 AD) the magician Debborios had a porphyry column erected in the city centre bearing an incantation (“unshakeable, immovable”) against earthquake: *Chron.* 10.51, in Jeffreys et al., eds., *Chronicle*, 140.


\(^{47}\) Vitr. *De Arch.* 1.1.6.


imagination accredited antique sculpture with ever more wondrous properties, verisimilitude was frequently exchanged for animism.\(^5\) Special skills were supposedly even required to divine living statues from lifeless ones.\(^5\) Moreover, not only could ancient statues harbor inner devils but they could also be activated (\textit{Stoicheosis}) by incantation and installing sympathetic herbs, minerals or amulets within their cavities.\(^5\)

Constantinople was especially famed for its army of talismanic telamons, which the magicians Apollonius of Tyana, and later Leo the Wise, had supposedly marshaled.\(^5\) It is possible, therefore, that when the Venetians stole


\(^{3}\) The \textit{Souda} (10\textsuperscript{th} century) mentions a man who “had a natural talent for distinguishing between religious statues that were animated and those that were not. For as soon as he looked at one his heart was struck by a sensation of the divine and he gave a start in his body and his soul, as though seized by the god. If he was not moved in such a fashion then the statue was soulless and had no share of divine inspiration,” Ada Adler, ed., \textit{Suidae Lexicon}, 4 vols. (Lipsiae: B. G. Teubner, 1928-38), ad vocem “Heraiskos”


the Tetrarchs they were importing not just the effigies of emperors but some of their vital power too.\textsuperscript{54} This power was especially useful in such a fundamental situation as the Treasury corner. Ballads from the Black Sea to the Adriatic recurrently imagined that live persons, often virgins but also luckless drifters, were tossed into the foundations of everything from bridges to churches to insure the buildings against all catastrophes; this tradition is so ancient that it may even explain the cenotaphic origin of Vitruvius’ caryatids.\textsuperscript{55} Such sacrifice gave the building a soul and vivified its foundations. Faith in all such beliefs remained strong at all levels of society, so much so, in fact, that the emperor Basil I (958-1025) had an antique statue recut to bear his own features and then inserted in the foundations of the Nea Ekklesia.\textsuperscript{56}

Conversely, the Byzantines did not shie from lopping the limbs or heads off statues when occasion demanded. Michael I (811-813) had disarmed hostile rabble by amputating the limbs from the city’s statue of Tyche (Fortune),\textsuperscript{57} and John the Grammarian (Patriarch 837-843) had averted a Barbarian invasion of

\textsuperscript{54} Note Brenk’s metaphor of spoliation as cannibalism: “a cannibal does not devour his enemies mainly because he wants to nourish himself but because he hopes that in so doing he will acquire his destroyed enemy’s strength” (Brenk, “Spolia,” 103).


Constantinople by decapitating a statue in the Hippodrome (fig. 7.17). As the heads fell, so also did the barbarian chieftains.\footnote{Mango, “Antique Statuary,” 61 and notes 40-41; Vasiliki Tsamakda, The Illustrated Chronicle of Ioannes Skylitzes in Madrid (Leiden: Alexandros Press, 2002): 109-10 and fig. 60. The fact that the whole episode featured in a chronicle probably illuminated by a Sicilian artist points to another channel of dissemination.\textsuperscript{59}} Moreover, these preoccupations remained topical right up to 1204, when the Constantinopolitan plebs broke up a large bronze of Athena suspected of beckoning the oncoming crusaders with her outstretched hand, and vandalized reliefs on the column of Theodosius that supposedly foretold the invaders’ success.\footnote{Harry J. Magoulias, O City of Byzantium: Annals of Niketas Choniates (Detroit: Wayne State University Press, 1984): 305-06; Mango, “Antique Statuary,” 62-63; James, “Pray Not,” 17. Dawkins, “Ancient Statues,” 221. These beliefs were shared by westerners. It was claimed that Constantine had inscribed a Latin text on the base of his column predicting the fall: Agostino Pertusi, “Le profezie sulla presa di Costantinopoli (1204) nel cronista veneziano Marco (c. 1292) e le loro fonti bizantine,” Studi Veneziani 3 (1979): 13-46. The ominous prophesies of the column of Theodosius were consummated in 1204 when the Emperor Alexius V Murtzuphlus was executed, on the suggestion of the Doge, by throwing him from its summit: Mango, “Legend,” 72-73; van der Vin, Travellers: 1:279; 2: 459 (note 191).\textsuperscript{60}} Some punishment was possibly meted out to the tetrarchs because, like earlier portrait busts and real bodies, their noses are broken, their ears clipped, an eye gouged (fig. 7.18), and a foot went missing altogether.\footnote{Magoulias, O City: 300.\textsuperscript{61}}

For the same reasons, when the crusaders finally broke through the city’s defenses they set about systematically destroying the city’s palladia, “especially those which had been set up against their nation,” because they were convinced that these statues had prolonged the city’s resistance.\footnote{Some punishment was possibly meted out to the tetrarchs because, like earlier portrait busts and real bodies, their noses are broken, their ears clipped, an eye gouged (fig. 7.18), and a foot went missing altogether.\textsuperscript{61}}

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\textsuperscript{58} Mango, “Antique Statuary,” 61 and notes 40-41; Vasiliki Tsamakda, The Illustrated Chronicle of Ioannes Skylitzes in Madrid (Leiden: Alexandros Press, 2002): 109-10 and fig. 60. The fact that the whole episode featured in a chronicle probably illuminated by a Sicilian artist points to another channel of dissemination.

\textsuperscript{59} Harry J. Magoulias, O City of Byzantium: Annals of Niketas Choniates (Detroit: Wayne State University Press, 1984): 305-06; Mango, “Antique Statuary,” 62-63; James, “Pray Not,” 17. Dawkins, “Ancient Statues,” 221. These beliefs were shared by westerners. It was claimed that Constantine had inscribed a Latin text on the base of his column predicting the fall: Agostino Pertusi, “Le profezie sulla presa di Costantinopoli (1204) nel cronista veneziano Marco (c. 1292) e le loro fonti bizantine,” Studi Veneziani 3 (1979): 13-46. The ominous prophesies of the column of Theodosius were consummated in 1204 when the Emperor Alexius V Murtzuphlus was executed, on the suggestion of the Doge, by throwing him from its summit: Mango, “Legend,” 72-73; van der Vin, Travellers: 1:279; 2: 459 (note 191).

\textsuperscript{60} Magoulias, O City: 300.

What is certain is that among the crusaders’ targets in 1204 was the other porphyry group of Constantine’s sons in the Philadelphion known as the “Righteous Judges,” which the invaders devitalized by ritual dissection. A Russian pilgrim relates that these statues were “as large as people and made from red marble. The Franks damaged them; one was split in two and the other had its hands and feet broken and its nose cut off.” Because porphyry is extremely hard, these mutilations required extraordinary efforts.

Having drawn and quartered their quarry (the “Righteous Judges”) the Venetians carried off one of the heads and, once home, installed it on the balcony of S. Marco, overlooking the Porta da Mar. Here the trophy was an example to all, like the spiked head of an executed prisoner, and it can hardly be coincidence that this porphyry head earned its present name, “Il Carmagnola,” from the condottiere decapitated nearby in 1432 (fig. 7.19-20). And if Il Carmagnola impersonates imperial submission, it was a ritual that the Ottomans would actualize a couple of centuries later. According to the Greek chronicler Doukas (c.1400 – c.1462), after Constantinople’s fall in 1453, Mehmet had the head of the last emperor, Constantine XI Palaeologus, “affixed to the column of the Augusteion” and “afterward the skin was peeled off and stuffed with straw, and

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Mehmet sent it around, exhibiting the symbol of triumph to the chief of the Persians and Arabs, and all the other Turks.” By eerie coincidence, an identical punishment had befallen Justinian II (685-695, 705-711), the emperor whom Il Carmagnola is sometimes thought to portray.

**Imitatio Constantinopolis and Talismanic Columns**

If the Tetrarchs and Il Carmagnola were talismans, they were arguably woven into a city fabric that had already appropriated the salient topography of Hagia Sophia, the Imperial Palace and their environs. As Jürgen Schulz has convincingly argued, *imitatio Constantinopolis* was the prime objective behind the new porticoed rectangle of the Piazza S. Marco, begun in 1160-70 and paved in 1266, and this desire can only have gathered momentum with the expansion of the republic’s horizons after 1204.

Thus, S. Marco abuts the Ducal Palace in Venice just as Hagia Sophia neighbored the Great Palace; the *piazzetta* to the sea ([fig. 7.21](#)) doubles for the Augusteion (the colonnaded court linking the Great Palace to the side entrance of Hagia Sophia); and Piazza S. Marco actually impersonates the Hippodrome, with

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65 Harry J. Magoulias, ed., *Decline and Fall of Byzantium to the Ottoman Turks by Doukas. An Annotated Translation of “Historia Turco-Byzantina”* (Detroit: Wayne State University Press, 1975), 232. They were many, competing versions of the emperor’s demise but it is only important that Doukas attached credence to this version.

66 In 711 Justinian II’s head was dispatched “to the countries of the West as far as Rome”: Cyril Mango, Roger Scott, and Geoffrey Greatrex, eds., *The Chronicle of Theophanes Confessor. Byzantine and Near Eastern History, AD 284-813* (Oxford/New York: Clarendon Press, 1997), 529. Il Carmagnola may also have been defaced, for its flattened nose induced Delbrück to claim it was a portrait of Justinian II “Rinotmetos,” whose nose was severed when he was deposed in 695: Richard Delbrück, “Carmagnola,” *Mitteilungen des Kaiserlichen Deutschen Archäologischen Instituts. Römische Abteilung* 29 (1914): 71-89.

the Horses of San Marco at its head like the triumphal stand in Constantinople.\textsuperscript{68} Indeed, Cristoforo Buondelmonti’s schematic views of Constantinople (c. 1420) abbreviate the Hippodrome to a looping appendix of Hagia Sophia (\textit{fig. 7.22}).\textsuperscript{69}

In the latter case, the Venetians had appropriated the hippodrome not as an architectural typology but as the public theater of civic ceremonial. In antiquity, the Hippodrome was never just a racetrack but a meeting ground and pressure-valve for the city’s factions (as the Sienese \textit{Campo} still functions) all under the watchful eye of the emperor. Emperors were crowned or made their first public appearances in the Hippodrome of Constantinople, triumphs processed there, and emperors and patriarchs were also executed here.\textsuperscript{70} Only a few years before the city’s sack at the hands of the Latins, the emperor Manuel celebrated his victory over the Serbs in 1150 with a triumph that ended here. By the thirteenth century it had also become an arena for chivalric pageantry, the presentation of

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\textsuperscript{70} Lethaby and Swainson, \textit{Sancta Sophia}: 175-77.
ambassadors, and other ceremonial that would continue under the Ottomans until at least the seventeenth century.\textsuperscript{71}

In Venice too, the Piazza of S. Marco was the principal arena for the encounter between ruler and people. In 1253, bleachers were erected around the periphery of the piazza and the newly elected doge, Raniero Zeno, appeared to the people of Venice from the loggia of S. Marco; and knights josted in the piazza (presumably) to celebrate his election.\textsuperscript{72} In 1268 the newly elected doge processed in great pomp about the piazza.\textsuperscript{73} And Petrarch details the ceremonial processions, horseracing, jousting and other combats that took place there to celebrate the Venetian victory over the Cretans in 1364.\textsuperscript{74} He even recounts how he accompanied the Doge to the quadriga platform on the façade of S. Marco to oversee the spectacle.\textsuperscript{75} In the crowd’s eyes the Doge had mounted a structure...


\textsuperscript{72} Alberto Limentani, ed., \textit{Martino da Canal. Les estoires de Venise: Cronaca veneziana in lingua francese dalle origini al 1275} (Florence: Leo S. Olschki, 1972), 128-31 (CXXXI-CXXXII; fols. 44r. a – 44v. a): “shortly after he became Doge of Venice, the Venetian nobility had stands built in the Piazza di S. Marco […] and they were covered with silk hangings and the whole piazza was also covered. And then the ladies and their maids ascended the stands, and ladies and their maids appeared in the windows of all the palaces around the piazza; and the Lord Doge appeared at the loggia of the church of S. Marco, and with him the nobility of Venice; and the Venetian people stood in the piazza.” (“et un poi aprés que il fu fait dus de Venise firent li nobles Venesiens fere les loges enmi la place de monseignor saint Marc […] et furent totes couvertes de dras de soie, et la place fu couverte autresi. Et lors monterent dames et damoiselles as loges, et par tresos il palés environ la place se mistrent dames et damoiselles as fenestres; et monseigneur li dus i fus venus as poies de l’eglise de monseignor saint Marc, et aveuc lui la nobilités de Venise; et li peuple venesiens estoient en la place.”) da Canal goes on to describe the jousting (CXXXII; fols. 44v. a–b).

\textsuperscript{73} ?????????????


\textsuperscript{75} “The Doge [Lorenzo Celso] occupied the marbled loggia, which is on the façade of the church above the vestibule and dominates the whole piazza. This is the place where four bronze and gilded horses stand… And lest the heat and brilliance of the sun, which had already reached its zenith, prove a nuisance, the loggia was shaded above and around by rich and multicolored awnings. As many times before, the Doge kindly invited to me to that place and wished me to sit at his right hand” (“Iam dux ipse… frontem templi supra vestibulum occuparat, unde marmoreo
that conflated the *kathisma* (imperial box), starter-gates, cathedral façade and extended triumphal arch. In fact, the façade may have been rebuilt with exactly these goals in mind and its terminal, “outrigger” bays serve no purpose, if not to increase the width of the façade so that it cap and contain this flank of the square.

It follows that there must also have been Constantinopolitan referents for the twin columns that command the *bacino* from the quayside of the *piazzetta* (fig. 7.23), even if they were not actual transplants as Venetian chroniclers once again claim. Medieval travelers to Constantinople, eastern and western, marveled at...
its dense skyline of towering columns, some possibly twice the height of their Venetian cousins, and all were credited with talismanic force.\textsuperscript{79} They were particularly dense in the neighborhood of Hagia Sophia, but in Buondelmonti’s views two always stand out from the crowd \textbf{(fig. 7.22)}.\textsuperscript{80} One was the column of Justinian, the most famous of all, which could be seen a day’s cruise away and overland at half-a-day’s march. The Turks feared this talisman so much, especially his outstretched hand pointed straight at them, that the conquering Mehmet had the equestrian effigy dethroned and broken up and, as we have seen, the emperor’s head nailed to the pedestal.\textsuperscript{81}


Column of Constantine (37 m); of the Goths (c. 18.5 m); of Marcian (c. 17 m); of Theodosius II (c. 15 m); of Leo I (c. 26 m); of Justin II (c. 14 m); of Michael VIII (between 35 and 50 m); of Phocas (unknown): Mango, “Columns,” X.1-20. The Column of Justinian was about 35 m: van der Vin, \textit{Travellers}: II, 453 at note 136). The Venetian columns, without statue, are of St. Mark (c. 14.5 m) and of St. Theodoric (c. 15 m). Max Tondro kindly supplied the Venetian dimensions from old survey drawings: St. Mark’s column without lion = 41.7 \textit{piedi veneziani}, with lion = 48.9 \textit{pv}; St. Theodoric’s column without statue = 43.1 \textit{pv}, with statue = 54.6 \textit{pv}. 1 \textit{piede veneziano} = 0.3477 m or 1.1408 ft.

\textsuperscript{80} Bianca M. Scarfi, \textit{ed.}, \textit{The Lion of Venice. Studies and Research on the Bronze Statue in the Piazzetta} (Venice: Albrizzi Editore of Marsilio, 1990), 127 and 47, note 2). There were probably multiple columns in the Augusteion: van der Vin, \textit{Travellers}: I, 274; Zosima the Deacon in Majeska, \textit{Russian Travelers}: 184. It is not impossible that the Venetians were also inspired by the paired columns of Theodosius and Arcadius, standing until 1509/17 and 1715 respectively. Manuel Chrysoloras’ \textit{Comparison of Old and New Rome} (1411) still extolls Constantinople’s columns as marvels of the city: Guido Cortassa, \textit{ed.}, \textit{Roma parte del cielo. Confronto tra l’Antica e la Nuova Roma} (Turin: Utet, 2000), 87-90.

The Venetian columns also command the sea, composing a monumental pylon that marks the threshold to a city famously protected only by water. From here the Doge’s barque set out for the annual “marriage with the sea.” In fact, originally they stood right on the water (around 1285 the piazzetta was extended beyond them), and they soon acquired effigies, again spolia, of the City’s protectors (a bronze lion for St. Mark by 1293, a stone warrior slaying a dragon for St. Theodore in 1329). Nonetheless, any ideas of defiance were abandoned, for the statues do not look out to sea but subserviently face Venice’s ultimate palladium, Mark’s body within S. Marco. After Constantinople’s loss in 1261, the emperor Michael VIII also built a column, with a statue of himself offering a model of Constantinople to an angel, and this too faced towards the remains of the apostles in their eponymous church, the Apostoleion.

Documents on S. Marco’s early history are paltry when compared to the histories and ekphraseis of Constantinopolitan monuments, thus the above


83 Agazzi, Platea: 137. Perhaps crosses topped the columns before the statues (Constantine’s column in Constantinople received a cross in 1106).

84 Brown, Venice: 19. Likewise, when the columns of Trajan and Marcus Aurelius in Rome were crowned with statues of Sts. Peter and Paul in 1587-88, they faced the Vatican.

hypothesis remains just that. However, Venetian fascination with Constantinople’s totems lingered on until at least the 1540s, when the Venetian nobleman Antonio Priuli attempted to transport a porphyry obelisk to the Campo S. Stefano, where it would have made Venice only the fourth Mediterranean city to vaunt an obelisk.86

**Crime and Punishment**

If II Carmagnola and the Tetrarchs did begin their Venetian residency by broadcasting imperial subjugation or apotropaic defiance, in time they would lend their material identity and landmark status to the judicial function of the piazzetta itself. The whole piazzetta, from the Porta da Mar to the sea, was both a forecourt to the Palace of Justice and the arena for its administration (fig. 7.21). This palace adjoined S. Marco, and legal offices occupied some part of the colonnaded wing that faced onto the piazzetta.87 These structures remained as obvious a venue for pleadings and rulings as had the basilicas and porticoes of

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86 The others are Alexandria, Rome, Constantinople (Paris and New York are obviously excluded). Pierre Gilles, *The antiquities of Constantinople, based on the translation by John Ball* (New York: Italica Press, 1988): 76-77: “When I first arrived in Constantinople [1544]… I saw another [obelisk of Theban stone] in the imperial precinct on the northern side of the first hill. This latter had a square shape […] a little after I saw it lying prostrate outside the precinct and found it to be thirty feet in length. Each of its sides, if I am not mistaken, was six feet broad, and the whole was eight yards in circumference. It was purchased by Antonius Priolus, a nobleman of Venice, who sent it there and placed it in St. Stephen’s Market.” Gilles’ book was published in Lyons in 1561 but was based on a journal written in 1544-47. Ebersolt and Delbrück conclude that Gilles meant the truncated porphyry fragment (14.3 x 1.20 x 1.15 m) now in the gardens of the Archaeological Museum, Istanbul: Jean Ebersolt, *Mission archéologique de Constantinople* (Paris: Ernest Leroux, 1921): 5 at note 3 and pl. XXV; Delbrück, *Antike Porphyrwerke*: 145-46. But this identification is questionable as “Theban stone” can indicate equally basalt, Aswan granite or porphyry. Moreover, the *notitia urbis* (c. 425 AD) cites an “obeliscus Thebaeus quadrus” in the Forum of Theodosius (Strategion): Mango, “Columns,” 19-20.

87 The Palace of Justice was apparently built by Doge Sebastiano Ziani (1172-78) and part of it remained until 1422: Pincus, *Arco*: 37 and note 4. Pincus locates the putative terminal tower on the nearer side of the Porta della Carta, but the massively thick walls of the treasury suggest that it too originally supported a lofty construction.
antique fora. But there was also the biblical precedent of Solomon, who had
dispensed justice from “a porch of pillars” or a domunculus in the midst of a
portico (3 Kings, 6, 7-8), and when Jacopo Bellini imagined the proceedings he
staged them in architectural settings that almost certainly evoked the now
destroyed palace (fig. 7.24). 88

Judgments were pronounced and felons executed in the piazzetta from at
least the mid-thirteenth century, probably earlier, and as late as 1611 the
Venetians were still using the porphyry column drum (“colonna del bando”) below Il Carmagnola to exhibit the severed heads of traitors. Travelers even
complained of the stench. 89 Venice was just one in a series of cities, from archaic
Greece and to eighteenth-century London, that exhibited heads at their portals,
as apotropaia or tokens of justice, and Venetian capital punishment was highly
ritualized. 90 The harshest recriminations were devised for the most heinous
crimes and tailored with a fine eye to symbolic impact. In murder cases the
culprit was conducted by gondola to the scene of the crime, his hand was
amputated, and then he was rowed back to the piazzetta with the offending

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88 E.g. Eisler, Genius: pls. 47, 49, 50, 52, 59, 88 (Enthroned Ruler Presented with Severed Head), 119-22, 52-54 (Judgement of Solomon), 55-56 (Susanna and the Elders Brought Before Daniel), 57, 200-03 (Flagellation), 84-87.

89 “On this stone are laide for the space of three dayes and three nights, the heads of all such as being enemies or traitors of State, or some notorious offenders, have bee apprehended out of the citie, and beheaded by those that have bee bountifully hired by the Senate for the same purpose. In that place do their heads remaine so long, though the smell of them doth breede a very offensive and contagious annoyance. For it hath beeue an auncient custome of the Venetians, whenssoever any notorious malefactor hath for any enormous crime escaped out of the City for his security, to propose a great reward to him that shal bring his head to that stone. Yea I have heard that there have bee twenty thousand duckats given to a man for bringing a traytors head to that place”: Thomas Coryate, Coryats crudities: hastily gobled up in five moneths trauells in France, Sauoy, Italy, Rhetia commonly called the Grisons country, Heluetia alias Switzerland, some parts of high Germany, and the Netherlands (London: William Stansby, 1611): 187. For the Colonna (or Pietra) del bando: Perry, “Saint Mark’s Trophies,” 39-40; Tigler, “Catalogo,” 69, 222-26.

member chained to his neck, only to be hanged or decapitated on a scaffold between her twin columns.\textsuperscript{91} The prolonged torture satisfied not vindictive sadism so much as conviction in the purgative power of pain, a sort of secular martyrdom. Justice must be seen to be done because, as a Venetian jurist says, it was the “soul of the State.”\textsuperscript{92} Absolute justice was the righteous power over life and to execute, “giustiziare.” And Venice herself was Justice.

The marble spolia played leading roles in this grim drama. When the original Palace of Justice was absorbed into the present Doge’s Palace in 1424 - c. 1450, two ominous markers of justice, columns of red, Veronese marble, were retained in the new building and punctuate the otherwise white, Istrian stone arcade of the piazzetta façade (\textbf{fig. 7.25}). These so-called “fatal pillars” were both the epiphanic loge for the Doge and the threshold for capital sentences and punishments.\textsuperscript{93} Legend even records that these columns ran red with blood when

\textsuperscript{91} Guido Ruggiero, \textit{Violence in Early Renaissance Venice} (New Brunswick NJ: Rutgers University Press, 1980): 181. Hanging was the predominant form of capital punishment in Venice until 1382, when beheading was introduced for capital crimes because this was the practice “in the rest of the world.” But decapitation had always been the penalty of choice for nobility. Dandolo mentions an execution in the piazzetta as early as 1264: Ester Pastorello, ed., \textit{Andreae Danduli: Chronica per extensum descripta: an 46-1280 d. C} (Bologna: Zanichelli, 1938), 314, r. 17. Cf. Coryate, \textit{Coryats crudities}: 182.


\textsuperscript{93} Outside the Sala del Maggior Consilio. In 1412 a condemned man was hanged “ad duas columnas rubeas Palatj... ad quas stat Serenissimus dominus Dux ad vedendum festa super Plateam,” Giambattista Lorenzi, ed., \textit{Monumenti per servire alla storia del Palazzo ducale di Venezia: oevero serie de atti pubblici dal 1253 al 1797} (Venice: Visentini, 1868), doc. 141; Wolters, \textit{Bilderschmuck}: 19. Reconstruction of the palace began in 1340, but this wing was replaced from 1422 and was probably completed in 1438 when work began on the Porta della Carta.
the palace’s own architect, Calendario, was supposedly garroted on the spot for his part in the conspiracy of the ill-starred Doge, Marin Falier, in 1354. In the same vein the porphyry Tetrarchs came to be identified as murderers or dueling assassins, and in this theater of blood local ciceroni even assured the seventeenth-century English traveler Thomas Coryate that the pilastri acritani were a gallows to be used only in the event of the highest treason of all, when a Doge turned on his own people. This seems to be a case of the “fatal pillars” story migrating to the nearby twin pillars.

Venetian practice can be placed in a wider context that renders it less outlandish, both in terms of the reuse of spolia and the settings for justice. In Rome, since the ninth century most criminal cases and civil disputes had been adjudicated by an imperial deputy in a tribunal beside the Patriarchal palace at the Lateran; sentences were decreed in the public square, a medieval junkyard of antique bronzes that included the Marcus Aurelius, the She-Wolf and fragments of a colossus of Constantine. Beside these symbols of the imperium passed down through Rome’s pontifs, unfortunates were executed and dismembered and their limbs sometimes nailed up next to the disiecta membra. After the founding of the

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94 “A marvailous faire paire of gallowes made of alabaster, the pillars being wrought with many curious borders and workes, which serveth no other purpose than to hang the Duke whenssoever he shall happen to commit any treason against the State. And for that cause it is erected before the very gate of his Palace to the end to put him in minde to be faithfull and true to his country, if not, he seeth the place of punishment at hand. But this is not a perfect gallowes, because there are only two pillars without a transverse beame, which beame (they say) is to be erected when there is an execution, not else. Betwixt this gallowes malefactors and condemned men (they are to goe to be executed upon a scaffold betwixt the two famous pillars before mentioned at the South end of St. Marks street, neare the Adriaticque Sea) are wont to say their prayers to the Image of the Virgin Mary, standing on a part of S. Marks Church right opposite unto them”: Coryate, Coryats crudities: 187-88.

Comune in 1143, capital punishments were pronounced on the Campidoglio by a re-erected obelisk and a massive statue of a lion devouring a gazelle.\(^{96}\) It can hardly be coincidence that the lion stood also at the top of the antique *Scalae Gemoniae*, the “Stair of Sighs,” from Forum to Capitol where the butchered corpses of political criminals, or just their heads, were exposed and left to rot for weeks before being dragged to the Tiber with hooks;\(^{97}\) or that from the precipitous cliffs of this hill criminals, convicted of capital crimes, were hurled to their death.

The “fatal pillars” also assumed their macabre role thanks to those rituals of civic justice that clung to significant thresholds. Oaths were commonly sworn and sentences pronounced at church doors, and civic judgment at the threshold was a prelude to the ultimate, divine justice that the church interior promised. Open-air or covered but external tribunals were found throughout Europe and, often, as at Rome, they stood outside a church door and faced the communal palace.\(^{98}\) The apsed exedra of the Porta da Mar could have performed the same


\(^{97}\) Filippo Coarelli in *LTUR* 4: 241, *s.v. Scalae Gemoniae*. 
occasional function. No documents again survive to prove the hypothesis but the phenomenon was pan-European. The legal practice is documented from the ninth century onwards and Deimling has detailed extensively examples across France, Germany and Spain, secular and ecclesiastical appeals, contracts, trade agreements and judgements proper were made in church atria, before the Westwerk or at a side portal; at Strasbourg and Léon they took place below statues of Solomon, the most exemplary judge of the Old Testament. Porch or no porch, swearing an oath at the church door was tantamount to doing it at Heaven’s gate. Verzár Bornstein has argued that because late twelfth- and early thirteenth-century cathedral portals in Modena, Cremona and Piacenza were the venues of civic justice, their sculptural relief and architectural detail conflated reflections of Solomon’s Temple with allusions to his throne. San Marco did have a porch, the Porta da Mar, an exedra screened by twin columns standing on recumbent lions – guarddogs against sinners and sentinels at the pearly gates – and scrolled columns exist in the shape of the pilastri acritani, despoiled from the avowedly Solomonic Hagios Polyeuktos in Constantinople. The lions

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abbreviated the elaborate iconography of the Throne of Solomon and supported
the columns but elsewhere, as in Benevento for example, they could surmount
them; the same tradition might account for the famous lion on the
Campidoglio.\textsuperscript{102} In northern Europe the church doors in question were even
painted red, the colour of royalty and regal authority as well as allusive of the
blood debt to be paid in capital trials, in Germany the capital court was, indeed,
the Blood Court and their legal codes were the Blood Books, and oathes were
even taken on \textit{lapides sanguinis}, bloodstones; another positive reinforcer for
adaptng porphyry spolia.\textsuperscript{103} The legend of the Albanian thieves may be a memory
of an actual case, rather than just popular fancy, just as, in the same light, there
may be a grain of truth in the Venetian legend – proskinesis aside – that the
Federico Barbarossa kneeled on a porphyry slab in the atrium when submitting
to Pope Alexander III in 1177.\textsuperscript{104}

The pilastri acritani now seem “spare change” in the topography of the
piazzetta and the biggest mystery is, quite simply, why there is nothing on top of
them. Saccardo hypothesized that they must originally have flanked the Porta da
Mar. If so, then they rehearsed the roles of “Joachin” and “Boaz,” the columns

\begin{footnotes}
\footnotetext{102}{Isa Ragusa, “Terror Demonum and Terror Inimicorum: The Two Lions of the Throne of Solomon and the Open Door of Paradise,” \textit{Zeitschrift für Kunstgeschichte} 40, no. 2 (1977): 93-114.}
\footnotetext{104}{Giovanni Stringa, \textit{La Chiesa di San Marco; Capella del Serenissimo Principe di Venezia} (Venice: Francesco Rampazetto, 1610): 33r: “e giunto alla Porta maggiore trovò ivi il Papa, che lo
aspettava, cioè fra l’una porta, e l’altra nell’angiporto, (dove à punto per memoria e segno di un
tanto fatto, vedesi su’l pavimento nel mezo di tre tavole, overo lastre di pietra rossa, lavorato in
musaico un quadretto à fogliami), avanti il quale chinatosi l’Imperatore, hebbe da lui
l’assolutione, e il perdono de’ successi passati.”}
\end{footnotes}
that guarded the entrance to Solomon’s Temple (1 Kings 21; 2 Chronicles 3:17), inviting the first of many comparisons with the prototypical Temple. Columns assimilating the Solomonic propylon in, or before, church portals are attested in numerous medieval churches up and down the Italian peninsula and across Europe.\textsuperscript{105} The proportions of the pilastri acritani also recommended them to the task.\textsuperscript{106} Moreover, if Saccardo was right, the placing of the Pilastri was also a pilot scheme for the later siting of the colossal columns that overlook the \textit{bacino}. Once the latter were erected, the axis from the sea was definitively displaced. Instead of leading to the Porta da Mar this now led to the Piazza S. Marco, and instead of a route to a church-cum-sepulcher, it became a vector into a communal space at the scale of the city, the pseudo-Hippodrome. The shift either met the demands of growing ceremonial, or inspired a vastly more theatrical venue for it.

Wherever the Pilastri originally stood, once the Palace of Justice had been absorbed into the new Doge’s Palace the judicial character of the piazzetta, and this particular end of it, was still proclaimed by the corner sculpture on the pier

\textsuperscript{105} Anthony Blunt, “The Temple of Solomon with Special Reference to South Italian Baroque Art,” in \textit{Kunsthistorische Forschungen: Otto Pächt zu seinem 70. Geburtstag}, ed. Artur Rosenauer and Gerold Weber (Salzburg: Residenz Verlag, 1972), 258-60; Stefania Tuzi, \textit{Le Colonne e il Tempio di Salomone} (Rome: Gangemi, 2003): 31-34. The pilastri acritani now flank the piazzetta entrance into the Baptistery. Blunt and Tuzi cite freestanding examples at the Duomo of Siena, S. Agostino in Andria (Bari; mid-12\textsuperscript{th} century \textit{and founded by the Knights Templar}), and Casamari (1203-17); attached examples at Borgo San Domenico, Ruvo di Puglia, the Duomo of Piacenza, Sant’Andrea at Maderno (Brescia), S. and Nicola in Bari, S. Maria Maggiore at Tuscania, S. Giovanni in Venere at Fossacesia and at Lund; overscaled pilasters on the Duomo at Cremona, and the churches of S. Eufemia and S. Antonio at Piacenza; columns on lions on the Duomo at Matera and some also bore griffins; at the cathedral of Würzburg the columns are even inscribed “Iachim” and “Booz.”

\textsuperscript{106} The ratio of diameter to height was 1:5, and of capital to shaft 1:3.6. The unit measurement at Hagios Polyeuktos was also – uniquely – the royal cubit, that used at Solomon’s Temple: \textit{Harrison????????????????}. An example of Romanesque portal columns with this measurement is in SS. Salvatore at Chiaramonte Gulfi (Ragusa), Sicily: Tuzi, \textit{Colonne}: 32 and fig. 6.
facing the Tetrarchs, *The Judgment of Solomon*, not to mention the figure of *Justice* over the Porta della Carta itself.†

**Inside the Church: Curtains, Stones as Relics, the Baptistery**

Any implications of military triumphalism, animistic spoliation, or civic justice are abandoned at the doors of S. Marco, because the luminous stones of the nave invoke the Holy of Holies and the kingdom of heaven.‡ The revetment of the nave arcades was once a shimmering white and grey, but the Proconnesian has now dulled to a tan hue thanks to the pig fat with which the Venetians greased the slabs. In the aisles, on the other hand, the marbles are “woven” into the walls (see Chapters 2 and 4). They are clad with broad book-matched bands of varied marbles, alternating in color like giant marquee stripes, and as contemporary observers liked to say, the zigzag veining of such paneling alone could suggest hitched curtains (figs. 7.3-4).§ If religious metaphor underlay this

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§ E.g. Niketas Magister on the church of the Virgin Katapiloianè on Paros: “all its walls [were] reveted with sawn marble… So delicately did the craftsman finish the stone, that the wall seemed to be clothed with purple fabric”: *Vita S. Theoctistae Lesbiae*, ch. 3; Mango, 104. Cf. William of Oldenburg on the palace of John I of Ibelin at Beirut, 1211: “indeed the walls of the palace were
scheme, then the curtained precinct of Moses’ desert tabernacle or the fine wall hangings of the Holy of Holies offered the most appropriate precedents. These archetypes certainly inspired the intarsiated and relief panels of baldachins with parted curtains that appear on the counter-façade of Hagia Sophia and on the tribelon (the columnar screen dividing nave from narthex) of the Kalenderhane Camii. Until 1917 a more elaborate version of such liminal symbolism also dominated the tribelon of Hagios Demetrios, Thessaloniki, where opus sectile panels of open and closed portals stand to either side of drawn curtains depicted in intarsia, just like the real ones that hung within the arches below (figs. 7.26-7).

The attitude to stones as sponges of sacrality also becomes more particularized inside the basilica. Here immured marbles come into their own as everywhere covered with marble slabs, which by the fineness of their work imitate spread curtains” (“Parietes vero domus marmoreis tabulis, que sui operis subtilitate diversas cortinas illic mentiuntur, undique coneguntur.” Johann C. M. Laurent, ed., Peregrinatores medii aevi quatuor: Burchardus de Monte Sion, Ricoldus de Monte Crucis, Odoricus de Foro Julii, Wilbrandus de Oldenborg (Leipzig: J. C. Hinrichs Bibliopolia, 1864), 167). “Diversas cortinas” can mean both “curtains set against each other” and “spread curtains.” For “cortina” in the same sense, and on the Mosaic tabernacle: Vulg. Exod. 26.1, “decem cortinae de bysso retorta” (“ten curtains of fine twined linen”).


contact-relics, following the example of those Constantinopolitan churches, especially Hagia Sophia, which had become galleries of the various slabs and boulders that were milestones in biblical narrative and summarized the landscape of the absent Holy land.\textsuperscript{112}

At S. Marco there were a few stone relics in the nave and narthex, but the greatest concentration was housed in and around the Baptistery.\textsuperscript{113} The Baptistery altar was a massive block of red granite, variously said to be the boulder on which Jesus had stood to preach in Tyre, the stone on which he sat when he asked for water from the Samaritan, the block on which Abraham had tried to sacrifice Isaac, or the peak onto which Moses had climbed to receive the laws.\textsuperscript{114} The Venetians were undeterred by the fact that this granite is only quarried in Aswan. The baptistery also included the two slabs on which the Baptist’s decapitated head had landed, and astonished bystanders perceived


\textsuperscript{113} Serpentine columns in the narthex, in front of Cappella Zen, were said to come from Solomon’s Temple: Francesco Sansovino, \textit{Venetia Citta Nobilissima et Singolare descritta in XIIII Libri...} (Venice: appresso Iacomo Sansovino, 1581): 32v. It is not impossible that this myth had migrated indoors from the \textit{pilastri acritani}. The choir galleries contained the four columns from the “Pergulo della Casa di Pilato,” Sansovino, \textit{Venetia}: 33-34; Stringa, \textit{Chiesa}: 30r, 15r-19r. This legend seems to be borrowed again from the Apostoleion, whose nave vaunted both the column of Christ’s flagellation and that on which Peter wept after denying him: Majeska, \textit{Russian Travelers}: 300-01, esp. notes 70-79. There was also a relief carved in defiance of Diocletian by a Christian sculptor (Stringa, \textit{Chiesa}: 30r/v). This is an elaboration from the \textit{Passio IV Coronatorum}, the story of the four sculptors who suffered martyrdom when they refused to carve pagan idols for this emperor.

\textsuperscript{114} Francesco Dandolo, in Giovanni Meschinello, \textit{La Chiesa Ducale di S. Marco colle notizie del suo innalzamento; spiegazione dell’mosaici e delle iscrizioni; un dettaglio della preziosità della marmi, con tutto ciò che di fuori e di dentro vi si contiene; e con varie riflessioni e scoperte}, 2 vols. (1753-54): 1:62. It was brought to Venice in 1125 by Doge Domenico Michiel.
bloodstains in their veining well into the seventeenth century.\footnote{Meschinello does not mention the stains on “un lastrone grande di pietra Ardese: dicesi essere quello, sopra del quale fu reciso dal manigoldo il Santo Capo,” but he does scathingly add in note “questo è quanto basta per motivo sufficiente di venerazione senza alterare di più,” Meschinello, Chiesa: 1.63.}
The wall of the adjoining Cappella Zen (the ex-\textit{Porta da mar}) sports a thirteenth-century, perforated relief of the Virgin and Child that had once adorned an aqueduct or fountain, perhaps to illustrate the Mother of God as “the life-giving spring” (fig. 7.28).\footnote{A marble relief of the Virgin in the Archaeological Museum in Istanbul has holes drilled through her palms to allow water jets. Similar reliefs are found in Berlin, Athens, Ravenna and Venice: Poulsen, “Talking, Weeping and Bleeding Sculptures,” 192.} The Greek inscription compares the original patron, a certain “Michael” (possibly the Despot of Epirus, 1237-1271), to Moses in bringing forth water from the stone, but in time the enterprising Venetians preferred to interpret it as the actual stone that Moses had struck.\footnote{Demus, \textit{Church}: 121, 87-88; Reinhold Lange, \textit{Die byzantinische Reliefikone} (Recklinghausen: Aurel Bongers, 1964): cat. no. 39, 109-10 (cat. no. 39); André Grabar, \textit{Sculptures byzantines du moyen age} (Paris: Picard, 1976): cat. no. 123, 23). The earliest record of the legend is from 1487.}
The two relics that would have crowned the basilica’s collection, the Stone of Unction and the Stone of Ablution, never arrived despite Venetian attempts to acquire at least one of them. They did, nonetheless, exert an influence upon Venetian painting (see Chapter 8).

By the 1350s, when the Baptistery was eventually decorated, the reputation and sanctity of S. Marco’s miraculous stones and their eastern origins was so consolidated that it became a leitmotiv of the new vault mosaics. As Debra Pincus has shown, the apostles are each shown baptized in fonts of ethnic marbles (\textit{figs. 7.29-30}) that together plot the routes of Evangelism, the
commercial reach of Venice, and thereby the legitimacy of her world-mission.\(^{118}\)

They also mirror the building blocks of the basilica’s aisles (fig. 7.3-4).

**Miraculous Stones: the Monk in the Wall and the Pilastro del Miracolo**

They were other stones in S. Marco that functioned as relics, but not because they were associated with some important site or biblical episode. Instead they were mute stones that acquired their sanctity because they revealed their secrets on site, becoming the venues for supernatural apparitions.

Divine artistry was ongoing, and heaven-sent images were liable to appear at any moment to seal the sanctity of the place with a true presence. Indeed, stories of the Virgin or saints appearing in columns and revetment traversed the Mediterranean with greater ease than the materials themselves, miracles waiting for a place to happen. A good example is supplied by a text written not long after S. Marco’s exterior was reveted, the *Cantigas de Santa Maria*, an anthology of poetry written in the 1270s for Alfonso X King of Castile and Leon. The *Cantigas* illustrate images of the Virgin and Child that suddenly appeared in church piers thanks to the light irradiated by the divine presence (fig. 7.31).\(^{119}\) They also explain the divine mechanics behind the spontaneity of such apparitions:

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\(^{119}\) In the church at Gethsemane: *Cantiga* 29, Kathleen Kulp-Hill, ed., *Songs of Holy Mary of Alfonso X, the Wise: A Translation of the Cantigas de Santa Maria* (Tempe, AZ: Arizona Center for Medieval and Renaissance Studies, 2000), 40; Francisco Prado-Vilar, “In the Shadow of the Gothic Idol: the Cantigas de Santa Maria and the Imagery of Love and Conversion” (Phd, Harvard, 2002), 68, 69-70. This illumination is at Escorial Ms T.I.1, fol. 44r. Cf. Cantiga 187, which tells the story of a girl
Rightfully can God reveal the likeness of Himself or of His Mother in His Creations, for He formed them.

For in creating things in the form they have today or in many other forms, God made not, nor makes any effort, nor gives any thought to shaping them, for He has great power to begin them as well as finish them.

Therefore if He causes images to appear on stones, no one should be amazed at this, nor likewise on plants, for He causes them to grow and gives them many colors to appear beautiful to us.

Therefore it happened in Constantinople, as I learned, that the good Emperor Don Manuel ordered a very noble church built there. And, as I heard, he had blocks of marble brought there from far away and sawn in the middle to make great tablets to place around the altar of the Holy Virgin, Mother of Our Lord. While they were sawing one of them, they saw Her image inside, painted in colors, just as God had painted it ... [stanza missing] ... holding her son, Who took flesh from Her, in Her arms. When the emperor heard of this, he mounted his horse at once, and when he saw the image he worshipped it and had it placed in the main entrance. And there it sits today, and all hold it in great reverence. The Holy Virgin did this to show that She can transform the heart of the sinner by Her grace, since She transformed the hard stone into Her image.\(^\text{120}\)

Such stories became urban legends, for the emperor mentioned in the above *cantiga*, Manuel I Komnenos (1143-80), is renowned for not building a single new church in Constantinople.\(^\text{121}\)

Just such an image is mentioned in Venice fifty years before the *Cantigas* were composed. Around 1222-3, Albertus Magnus witnessed the head of a king who loved the Virgin so much that a divine image was imprinted on her: Kulp-Hill, ed., *Songs*, 224-25. The latter story will become a favorite topos of personal sanctity throughout Europe.


\(^\text{120}\) *Cantiga* 342: Kulp-Hill, ed., *Songs*, 416.

emerge from the book-matched slabs of a block that masons were sawing “for a church,” which all later writers took to be S. Marco (Appendix 7.1). By this date the Byzantine aesthetic that book-matching rivaled “the glory of painting” or instilled order into the chaos of matter (see Chapter 4), took second place to the desire to read images into the symmetrical veining just like Rorschach’s inkblots (klecksograms). This innate imaging evidenced “Nature the artist” as the agent of the Creator, and the images could therefore only be miraculous. Hagia Sophia was full of them, most famously an image of John the Baptist and an entire crucifixion (Appendix 7.2-3; fig. 7.32), and pilgrims repeated the stories when they returned home to others departing for the metropolis now forearmed with expectation.

Superstition played its part in popularizing this perception but it is no coincidence that its ascent coincided with the final defeat of Byzantine iconoclasm. In the debates that wracked the legitimacy of images, the acheiropoieton had occupied pivotal importance in disproving the Mosaic prohibition against graven images. It could not pertain to those images of Christ

122 Albertus records the earthquakes of Lombardy in midwinter 1222-23, to which he must have been eyewitness: Dorothy Wyckoff, ed., Albertus Magnus, Book of Minerals (Oxford: Clarendon, 1967), xiii-xiv.

123 “In the same church of Wisdom at Constantinople, there are two sawn slabs of white marble, whose veins, of a greyish color, flow spontaneously by nature in such a way that they represent the entire image of St. John the Baptist (except for one of his feet which they do not figure well), dressed in a camel skin, which the Turks [still] show to Christians” (“Constantinopolo in eodem Sapientiae templo, sunt duae candidi marmoris disseccti crustae quarum utriusque maculae, nonnihil cinerei coloris, ita sponte naturae discurrunt, ut totam divi Johannes Baptistae, vestiti tergore cameli, imaginem repraesentent: prater alterum pedem quem non satis exprimunt, eas Turcae ostendunt Christianis”): Georg Agricola, De re metallica libri XII: qvibus officia, instrumenta, machinae, ac omnia deniq. ad metallicam spectantia, non modo luculentissime describuntur, sed & per effigies, suis locis insertas, adiunctis latinis, germanicisq. appellotionibus ita ob oculos ponuntur, ut clarius tradi non possint (Basle: Apud H. Frobenium et N. Episcopium, 1556): 631. Illustrated in Marco Antonio Bernia, Bartolommeo Ambrosini, and Ulisse Aldrovandi, Ulyssis Aldrovandi patricij Bononiensis museacum metallicum in libros IIII distributum Bartholomaeus Ambrosinus… studio composuit… Marcus Antonius Bernia propriri impensis in lucem edidit (Bologna: Giovanni Battista Ferroni, 1648): 758, description at 757-758.
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that had been made-without-human-hands: the Mandylion, the Keramion, the images of Camuliana, Melitene and Memphis, and, in the West, the Veil of Veronica and the Shroud of Turin. All these portraits had imprinted themselves into fabrics without human agency and, in the case of the Keramion, a tile had even reproduced the mirror-image of the Mandylion that it covered. The images in marbles were equally innate, and in the case of the Keramion and even the Shroud, there were immediate affinities between book-matching and the reproductive symmetries of the relics.

In any case, by the time Filarete resuscitated Albertus Magnus’ story of the king’s head in the Quattrocento, the image was located on the north transept wall, where more observers persuaded themselves they could see it for another two or three centuries (fig. 7.33). In the interim between Albertus Magnus’ account and Filarete’s rediscovery, ciceroni had perhaps pointed out to visitors the monk in the wall even though no record has survived. But if the image had


“gone missing” altogether, it hardly mattered for its sudden rediscovery through the eyes of faith would only reaffirm the foresight of the divine plan. If one visits Hagia Sophia today, one is shown the “hand of the prophet” and the profile of Attaturk in the sixth-century revetments (figs. 7.34), which must, therefore, have foreseen first the advent of Islam and then the modern Turkish state.\(^\text{127}\)

However, the new image at S. Marco was no longer acclaimed as the head of a king, rather the entire figure of a praying monk or hermit, and one that sounds suspiciously similar to the figure of John the Baptist on view in Hagia Sophia. Today it is hard to see exactly which slabs visitors to S. Marco had in mind but if one wishes to look over their shoulders, and see with their eyes, there is no better comparandum than in S. Vitale, Ravenna. There, uniquely, the image bearing, book-matched slabs remain in situ (fig. 7.35) and may easily be compared with Aldrovandi’s engraving and the descriptions of Renaissance and Baroque visitors, who generally perceived a monk and an altar boy celebrating the Mass (fig. fig. 7.36).\(^\text{128}\) The \(\Lambda\)- and \(V\)-shapes typically produced by book-
matching spontaneously suggested the monk’s cowl or hands joined in prayer, and such images, maybe even the monk at S. Marco (which stood “with hands apparently in prayer”), inspired Cima da Conegliano to superimpose the hands of praying donors over a book-matched dado in his Brera Virgin and Child with Saints (c. 1486-8; fig. 7.37). The wit underlying this instance is that Cima has depicted hands not-made-by-human-hand.

It remains to be noted that the location of miraculous monk at S. Marco, on the external wall of burial chapel of St. Isidore, may have been instigated by its proximity to this hallowed body appropriated from Chios in 1125. Another famous image in a wall, similar to that of S. Marco except not book-matched, the figure of Jerome in the crypt of the nativity at Bethlehem, was long venerated as the permanent shadow of that saint’s devotion to the holy relics in the adjoining grotto (fig. 7.38).

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Pilastro del Miracolo

The climax of the transmission of the Constantinopolitan tradition of stones-as-relics, however, was the legendary resting place of St. Mark himself, the Pilastro del Miracolo (figs. 7.33, 7.39). The story went that after fire had ravaged S. Marco in 976, all knowledge of the apostle’s burial place had gone up in smoke too. Only at the consecration of the new church, on 25 June 1094, did St. Mark’s body miraculously reappear when a pillar, called ever after the Pilastro del Miracolo, split open to reveal it.131

130 “Towards the west, in the middle of the marble, one sees the effigy of a devout Monk in the natural black veins. It is the opinion of the contemplatives that this is St. Jerome, waiting, that this great saint is the true mirror of penitence (one reads, that he burned all over with divine love in these Holy places), for which reason it seems that the Lord saw fit to have nature herself make his portrait so that it could be eternally contemplated by the faithful with devotion and wonderment” (“Verso Tramontana in mezzo al marmo, si vede per linee negre naturali l’effigie d’un devoto Monaco, il quale è opinione de contemplativi, che sia S. Girolamo, atteso, che questo gran santo è vero specchio di penitenza, si legge, che ardesse tutto di divino amore in questi Santi luoghi, onde pare ch’il Signore n’habbia voluto fare il ritratto per mano della natura stessa, acciò, che eternamente potesse contemplarsi da i fideli con devzione, e maraviglia”): Bernardino Amico, Trattato delle piane et imagini de i sacri edificii di Terra Santa, disegnate in Gierusalemme secondo le regole della prospettiva, & vero misura della lor grandezza… (Rome: Ex Typographia Linguarum Externarum, 1609): tav. 8. The engravings are by Antonio Tempesta. Cf. S. Prassede, Rome: “Vi è una pietra nella quale [S. Prassede] era solita di prendere qualche riposo, e vi si vede in qualche parte l’ombra del suo corpo;” Antonio Francesco Ghiselli, “Relazione Osia Diario Del mio Viaggio di Roma Tanto per l’andata come per la permanenza, e ritorno dà quella in Bologna Nel Anno 1683 sotto il Pontificato d’Innocentio XI scritta a Cavaliere Amico,” in British Library (London: 1683), f. 66r.

The story was a fabrication of the 1260s, the invention of an invention. Certainly relics were hidden in walls, capitals, apses and vaults in Italy and Germany, perhaps all Europe, but hollowing out whole pillars to inter saints is unattested.\textsuperscript{132} It hardly matters. It could not have been the present pilastro, which did not exist when Mark’s remains were supposedly hidden and his body was always, and still is, interred in the crypt.\textsuperscript{133} Moreover, the Venetians themselves seemed initially unsure where the miracle had occurred, or whether Mark had emerged from a pillar or a column. The right transept mosaics of San Marco (fig. 7.40), which date to around 1260-65 and therefore coincide with the fabrication of the legend, show a column (not a pillar) and on the wrong side of the church.

Evidently, the artists also puzzled over how a column could even contain a tomb,
which they show emerging like a secret drawer.\(^{134}\) However, by the time that Paolo da Venezia and his sons painted their own version of the *apparitio* in 1345, on the *Pala feriale*, they settled on the present, more ergonomic *pilastro* (fig. 7.41).

If we look for the origin of this myth, the finger of suspicion again points east and again to the Apostoleion, which contained twelve cenotaphs of the Apostles, apparently piers.\(^{135}\) Notably, the relics of St. Luke, Andrew, and Timothy there also vanished only miraculously to reappear later, and even on the same day as St. Mark: 8\(^{th}\) October.\(^{136}\)

The desire to see Mark’s burial place as a column was natural, even automatic, by the twelfth century. St. Paul had called the apostles “columns,” and Eusebius, Durandus, Suger and many others sustained the equivalency.

Even the illuminations in Greek lectionaries could fuel the association, since the Stylites were frequently abbreviated to figures that were half man/half column.\(^{137}\) The trope of the apostle-pillars entered construction when saints were

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\(^{135}\) Cyril A. Mango, “Constantine’s Mausoleum and the Translation of Relics,” *Byzantinische Zeitschrift* 83 (1990): 51-62. Euseb. Vit. Const. 4.58-60: Constantine “erected here twelve coffins just like sacred stelae [θηρας θωσανετ αστηλας ιερας] in honor and remembrance of the apostolic choir and placed in the middle of them his own sarcophagus, on either side of which stood six of the apostles.” Θηρα normally means “casket,” but the apostles’ remains were never installed, perhaps because they were no cavities. It is difficult to visualize empty coffins rather than upright cenotaphs (with relics of the apostles?) especially as Eusebius introduced the Pauline theme of the saint as column into Christian apologetic.


\(^{137}\) E.g. 11\(^{th}\)-century mosaics of St Symeon the Younger, St. Alypius, St. Daniel the Stylite and St. Symeon the elder in the Nea Moni: Doula Mouriki, *The Mosaics of Nea Moni on Chios* (Athens: Commercial Bank of Greece, 1985): 2:pls. 86, 87, 238, 40. Symeon Stylites had the highest visual profile because his feastday opened the hagiographic calendar (1 September) and thus his image always occupies the first leaf of lectionaries, often otherwise unillustrated.
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painted on columns from Bethlehem, to Cefalù, to London; in Otranto, for example, an epigram (c. 1225/50) by the imperial notary John Grasso describes the cross-in-square church of S. Pietro as “well built on the four-fold good order of the pillars, each allotted to an evangelist.” Islamic poets continued the tradition in Ottoman Istanbul. The association also informed the early Gothic taste for portal statues with columnar bodies, and perhaps the last gasp of this tradition in the West is Francesco di Giorgio Martini’s telling misinterpretation of the origins of the Corinthian order (fig. 7.42). Instead of the capital that Callimachus designed from the offerings-basket over a grave swamped by acanthus (Vitr. De Arch. 4.1.9-10), Martini envisions an entire tree-like column enveloping the deceased maiden.


139 E.g. the granite columns in the Süleymaniye Mosque (1550-57), Istanbul, are described as either the Prophet’s four chosen friends who support the house of Islam or the four caliphs who are the four pillars of Sunni theology: Necipoglu-Kafadar, “The Süleymaniye Complex in Istanbul: An Interpretation,” 105.

But the pilastro concealed not a defunct cadaver but a living numen. As the antiphon sung before it on every anniversary (25 June) of the apparitio intones: “Happy the country that was worthy to have so great a protector, at whose command the stones were cleaved in twain, the marbles split by a concealed virtue, insensible things breaking forth through the power of the Holy Spirit within.”¹⁴² This notion of a vitalized column was again ancient, reaching back to tutelary deities that haunted columns, animistic totems, xoana and even meteorites that were so bursting with life that some had to be chained down.¹⁴³ The association persisted in Christian myth. St. Clement, for example, transformed himself into a column when he wished to evade capture (fig. 7.43).¹⁴⁴


Even if the columns did not contain saints some of their numen could still rub off. As Christ had said, if the apostles shirked their mission then the stones “would cry out” (Luke 19:40). Four columns in the crypt of the Anastasis basilica at Jerusalem continually shed tears to mourn Christ’s Passion.\(^{145}\) Arculf, in the seventh century, relates a particularly thrilling yarn about a miraculous pillar in Palestine that bore the imprint of the saint George, because he had been tortured upon it. When a heathen attacked the pillar, his lance and hands remained embedded in it, and he was finally converted. The travails of the saint, the sinner and his horse were all eventually left impressed on the pillar and floor around it.\(^{146}\) Others thought the image the Madonna but Arculf’s story is again

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\(^{145}\) “a lato alle schale del monte Calvario dopo el muro chi è di retro all’altare maggiore… scienderai di sopra in una volta sei scagloni di pietra… troverai una bella chappella… e vedrai IIII, cholonne grande di marmoro, quale sono tonde… e dicesi che queste cholonne continuamente pianghono la passione del nostro signore Yhesu Christo,” Armando Petrucci and Franca Petrucci, eds., Viazo da Venesia al Sancto Iherusalem (Rome: Edizioni dell’Elefante, 1972), 14. The black marble columns are in the chapel of St. Helena and it was said that they had originally supported the judgement-hall of Pilate. They either wept at Christ’s innocence or through compassion for the Virgin. Fabbri ascribed the effect to condensation: Aubrey Stewart, The Book of Wanderings of Brother Felix Fabri (circa 1480-1483), 2 vols. (London: 1893-97): 8:357-59. Similar scepticism of bleeding and sweating statues is in Plutarch (Coriolan. 38. 2). According to Benjamin of Tudela (1161/1162) bronze columns in Rome wept on the anniversary of the destruction of Solomon’s Temple: Thomas Wright, ed., Early Travels in Palestine: Comprising the Narratives of Arculf, Willibald, Bernard, Sawulf, Sigurd, Benjamin of Tudela, Sir John Maundeville, De la Brocquière, and Maundrell (London: Henry G. Bohn, 1848), 68.

\(^{146}\) “In the city of Diospolis is the portrait bust of a certain Confessor George. It stands in a house on a marble column to which people shackled him during a time of persecution when they were going to scourge him… into this house one day rode a hard-hearted fellow on a horse [who] burst into a rage and, moved by the devil, struck the insensible object, the portrait of the holy Confessor, with his lance. But the lance of this aggressive man surprised every one by piercing the surface of the stone column and passing through it as easily as if it had been a snowball, and its iron point sticking fast was retained in the interior and could not be drawn out by any means. Its shaft, however, striking the marble likeness of the sainted Confessor, was broken on the outside. The horse also of that wretched fellow, on which he was mounted, fell dead under him at that moment on the pavement of the house. The wretched man himself too, falling to the ground at the same time, put out his hands to the marble column, and his fingers, entering it as if it were flour or clay, stuck fast impressed in that column. On seeing this, the miserable man, who was unable to extricate his ten fingers, now trapped inside the marble statue of the holy Confessor, called in penitence on the name of God… The man was saved by his faith, and delivered not only from the marble trap, present and visible, but also from the invisible bonds of sin. Hence it clearly appears in what high honour God holds George, who confessed him even under torture, for he caused the bust, naturally impenetrable, to be pierced, the lance of the
instructive about how such beliefs traveled.\textsuperscript{147} A Frankish monk, he had heard this story in Constantinople, but it was recorded for posterity only after Arculf was shipwrecked off Iona and told his tale to the Irish monk Adamnán.

Constantinople wholeheartedly followed upon this tradition of sainted columns, and her churches were replete with upright saints buried in piers.\textsuperscript{148} At Hagia Sophia, between the tenth and twelfth centuries, the Byzantines had installed actual relic-bearing crosses in revetment, but pilgrims were so ready to see columns as saints that claimed whole bodies were interred within these as well.\textsuperscript{149} Their blessed remains radiated curative emissions, and the faithful need only kiss or rub a column to be healed.\textsuperscript{150} Robert de Clari’s account (1204)

\begin{flushleft} aggressor, naturally unable to pierce it, to go in, and the weak fingers of the fellow, also naturally unable to pierce it, to go in. When at first they were trapped in the marble, and his heart was hard, he could not pull them out. But at the moment he was deeply afraid, then softened to penitence, and it was then that, by God’s mercy, he pulled them out. The wonder is that to this day one can see the marks where his ten fingers went in up to the knuckles. Holy Arculf put his own ten fingers where they had been, and his too went in up to the knuckles. Moreover the fellow’s horse, when it fell dead to the floor, had its hip broken in two, and its blood cannot be washed or cleaned off, but to this day remains indelibly marked on the floor of the building,”
\end{flushleft}

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\begin{flushleft} “At Lydda, in Palestine, the Virgin had rested against a column in which her image remained imprinted in such a way that Julian the Apostate did not succeed in erasing it”: Louis Réau, \emph{Iconographie de l’art chrétien}, 3 vols. (Paris: Presses universitaires de France, 1955): 2.2: 70.
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\begin{flushleft} Natalia Teterianikov, “Devotional Crosses in the Columns and Walls of Hagia Sophia,” \emph{Byzantion} 68, no. 2 (1998): 419-45. Teterianikov demonstrates that the revetments were studded with metal reliquary crosses that she regards as station markers. In the Dormition Cathedral, Moscow, “relics of holy martyrs were put under the walls as the saints were painted on the walls above their relics”: Alexei Lidov, “The Sacred Space of Relics,” in \emph{Kristianskie relikvii v Moskovskom Kremle (Christian Relics in the Moscow Kremlin)}, ed. Alexei Lidov (Moscow: Radunitsa, 2000), 13-18, esp. 17-18.
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\begin{flushleft} “Wonderfully decorated stone columns of beautiful marble stand there with the bodies of saints reposing within them. People who are suffering some malady touch what ails them [to these columns] and receive healing,” Stephen of Novgorod (1348/49) in Majeska, \emph{Russian Travelers}: 30. In the medieval mind the image could be originally impressed by the same
endows all the church’s columns with these properties, transforming the interior into a huge apothecary’s cabinet.\footnote{151}

Of all Constantinople’s column-sepulchers, however, the most famous was that of St. Gregory Thaumaturgos in Hagia Sophia. The faithful would kiss “and rub their chests and shoulders against the column to cure sickness,” it sweated, and the column remains a mascot for modern Turks (fig. 7.44).\footnote{152} A separate legend recounted that St. George or St. Michael the Archangel briefly appeared to an apprentice while the church was under construction, only to return to permanent sentry duty within this same pier.\footnote{153} The pilastro in S. Marco

mechanism that would ensure its future dissemination, namely decorication. This originally Epicurean doctrine, repeated by Lucretius, dictated that all things sloughed off a gossamer epiduris that was then received into the eye, and through it the mind and the soul. Appearances were not appearances but rather the vital and essential outpourings of the focal object, or rather subject. Because the radiation was a memory of the original, it could transmit the curative powers of the numen.

\footnote{151} “Il n’y avoit colonne qui ne fussit ou de jaspe ou de porphire ou de riches pierres précieuses. Ne si n’en y avoit nule de ces colonnes qui ne portast medecine: tele y avoit qui guurissoit du mal des reins quant on s’y frotoit, tele qui guurissoit du mal du flanc, et teles qui guurissoient d’autres maladies” (”there was no column which was not of jasper or porphyry or some other precious stone, nor was there one of those columns that did not work cures. There was one that cured sickness of the kidneys when it was rubbed against, and another that cured sickness of the side, and others that cured other ills”): Edgar H. McNeal, ed., \textit{Robert de Clari. The Conquest of Constantinople} (Toronto/London: University of Toronto Press, 1997), 106.


\footnote{153} “They tell that, when one enters by the left-hand door, there is a rectangular column in white marble, at whose foot he disappeared. They say that since the apprentice did not return, they say that this saint also did not depart from there. He disappeared and they say he still remains there. Those who come there today, say that this column has a [beneficial] power, if they rub against the column or scrape it with a knife. They have seen it disappearing and they have decided to cover it with bronze. Certain people say that this holy person is Saint George. Still today, when somebody has some ill, he comes to rub the spot in pain against this column and it is said that this does good,” anonymous 1491 \textit{Chronicle}, 74; French trans. Yerasimos, \textit{Fondation}: 26-27. Evliya Çelebi also recounts that a voice came from the column on the day of the fall of Constantinople: Hammer-Purgstall, ed., \textit{Narrative}, 1:45. In the 9th-century \textit{Narratio}, of which a Latin version circulated by the early 12th century, the same story is told of yet another column: Gilbert Dagron, \textit{Constantinople imaginaire: études sur le recueil des Patria} (Paris: Presses universitaires de France, 1984), vol. 8: 195, 201. The story of St. Michael originally referred to an image in one of the galleries which marked the spot of his apparition: Majeska, “St. Sophia,” 75-76. Like S. Marco, it was later conflated with the column story.
is also adorned with an encaustic image of St. Michael the Archangel, which might have encouraged the association between the two piers, but, more importantly and not coincidentally, both totems occupy corner positions. As Dale has pointed out, the pier of S. Marco stands close to the octagonal “pergolo” where the newly elected Doges presented themselves to the people and a procession to the pilastro annually commemorated Venice’s dedication to St. Mark. The pier, a recognizable mark of continuity from Jerusalem to Constantinople to the center of a new Christian empire under Venice, was eminently suitable as the hub of ducal ceremony. Muraro called it the omphalos of the Venetian State.

**Conclusion: Living Spolia**

By the later middle ages it was claimed that hidden relics held Hagia Sophia up. Brickwork caprices, in the shape of the cross and the tree of life, have been uncovered under her external plaster did figure but presumably they constituted a “hidden salvation program” rather than marking the spots where relics were buried. Nonetheless, the ninth-century Narratio declared that relics had been concealed at crucial points like arch-springings, keystones and in columns, or simply tossed into the mortar of the dome. In the popular

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155 Muraro, “Pilastro,” 60.


157 Version C of the 9th-century Narratio claims that relics were strategically placed in the piers, arches, and large columns: Dagron, Constantinople: 238, note 117; Narratio 14.
imagination, the relics now activated a structure with which they had become consubstantial.

As every cleric knew, Peter was the rock on which Christ had built the universal church, a church “built upon a foundation of the apostles and prophets, Jesus Christ himself being the chief corner stone.” The faithful were its “living stones,” the apostles its “pillars” and Christ had promised that “Him that overcometh will I make a pillar in the temple of my God.” When Venice’s fortunes were at a low ebb after the fall of the Latin kingdom of Constantinople in 1261, the saint trapped in the column signified that Mark had been incarnated within the fabric of the basilica and at the heart of the state. Thus, while the Tetrarchs and the *pilastro del miracolo* occupy spatially diametric positions, their invested meaning may not lie poles apart. They are all pillars of the establishment. The porphyry emperors prop up the treasury, once perhaps the corner tower of the palace of Justice, their embrace emblematic of a state “founded with solid marbles, but whose foundation in civic concord was more solid still.” And if the Tetrarchs are animated guardians of the state and her treasury, Mark is a living pillar of the republic and the cornerstone of her temple.

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160 “solidis fundata marmoribus sed solidior etiam fundamento civilis concordia stabilita,” *Lettere senili* 4: Martellotti, ed., *Petrarca*, 1077. Pincus locates the terminal tower on the nearer side of the Porta della Carta, but the massively thick walls of the treasury suggest that it once supported a
It is the perceived activism of marble spolia that transforms the complex of San Marco and Piazzetta into a stage, but the actors play roles scripted on high. Sansovino explained later that the Doge’s Palace embraced S. Marco because this was the ultimate explanation of the divine plan, as elucidated in Psalm 84. On the final day Peace and Justice will meet and embrace; Final Judgment is the beginning of the everlasting reign of peace. In fact, the corner pier of the palace with the Judgment of Solomon stands above a capital carved with an image of Astraea, the star-maiden that is the harbinger of the new age at the end of time (fig. 7.45). And within the basilica, of course, sat the ultimate judge, enthroned on His Mercy Seat.

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lofty construction: Pincus, *Arco*: 37; Demus, *Church*: 78. Cattaneo hypothesizes that these walls are the remains of a tower from the byzantine castrum: Raffaele Cattaneo, “Storia architettonica della basilica,” in *La Basilica di San Marco in Venezia: illustrata nella storia e nell’arte da scrittori veneziana*, ed. Camillo Boito (Venice: Ferdinando Ongania, 1888-92), 163. The revetment was removed in 1999 and examination of the underlying structure demonstrated that the walls are monolithic: Roberto Cecchi, *La basilica di San Marco. La costruzione bizantina del IX secolo. Permanenze e trasformazioni* (Marsilio, 2003): 84 at note 140); figs. 30-36.


Appendix 7

1) Albertus Magnus on the king’s head in Venice (1222/23?)

I say, then that when I was at Venice, as a young man, marble was being cut with saws to decorate the walls of a church. And it happened that when one marble had been cut in two and the cut slabs were placed side by side, there appeared a most beautiful picture of a king’s head with a crown and a long beard. The picture did not seem to have any fault except one – the middle of the forehead seemed too high, extending up towards the top of the head. And all of us who were there understood that this picture had been made in the stone by nature. And when I was asked the reason for the disproportion of the forehead, I said that the stone had been hardened from a vapor, and in the middle the vapor had risen up too far because the heat was greater there. This picture was the same color as the stone. There is something of the same sort in clouds when they are not disturbed by winds, and all sorts of figures appear in them and continually melt away because of the heat that raises them. But if these vapors were subjected to the influence of a place and a [mineralizing] power, they would fashion many figures in stones. This, therefore, is clear [evidence] that the shape of a simple picture is [made] by nature.

2) Ruy González de Clavijo, Spanish Ambassador, on Hagia Sophia (1403)


En una pared de uno de los dichos sobrados, de la mano esquierda, como omne subía arriba, estaba una [grandísima] losa blanca puesta en la pared, entre otras, en que estaua de suyo propio, sin matizamiento alguno fecha e debuxada, la Virgen Santa María con Jesu Christo en braços, e Sant Juan Bautista, de la otra parte. Estas imágines no eran debuxadas ni pintadas con ninguna cosa de color, ni fechas de entretallamiento, mas de suyo mismo [porque la] propria [piedra nasció assí y se crió con las proprias] venas [y señales] de la piedra [que en ella se parescían y formauanse en ella] e fazian aquellas imágines. E dezían que cuando aquella piedra fue labrada e sacada para poner allí, vieron aquellas imágines en ella; e que por grand milagro o por ser esta dicha iglesia la mayor dela ciudat, fue traído e puesta allí aquella piedra. Estas dichas imágines parescían como que estoviesen entre las nubes del cielo, quando está claro, o como si touiesen un velo delgrado ante sí. E tanto parescían más maravillosas como cosa spritual que Dios quiso allí mostrar. E al pie d’estas imágines, estava un altar a una capilla pequeña en que dezían misa. E aquí en esta iglesia les fue mostrado un cuerpo Santo de un patriarca que estava [entero] en carne e en hueso…

In the wall of one of the side galleries, on the left hand as one ascends there, was a very large white slab of stone set into the wall, amongst several others. Within this slab there appears, of its own substance and not made by human hand with either sculpting or painting, the Virgin Mary with Jesus Christ in her arms, and Saint John the Baptist on the other side; these images were not drawn or painted with any pigment, nor incised in the stone artificially, but [are] of its very substance; for the stone evidently was born this way and created with these veinings and markings in the stone which so clearly make those images formed within; it is said that when this stone was being quarried and sawn to set up with others in some place, these images appeared in it; and because of its wonder or since this church [Hagia Sophia] is the greatest in the city, this slab was brought and set up there; the aforesaid images appear as if standing on clouds in heaven, when it is clear, or as if a thin veil were drawn before them; and they are very marvellous like a spiritual thing which God has decided to reveal to us; at the foot of these images, there stood an altar in a little chapel, where Mass is said; and here in this church we were shown a sacred body of a Patriarch that was entire in flesh and bone.
3) Filarete, on marbles generally, and especially those at San Marco, Venice\textsuperscript{165}

De detti marmi nella grecia ne ancora assai secondo possiamo comprendere per le cose da noi vedute venute di grecia chome e a Roma e anchora a venezia...sono molto begli perché sono molto variati & chiazzati di macchie naturali & in modo che molti paiono quasi come carne salata mischiata biancha e rossa & molte chome dire nugholi & altri venera in altri modi variati & di quelli che diversi animali ci parono dentro per natura fatti in strano modo.

L'esempro se ne puo vedere in venezia nella chiesa di San Marco dove sono molte tavole in nelle quali vi sono dentro varie cose fatte dalla natura in fra quali se mai tu ci vai guarda a man diruta al'entrata d'una chappella d'uno doge & li vedrai proprio una fighura che dirai elle dipinta e de in forma diro mito colla barba & col ciliccio & sta colle mani che pare che adori chome si sia fatta non so ma quella dalla natura fu creatà & quando quelle due tavole furo\[no\] seghate come che aviene d'una tarsia fatta per mano humana così quella apparve appareggiate poi insieme le due tavole dimostrano questa fighura guardale bene vedrai chio ti dicho il vero. Et chosi io inteso che in santa sofìa di ghostantinopoli di simile ne assai & di variete forme d'uomini & d'altri animali siche per adornamento avendo avendo [sic] tu il modo avere di questi che sono molto begli & percio faranno grande honore allo hedeficio perché gli daranno grande hornamento. Come anno fatto e vinitiani alla loro chiesa la quale e chogonosciuta dalli antendenti.

There are still many more marbles of this sort in Greece as we can understand from the things I have seen in Rome and also in Venice that came to us from Greece... they are very beautiful because they are extremely varied and dappled with natural marks in such a way that many, with a mixture of white and red, appear quite like salted meat while many others are like clouds; others are varied in other ways such that different animals appear to lie within, made by nature and made in a strange way. One may see an example in Venice in the church of San Marco where there are many slabs in which there are within various things made by nature [and] amongst which, if you ever go there, look on the right hand side at the entrance to a chapel of a Doge and there you will see an actual figure that you will say is painted and in the form of a hermit with a beard and a hairshirt, standing with his hands in such a way that he seems to be praying; exactly how this is made I do not know, but it was created by nature; and at the time those two slabs were sawn, as happens when an intarsia is made by human hand, then that thing appeared and when the two slabs were set together later they showed this figure; look at it well and you will see that I am telling you the truth. And so I have understood that there are many similar [slabs] in Santa Sophia in Constantinople and with varied forms of men and other animals [in them]; such that, if you have any way to procure such beautiful things they would render great honor to the building because they would ornament it greatly. Just as the Venetians have done in their church, which is known to connoisseurs.

Chapter 8
Relics, Tabernacles and Renaissance Painting

It was not until the mid-Quattrocento that marble revetment gradually resumed its ornamental role in chapels and churches on a scale that could even begin to rival antiquity, and emulation was largely the motivation for the revival. It is also in Italy, where the ruins still afforded abundant stocks for the taking, that the phenomenon originates. On the other hand, simulating marbles on architectural interiors was an unbroken tradition from antiquity, and they begin to be replicated in panel paintings from at least the Trecento.

For most of the Quattro- and Cinquecento, in fact, the new marble trade was not in the material itself but its image. Marble was a symbolic vehicle for artists because of its miraculous image-bearing properties (see Chapter 7), and because such “natural painting” made it a divine medium. While marble spolia had often supplied a religious or political authenticity, in the Quattrocento marble was both a historicizing cue to vanished classical opulence and a stimulus to visualizing intangible essences.

The most symbolically charged representation of marble appears in four interlocking categories of religious painting: representations of the Passion; the Virgin Annunciate; the Coronation of the Virgin; and of the Virgin and Child. In representations of the Passion marbles are not simply narrative props but assume a powerful role as surrogate relics, whether that be the Column of the Flagellation, Christ’s Sepulcher, or the Stone of Unction. In all cases, it was not just the objective type of the relic (column, tomb or slab) but its innate properties, its pattern and color, that clinched the identification. Moreover, once this stone vocabulary and its modes of representation have been recognized the observer...
becomes alive to the implications of similar stones in scenes of the Virgin. As we shall see, the columns and slabs that decorate Marian depictions also announce theological truths and rather than merely authenticating detail.

**Flesh and Blood: The Column of the Flagellation, the Holy Sepulchre and other relics**

The least ambiguous instances of a specific marble iconography appear in representations of the Passion. As one might imagine, zealous pilgrims bent on finding the physical traces of Christ’s earthly life identified numerous classical columns strewn across the Holy Land as the actual column on which He had been flagellated. The trend begins in the early fourth century, when Jerome was the first to report that this column was stained with holy blood and, illogically, that it had once supported the portico of the Temple in Jerusalem; a century and a half later, c. 570 AD, the Piacenza Pilgrim wrote that the same column was now in the Church of the Last Supper on Mt. Zion where pilgrims came to kiss it and soak up its divine residue with bands of cloth; by the fourteenth century another column with the same identification was venerated in the Apostleleon, Constantinople, next to the column on which Peter had wept after his denial of Christ; by 1372 St. Bridget of Sweden noted that half of yet another column stood in a chapel near the Holy Sepulcher, Jerusalem, and the other half in S. Prassede, Rome.¹ It was only, in fact, when the latter relic was installed in S. Prassede in

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¹ PL 22, col. 884 (Ep. 108); in the Holy Basilica of Sion, the Piacenza Pilgrim witnessed “the column at which Christ was scourged, and it has on it a miraculous mark. When he clapsed it, his chest clove to the stone, and you will see the marks of both his hands, his fingers and his palms. They are so clear that you can use them to take ‘measures’ for any kind of disease, and people can wear them around their neck and be cured,” John Wilkinson, *Jerusalem pilgrims before the Crusades* (Warminster: Aris and Phillips, 1977): 83; the Piacenza Pilgrim is followed by Bede (PL 95, col. 362); George P. Majeska, *Russian Travelers to Constantinople in the Fourteenth and Fifteenth Centuries*
1223, that competition officially ended, and this Egyptian offering stand became *the* Column of Flagellation. Even so, it was bafflingly short to have accomplished its task as well as unprepossessingly monochrome (black-and-white). The presence of other more evocative competitors, not to mention the demands of the artistic imagination, did nothing to discourage medieval and Renaissance painters from depicting more gorily veined shafts when they came to scenes of Christ’s torture.\(^2\) In so doing they also remembered the bloodstains that pilgrims claimed to perceive in the rock at Golgotha as well as yet another column of the flagellation on the same spot, again visibly soiled with blood.\(^3\)

Not only did these stains provide the necessary evidence but the stones far outstripped any mere contact relic of the Passion by soaking up the Savior’s blood. In the eyes of the Evangelists, above all Paul, the most precious blood was

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\(^3\) “Still today one sees in the socket of rock [for Christ’s cross] the colour of the blood of Our Lord” and nearby was the column of the flagellation “of blackish porphyry with certain natural, red markings that the people hold to be the bloodstains of Jesus Christ” (“color sanguinis domini nostri Jesu Christi appare hodie in ipsa scissione… Est autem de lapide porfiro submigro habens maculas quasdam rubeas naturaler quas credit vulgaris tincturas esse sanguineas Jesu Christi”): Gabriella Bartolini and Giulio Caporali, eds., *Bernhard von Breydenbach, Peregrinationes: un viaggiatore del Quattrocento a Gerusalemme e in Egitto. Ristampa anastatica dell’incunabolo* (Rome: Roma nel Rinascimento/Vecchiarelli, 1999), unpaginated in facsimile, but 42-43 in Italian translation.
synonymous with Jesus’ Passion and Death, the source of redemption. Indeed, by the fifteenth century Dominican theologians argued that this blood remained united to the Word, and therefore enjoyed the potential to prompt miracles. When artists came to represent such relics a variety of mottled stones offered a ready similitude with Christ’s blood or tortured flesh. Porphyry, “so flaming... it was like blood gushing from a vein,” was a natural stand-in for clotted blood and its antique equation with Tyrolean purple can only have reinforced the association since this dye was itself the blood extracted from the mollusk. Thus, when Leo X (1513-21) wished to commemorate the well in which Praxedis and Pudentiana had supposedly gathered the blood of Christian martyrs, again in S. Prassede, he capped it off with a porphyry rota. Moreover, because porphyry was speckled with white, sometimes pink, granules, to simulate it with pigment seemed already to paint flesh-and-blood.

4 1 Peter, 1: 2.19; 1 John, 1: 7; Apoc. 1: 5; Paul, Rom. 3: 25; Eph. 1: 7; Hebr. 9: 10.
5 Frederick W. Faber, The precious blood, or The price of our salvations (Baltimore: 1860).
6 Dante, Purgatorio, 11.101-102: “porfido... si fiammeggiante, / come sangue che fuor di vena spiccia.”
8 “Il Porphirite... quando il vollemo contrafare in pittura noi facemo un campo di color tarrè [sic] òver lionato rossetto, ma che habbi del scuretto, et dopo con color di carne lì buttamo sopra certi punti minuti col pennello”: Pirro Ligorio, Delle antichità di Roma, Libro XXXVI, Ms., Oxford, Bodleian Library, Ms. Canonici Ital. 38, ff. 108r/v; Anna Schreurs, Antikenbild und
marbles seemed to Filarete “extremely varied and dappled with natural marks in such a way that many, with a mixture of white and red, appear quite like salted meat,” and, more lightheartedly, Andrea del Sarto would eventually capitalize on the resemblance by building a temple out of blood-sausages for a dinner party.9

In altarpieces, however, bloodstained marbles did not necessarily occupy center-stage nor assume forms as recognizable as the Column of Flagellation. They also emerged at the margins of painting, occasionally on the frame, and far more commonly on panel versos. Thus, when the Bolognese painter Dalmasio Scannabecchi (c. 1320-1373) executed a large triptych bracketing a central Crucifixion, he chose particularly gory veining for the faux-marble frame (1333; figs. 8.1-2).10 A further motivation for such streaking was not just the bloodstains at Golgotha but the appearance of the rock of the Sepulcher in Jerusalem, which pilgrims concurred was white veined with red.11

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11 Arculf (7th century) says the rock, “is not plain, but a mixture of red and white, with both colours appearing in the same rock”: Adamnán, De locis sacris, I, 3.1, f. 232 trans. Wilkinson, Jerusalem pilgrims before the Crusades: 96. Giacomo da Verona (1335), “the sepulcher, in which our Lord Jesus Christ… lay dead, is in a small, round chapel and is of white and reddish stone, which is not [artificially] colored” (“sepulchrum, in quo jacuit mortuus… Dominus noster IhesusChristus, est in una parva capella rotunda et est de lapide albo et flavo id est non colorato”: Reinhold Röhricht, “Le Pèlerinage du Moine Augustin Jacques de Véron (1335),” Revue de
Although Christ had not lain in a sarcophagus after death, pictorial and sculptural tradition supplied Him one in scenes of the deposition. The putative casket was represented in two contrary manners: first, as a rich assembly of marbles and precious stones, fulfilling the prophecy of Scripture, “et erit sepulcrum eius Gloriosum” (“And His sepulchre shall be glorious;” Isaiah 11.10), by fusing the image of a reliquary casket with the various imperial sarcophagi and their medieval imitations. We see this first type of tomb, which is typically white and inlaid with three colored panels, time and again in painting and sculpture (figs. 8.3), but eventually in architecture as well. Thus, when Alberti came to simulate the Holy Sepulcher in the Cappella Rucellai at S. Pancrazio (1457-59), Florence, its internal altar was inlaid with three panels (of porphyry; 8.4). Liturgically altars are communion tables over tombs, and this one of course doubles for Christ’s own sarcophagus. But it also overlies the grave of the patron, Giovanni Rucellai, and the tripartite sarcophagus eventually made its

\[l’Orient latin\] 3, no. 2 (1895): 184. Anselme Adorno (1470/71), “In the right part of the church [of the Holy Sepulchre] opposite the choir, steps ascend to the holy hill of Calvary... otherwise called Golgotha. Here stands the small mount of living rock of a white colour but somewhat mixed with red” (“In dextera parte ecclesie in oppositum chori conscenduntur gradus ad montem sanctum calvarie... Golgotha aliter appellatum. Qui est monticulus de viva petra albi coloris rubeo quodammodo immixtus”: Georgette de Groer and Jacques Heers, eds., \textit{Itinéraire d’Anselme Adorno en Terre sainte: 1470-1471} (Paris: Éditions du Centre national de la Recherche scientifique, 1978), 264.


way into tomb architecture in the shape of the triad of marble panels that increasingly form backdrops to Tuscan sarcophagi beginning with Bernardo Rossellino’s tomb for Leonardo Bruni (c. 1446-8, fig. 8.5) in S. Croce, Florence.14

However, an alternative and equally strong tradition depicted Christ’s sarcophagus in a marble that borrowed the bloody veining of Golgotha and the cave tomb. Pictorial play on the similarity between these stones and Christ’s tortured flesh begins with at least Pietro Lorenzetti’s panel of the Entombed Christ (c. 1330; fig. 8.6-7).15 Lorenzetti cunningly draws the frame into the field to confine Christ within a sort of anti-mandorla and internalize the reference to the sepulcher. In the process this rim makes the painting into a tomb because the verso is also marbled, in cream, red and blue streaks that suggest his flesh, veins and wounds.16 Marbleized versos spattered with blood or gushing with veining soon became commonplace on panel paintings with analogous themes. Thus, Marco Zoppo’s Dead Christ with Saints John the Baptists and Jerome (c. 1470; fig. 8.8-9), extends the sepulchral marbling onto the verso, which feigns a slab the color


16 The material characterisation is entirely wilful, for Lorenzetti had preferred cosmatesque-type sarcophagus when he painted the porphyry and serpentine tomb of Christ in the Deposition (c. 1320-28) in the lower church of San Francesco, Assisi.
of dried blood – unless the earth pigment has itself faded to this same brown.\textsuperscript{17}

Another example is the verso of Van Eyck’s \textit{St. Francis receiving the Stigmata} (c. 1428-9), speckled with red paint as though spattered with blood (8.9-10). In this case, the association could hardly have been lost on its original owner, the Bruges merchant Anselme Adorno (1424-1483), whose travel diary records every bloodstained rock he could find in the Holy Land and who completed the octagonal Jerusalemkerk in Bruges in the 1450s to imitate the Holy Sepulchre.\textsuperscript{18}

The marbleized verso communicates a subtler embodiment in Antonio Leonelli da Crevalcore’s \textit{St Francis} (c. 1490; \textbf{figs. 8.11-12}).\textsuperscript{19} On the recto, the saint stands like the “Man of Sorrows” within Christ’s tomb, the \textit{orans} gesture manifesting all the more the gift of the stigmata. On the verso is a concentric disk, composed of nesting rotae, composed of faux-porphyries in deep red (porphyry), deep green (serpentine) and deep brown. Specious attempts to relate this design to the porphyry \textit{rotae} of the nave of St. Peter’s have failed to recognize the figure for what it is, an abstraction of the wounds of St. Francis and the Franciscan habit.\textsuperscript{20}

Indeed, the color of the stigmata had even been determined by Franciscan decree


in 13???. But this sign earns specific symbolic reciprocity thanks to the supreme authority on Francis, Bonaventura’s 1263 *Legenda Maior*, which declared that not only had Francis been transformed into Christ (“Franciscus alter Christus”) by receiving the stigmata but was “painted” by God with the stigmata. He was, in other words, as much an artwork as those miraculous images that appeared within marble without visible cause (see Chapters 1, 7, 11).

Such perceptions were nourished by other contact relics just as famous and just as incarnational as the Column of the Flagellation, but nearer to home. The marble treads of the Scala Sancta at the Lateran Palace, reputedly the steps from Pilate’s palace in Jerusalem, were dappled with the drops of blood that fell from Christ’s body as he climbed to judgment after the flagellation. At S.

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21 Chiara Frugoni, *Francesco e l’invenzione delle stimmate. Una storia per parole e immagini fino a Bonaventura e Giotto*.


23 Habig, *St. Francis*: 732: “True love of Christ had now transformed his lover into his image... [when] St. Francis came down from the mountain... with him he bore a representation of Christ crucified which was not a work of an artist in wood or stone, but had been reproduced in the members of his body by the hand of the living God... [Francis] did his best to conceal the sacred stigmata. However, it is for God to reveal his wonders for his own glory; he had impressed the stigmata on St. Francis in secret, but he publicly worked a number of miracles by them, so that their miraculous, though hidden, power might become clearly known.”

Cristina, Bolsena, the altar was stained red in perpetuity by a Host that spontaneously bled during Mass in 1263 when the priest, Peter of Prague, doubted the true presence in the Eucharist. The Mass at Bolsena became a popular subject in Renaissance painting, immortalized by Raphael in the Vatican Stanze, but while the relic of the altar is more or less forgotten today it was still sufficiently memorable in the sixteenth century for it to be repeated about yet other bloody stones, this time in a Counter-reform chapel in Rome, the Cappella Caetani in S. Pudenziana (1590-1603; fig. 8.13). The tradition was, again, of late-antique invention.

When artists came to represent such relics marble veining was a facile metaphor for bloodstains, but to daub the dark streaks was also akin to painting veins, are visible through brass portholes let into the nutwood treads that have protected the flags since 1723.

25 Xavier Barbier de Montault, Le miracle de Bolsène et le saint corporal d’Orvieto (Lyon: X. Jevain, 1885): 3, 5, 7-8, 11, 13, 14, 15, 16, 18. The tradition is late, however, for the marbles are not mentioned in any early documents: Andrea Lazzarini, Il miracolo di Bolsena: testimonianze e documenti dei secoli XIII e XIV (Rome: Edizioni di storia e letteratura, 1952). Adriano Prosperi, ed., Descrittione di tutta Italia di F. Leandro Alberti Bolognese aggiuntavi la Descrittione di tutte l’isole, anastatic repr. 1568 ed., Venice, Lodovico degli Avanzi ed., 3 vols. (Bergamo: Leading Edizioni, 2003), 2: 70; Andrea Adami, Storia di Volseno antica metropoli della Toscana (Rome: Antonio de’ Rossi, 1734): 94. Since 1693, the altar has been kept in the Cappella del Miracolo in S. Cristina. Three mottled stones are venerated at the altar and a fourth is exposed in a reliquary. The corporal which covered the altar and was similarly stained is instead venerated in the Duomo of Orvieto, founded for its veneration.

26 “Di speciale interesse è la parte sinistra dello scalino dall’altare in cui, gelosamente ricoperte da guardie di bronzo, si vedono delle macchie rossastre penetrate nel marmo che, secondo la pia tradizione, sono l’impronta lasciata dall’ostia consacrata che cadde dalle mani di un sacerdote il quale stava avvicinandola alle labbra pur dubitando del mistero”: Gelasio Caetani, Domus Caetana: storia documentata della famiglia Caetani, 2 vols. (Sancasciano Val di Pesa: Fratelli Stianti, 1933), vol. 2, Il Cinquecento: 326. Two white stones (with rust stains?) are inserted as relics into the presbytery steps, of bardiglio, and were presumably retained from the steps of a medieval altar. Another altar, conserved in the Lateran cloister, has the same distinction: Barbier de Montault, Miracle: 3.

27 An “altar which has on it the blood of Zacharias – you would think it had only been shed today,” as well as the footprints of the soldiers that had killed him, was visible on Temple Mount in he fourth century and by the sixth had been moved in front of the Tomb of Christ in the Holy Sepuchre: Pilgrim of Bordeaux, 591 (Wilkinson, Egeria’s Travels, 157); Breviarius, 3 (Wilkinson, Jerusalem Pilgrims, 60).
in blood, an act of piety or devotion as well as artistry. The artwork resembled the relic by nature as much as by art. The example par excellence of such praxis is Caravaggio’s signature on the *Decapitation of St. John the Baptist* in Valletta (1608), written in the earth below the martyred apostle, apparently in his own blood. But the conceit reoccurs in some baroque sculpture as well. Jennifer Montagu has suggested that the dark veins which disfigure Algardi’s portrait of the penitent Peter (fig. 8.14) figure the tracks of his tears after his denial of Christ (marble relics to St. Peter’s disconsolate weeping did in fact exist in both Rome and Constantinople). In the twelfth century, Michael the Deacon had mused that a marble slab that “puts on the guise of living flesh, and whitish in color, displays all over itself what look like gaping veins of blood,” that “a statue of such material would be a plausible counterfeit of a man” (Appendix 4.12). But one must await the eighteenth century and the three variants of the *Flagellated Christ* carved by Balthasar Permoser, before a sculptor would revive the classical example of the Flayed Marsyas and its bruised marble (see Chapter 1). When Permoser chose an especially bloodshot stone to carve his *Flagellated Christ* (fig. 8.15) he may have had more than artistic wit or homage in mind.29 For the Christ

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28 Private collection: Jennifer Montagu, *Alessandro Algardi*, 2 vols. (New Haven: Yale University Press/J. Paul Getty Trust, 1985): 2: 376-77 (cat. no. 70), pl. 200; Jennifer Montagu, *Roman Baroque Sculpture: The Industry of Art* (New Haven: Yale University Press, 1989): 21 and fig. 23. Cf. Nicholas Muffel: “Afterwards one enters a chapel next to the basilica of St. Peter’s which is octagonal; in this there is a marble altar-stone which is now shiny, over which St. Peter cried, and the teardrops which fell intensely every day, when he thought with desire of his Lord and God, made rivulets which are two braccia long and in some place two digits wide and deep; the stone is discoloured where the teardrops fell” (“Item darnach get man in die cappellen die an Sant Peters munster gesetzt is und ist von VIII ecken; darin stet ein altarstein von merbel der nun polirt ist; darob sand Peter hat geweint und von den tropfen dz so gar hitzicklich und altag teglich darein gefallen sein, so er bedacht hat des verlangen seins herrn und gotts, das man die rünsen, die wol zweier span lanck sind und an etlichen enden zweeyer finger preit und tyff ist und sich enferpt hat, do dy tropfen eingefallen sein.”): Wiedmann, *Nikolaus Muffel*: 50-51. For the column on which Peter wept in the Apostoleion, and next to another Column of the Flagellation, see Chapter 7. Peter weeping at the column is a recurrent motif of Byzantine painting.
that Permoser carved at the end of his life (in 1728) carried his own, hidden portrait on its back, and like a silent prayer this pseudo-relic probably gave shape to his private desires for redemption.

**Blood and Tears: The Stone of Unction and Mantegna**

Despite all the precious relics that the Venetians managed to amass for the Treasury of S. Marco, and all the extraordinary pedigrees they attributed to the basilica’s various marbles (see Chapter 7), they were unable to obtain the two exceptional stones that would have crowned their collection: the Stone of Unction and the Stone of Ablution.

The Stone of Unction was easily the more famous, the slab on which it was said that the dead Christ had been anointed after the deposition from the cross. A mottled, reddish stone with this identification had arrived in Constantinople in 1169-70, when Manuel I Komnenos himself carried it up the hill from the harbor to the chapel of Our Lady of the Pharos, just as Christ had born the cross to Calvary. There it remained until Manuel’s death in 1180, when his widow Eirene had it moved to the emperor’s burial chapel in the Pantokrator church (8.16). To commemorate both acts, a lengthy verse inscription was now inscribed

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on or near the relic to elaborate on how it had been transferred, “rolled” in fact, to Manuel’s tomb to ensure his own Christ-like resurrection and identifying Eirene with the Virgin in the process (Appendix 8).

Here the stone remained in the utmost veneration until the sack of 1453, when it disappeared for good. Before it vanished, however, observer after observer recorded the slab’s miraculous watermark, the tears that the Virgin had shed at the Deposition and that were ever after trapped within its pores. This was not the earliest response, because the *akoluthia* composed by George Skylitzes (mid-twelfth century) diverges from the later tradition, claiming that the slab was a white stone that had been dyed by the Savior’s blood.\(^3\) Thereafter, figure was swapped for ground. The Greek historian John Kinnamos (c. 1180), the Frankish Knight Robert de Clari (1204), the Nestorian Rabban Sauma (1287), the Russian pilgrims Anthony of Novgorod (1348/49), Ignatius of Smolensk (1389) and Zosima the Deacon (1420-22), the Anonymous Armenian Pilgrim (1375/1434), the Spaniard Ruiz Gonzalez de Clavijo (1403), and the Burgundian Bertrand de la Broquièrè (1422-23) all foreground the waxy or milky beads within the marble, which they earnestly believed to be the tears which the Virgin had showered on Christ’s cadaver.\(^3\) Also mentioned by Buondelmonti (Gerola,


\(^3\) “At the end, there was the Saviour’s sacrifice upon the Cross, and His Mother receiving Him laid Him prone, as was customary, on this stone; falling down, she lamented deeply, as was reasonable, and the tears from her weeping reached the stone and still remain there, unexpunged, something rather miraculous”: Charles M. Brand, ed., *John Kinnamos. Deeds of John and Manuel Comnenus* (New York/Guildford: Columbia University Press, 1976), 207. “In this abbey there was the marble slab on which Our Lord was laid when He was taken down from the Cross, and there still could be seen there the tears which Our Lady had let fall upon it”: Robert de Clari in Edgar H. McNeal, ed., *Robert de Clari. The Conquest of Constantinople* (Toronto/London: University of
De la Broquière, who was a court spy on a reconnaissance mission throughout the Middle-East, provides the fullest description:

In the beautiful church of the Pantokrator... one sees a stone, or slab, of various colors which Nicodemus had cut to place over his tomb, and which served him to lay down the body of Our Savior when he was taken down from the Cross. During this time the Virgin cried over the body; but her tears, instead of falling on Him, all fell on the stone, and one can still see them there. At first I thought that they were drops of wax, and stretched out my hand to touch them; then I bent down, so I could look horizontally and against the light, and they seemed to me like frozen drops of water. This is a thing that many people have been able to see, just like me.

The pedestrian explanation is that the marble slab was actually sprinkled with translucent quartz increments, but when Raban Sauma (1287) saw the stone “on which Mary wept” he added, “the place where her tears fell is still wet, and however much the wetness is wiped off, it returns again.” Pilgrims like these,
and presumably innumerable others, soon spread the word to the West where
the relic entered narratives of the Passion, eventually to be diffused by the
fourteenth-century *Vita Christi* of Ludolphus of Saxony, one of the most
influential devotional writings of the late Middle Ages.  

This relic was especially familiar to Venetians, for the Pantokrator church
was occupied by them during the Latin Empire (1204-61), and the relic’s teary
identity was finally reaffirmed in Francesco Sansovino’s translation of
Ludolphus.  

As the slab was famed far and wide, it seems inescapable that this
tradition generated Mantegna’s depiction of spattered marble graining on the
slab under Christ in his famous Brera *Lamentation* (1480s/90s? *fig. 8.17*).  

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may even have motivated the entire composition, for the drama of Mantegna’s painting is best comprehended with this relic in mind, and possibly its original staging in the Pantokrator as well.

This staging, unfortunately, remains somewhat vague because the imperial tombs were evicted from the church in 1453, the altars stripped and the relics dispersed. However, it is clear that the slab was placed on a platform

as Mango notes, “it would be tempting to think that the images of the Women at the Sepulcher and Noli me tangere which are mentioned in the Pantocrator typicon as being in an arch of the herōon [burial chapel] were located above the Stone of the Deposition.”

It is also clear from at least one source that an image of the Virgin Mary was placed directly above the slab, re-enacting the narrative of the


In early 16th-century Venetian painting the slab is sometimes depicted with legs, somewhat like an altar, e.g. Carpaccio’s Entombment of Christ (c. 1505), in the Gemäldegalerie, Berlin; discussed by Maurice E. Cope, The Venetian Chapel of the Sacrament in the Sixteenth Century (New York: Garland, 1979): 34ff.

The seven-domed lid (1.14 x 2.275 m) of Manuel’s sarcophagus (fig. xx) was recovered and lost again in the 18th century: Cyril A. Mango, “Three Imperial Byzantine Sarcophagi Discovered in 1750,” Dumbarton Oaks Papers 16 (1962): 398-99. Megaw assumed that Manuel’s tomb lay beneath the dome, with the Stone of Unction beneath an arch (fig. xx). But the tantalising possibility remains that the slab was set over Manuel’s sarcophagus; were this so, the tomb could provide the model for the equally unusual arrangement of the sarcophagus of Giovanni de’ Medici (c. 1430?) in the Old Sacristy, Florence. For the latter: Howard Saalman, Filippo Brunelleschi: The Buildings (London: Zwemmer, 1993): 130-33. The table over the sarcophagus was in place by 1459 but could date to the 1430s. Saalman instead argues that the arrangement, and chapel as a whole, is derived from the Constantine’s tomb in the Apostoleion, as described by Eusebius, but this is problematic.

relic, posing a model for the grieving empress, and perhaps even implying the
Virgin’s post-mortem intercession on behalf of the deceased emperor.\textsuperscript{40} In any
case, the relic of the slab came alive and maternal agency was celebrated three
times a year, when the Hodigitria (Constantinople’s most famous icon of the
Virgin) was processed to the Pantokrator for an all-night mass in the herôon that
preceded the commemoration days of the emperor, his wife and their son, all of
whom were buried there.\textsuperscript{41}

Returning to Mantegna’s painting, the sharply foreshortened Christ is also
juxtaposed with the magnified and lachrymose heads of the distraught Virgin
and Magdalene. Earlier scholars found the presence of these mourners so
discordant that they argued they were later additions.\textsuperscript{42} But for the story of the
relic, their tear-ducts take precedence over their whole bodies. Likewise,
Mantegna’s bravura in \textit{pittura a scorcio} tends to privilege the slab. At one end an
agate unguent jar, just like the Pantokrator ones that were stolen away to the
Treasury of San Marco, emblematizes the Magdalene and again marks out the
slab as the Stone of Unction. All in all, the painting telescopes the narrative into
an icon, “contains” the relic and the protagonists re-enact its situation. There are
other artworks that “contain” relics in an analogous but more evident manner:
for example, Donatello’s bronze \textit{Deposition} in the Santo (1445-46; \textbf{fig. 8.18}), where

\[\text{Anonymous Armenian Pilgrim (1375/1434): “There is the stone on which they wrapped up}
\text{Christ, above which appears the Mother of God,” Brock, “Medieval Armenian,” 87.}\]

\[\text{Cormack, \textit{Writing}: 209; Paul Gaultier, “Le typicon du Christ sauveur Pantocrator,” \textit{Revue des}
Thomas, Angela Constantines Hero, and Giles Constable, eds., \textit{Byzantine Monastic Foundation}

\[\text{Fiocco, Rathe, Tietze-Conrat, Camesasca and Arslan cited in Lightbown, \textit{Mantegna}: 423.}\]
the sarcophagus is marble ("And His sepulchre shall be glorious"); or a
Flagellation (c. 1372-3) in the Chapel of St. Wenceslas in the Cathedral of St. Vitus,
Prague, where real marbles surrogate the column (fig. 8.19).43

A Symbolic Palindrome: The Virgin, the Stone of Ablution and Proleptic
Marbles

After the Shroud of Turin, the Stone of Unction was the supreme contact
relic of Christ. He had lain upon it and risen from it. However, because the relic
physically contained the tears of the Virgin it belonged as much to Her as to
Christ, substantiating in eternity the bond between human mother and divine
son. It was not alone in this respect for an analogous tale was told of a wall in the
grotto of the Nativity at Bethlehem. Like the rock of Calvary and that of the Holy
Sepulcher, its earth was naturally red but spattered with white, which pilgrims
explained were drops of the Virgin’s milk that Christ had spat out.44

Moreover, the Stone of Unction was not the only marble associated with
Christ’s life or the Virgin’s participation to be venerated in Constantinople.

43 John White, “Donatello’s High Altar in the Santo at Padua. Part One: The Documents and
relief probably inspired another (1470/80), of the same subject and ascribed to Mantegna, wherein
the sarcophagus is gold: Manfred Leithe-Jasper, Renaissance Master Bronzes from the Collection of
the Kunsthistorisches Museum, Vienna (Washington DC: Smithsonian Institution, 1986). Prague:
Klára Benesovská and Ivo Hlobil, Peter Parler & St Vitus’s Cathedral 1356-1399, 1st ed. (Prague:
Prague Castle Administration, 1999): 44-58; Hana Sedinová, “The Symbolism of the Precious
Precious Stones of the Heavenly Jerusalem in the [sic] Medieval Book Illustration and Their
Comparison with the Wall Incrustation in St. Wenceslas Chapel,” De Artibus et Historiae 41 (2000):
31-47.

Travelers record two other reddish stones, relics of Christ’s nativity, in one of the galleries of Hagia Sophia. The first was said to be the stone on which He had been delivered, the second that on which he had been washed post-partum, the Stone of Ablution.\textsuperscript{45} By the seventeenth century, both stones had become praying stations for the faithful within the mosque and were still used to cure sickly children, just as they apparently had before the Muslim conquest.\textsuperscript{46}

While the Stone of Unction was long present in the western imagination, the “petra dove nacque nostro signor Jesu Christo” could not have been more so in the period after the Fall of Constantinople (1453), when the Venetians are said to have offered Mehmet thirty thousand ducats for it. As astronomical as the sum

\textsuperscript{45} Reinhold Lubenau (1587) notes: “In the galleries, under the portrait of Constantine [Monomachos], lies a stone of red-and-white coloured marble, carved out four fingers deep; therein Christ was supposed to have been washed shortly after he was born, this is what a Turkish priest told me himself” (“Unter dem Gemehl Constantini leidt auf der Dielen ein Stein von roht und weisfarbem Marmor, vier Finger einwaerhts gehauen; darein sol Christus, wie ehr gebohren, gewaschen sein, welches mihr der turckische Pfaf selber also erzehlet”): Wilhelm Sahm, ed., \textit{Beschreibung der Reisen des Reinhold Lubenau} (Königsberg: Thomas & Oppermann, 1912), 143; Cyril A. Mango, \textit{Materials for the Study of the Mosaics of St. Sophia at Istanbul} (Washington: Dumbarton Oaks, 1962): 120. The French Capuchin, Pacifique de Provins, instead refers to it (1622): “high up there in this gallery, the Turks, who were guiding us, showed us a small, very flat bowl like a small basin whose lip was two fingers across, and is of red and white marble, which bowl they say was brought here from Palestine, and that was the receptacle for the water from a fountain, and that the Virgin Mary washed the swaddling of the Infant Jesus, and they hold it in great reverence” (“là haut dans cette galerie, les Turcs qui nous conduisoient nous monstrent une petite cuvette assez plate comme un petit bassin qui a deux doigts de bord, & est de marbre rougeastre & blanc, laquelle cuvette ils disent avoir esté apportée de la Palestine, & qu’elle estoit recevant l’eau d’une fontaine, & que la Vierge Marie y lavoit les drapelets de l’Enfant Iesus, & la tiennent en grande reverence”): Mango, \textit{Materials}: 123.

\textsuperscript{46} Evliya Çelebi (c. 1670): “Fifteenth [Station or Place in this Mosque visited as peculiarly fitted for Devotion]. The station of the Lord Jesus’s cradle, in a corner on the eastern side of the upper gallery, is a hollow trough of reddish marble like a cradle, where the Christian women used to place their children when sick in order to obtain their recovery. Sixteenth. The station of the Washing Place of the Lord Jesus. Near the cradle just mentioned above, there is another square trough of stone, where the Prophet Jesus was washed immediately after he was delivered from the womb of his mother Meryem. Kostantín the Ancient, mentioned above, is said to have brought both the cradle and the font from Beïtu-l-lahm to the south of Kudsi Sherif, but the humble writer of these lines saw the washing-trough of Jesus at Beïtu-l-lahm. That children who are crooked and sickly, when washed in the trough in Ayá Sófiyah immediately become straight and healthy, as if revived by the breath of Jesus, is known to all the world”: Joseph von Hammer-Purgstall, ed., \textit{Narrative of Travels in Europe, Asia and Africa in the Seventeenth Century by Evliya Efendi}, vol. 2 (London: The Oriental Translation Fund / W.H. Allen & Co, 1846-50), I:64-65.
was, Mehmet replied that he would not part with it for even a hundred thousand.\footnote{A document of 1489 records amongst the relics offered to the King of France “la petra dove nacque nro sor Jesu xro, che li Venetiani volseno dar al Turcho vecchio trentamila ducati: et lo Gran Sor fece loro resposto, che per centomila non ce la dava… tucte queste relique sono in Constantinopoli in lo palazzo delo gran sor in lo quale palazzo ce le posse lo Gran Turcho morto padre de questo, {[uand}]o prese constantinopo]j”; Franz C. H. Babinger, Reliquienschacher am Osmanenhof im XV. Jahrhundert: zugleich ein Beitrag zur Geschichte der osmanischen Geldprägung unter Mehemd II., dem Eroberer (Munich: Bayerische Akademie der Wissenschaften, 1956): 8, 19, 21; Julian Raby, “El Gran Turco: Mehmed the Conqueror as a Patron of the Arts of Christendom” (D. Phil., University of Oxford, 1980), 99, & note 100. Unfortunately, Babinger confuses this relic with the Stone of Unction, and all subsequent writers follow his error: Babinger, Reliquienschacher: 19, note 1.} It must be remembered that the Shroud of Turin, the only other relic of equal fame in its testimony to Christ’s Passion, and one that had also been conserved supposedly in Constantinople, was purchased by the Savoy family in the same year, 1453.\footnote{In 1355 the Shroud appeared in Lirey, in the possession of Geoffrey de Charney. Louis of Savoy purchased the shroud from Marguerite de Charney in 1453. Literature on the Shroud is vast, but see Silvio Solero, Il Duomo di Torino e la R. Cappella della Sindone (Pinerolo: Alzani, 1956): 138-41; Pietro Savio, Ricerche storiche sulla santa Sindone (Turin: Società editrice internazionale, 1957): 80-130; Giuseppe M. Pugno, La Santa Sindone che si venera a Torino: disegno storico e collegamenti (Turin: Società Ed. Internazionale, 1961): 23-165; Ian Wilson, The Turin Shroud (London: V. Gollancz, 1978): 219-23.} No doubt Venice, and possibly the Savoy too, sought the legitimizing power of such extraordinary relics through the license to safeguard them.\footnote{The Savoy had married members of the last Imperial family of Byzantium, the Palaiologoi, both the main line in Constantinople and the cadet branch at Monferrato: Robert Oresko and David Parrott, “The Sovereignty of Monferrato and the Citadel of Casale as European Problems in the Early Modern Period,” in Stefano Guazzo e Casale tra Cinque e Seicento: atti del Convegno di studi nel quarto centenario della morte, Casale Monferrato, 22-23 ottobre 1993, ed. Daniela Ferrari (Rome: Bulzoni, 1997), 14, 20-21, 22. The Savoys’ purchase of the Shroud could, therefore, be regarded as supporting a dynastic claim to the throne of Constantinople as well.}

But knowledge of both relics seems to have recommended their quotation in Venetian representations of the Madonna and Child, especially in the oeuvres of Giovanni Bellini and Cima da Conegliano. Their quotation was instrumental in demonstrating Christ’s future Passion in representations of his infancy. It was right and fitting that the Passion should cast its material shadow over such
scenes, for the Virgin knew Christ’s destiny from the cradle to the grave. Such foreknowledge is already pathetically perceptible in the symmetries of Pietro Lorenzetti’s aforementioned diptych of the Virgin and Child and the Entombed Christ (c. 1330; fig. 8.6-7). The sorrowful Virgin clasps the swaddled (or shrouded) Christ protectively close to her breast, and her inclined head mirrors that of the entombed Christ on the facing panel. A dark blue silhouette against a gold ground, she contrasts with the profile that the livid corpse cuts against the gloom of the blood-streaked casket. Likewise, the streaked suppedaneum below Mary’s throne in Sano di Pietro’s Virgin and Child (1449; fig. 8.20) obviously prefigures the material of Christ’s sarcophagus on the altarpiece’s predella. Such mineral premonition is equally obvious in Castagno’s frescoes in the refectory of S. Apollonia, Florence (figs. 8.3, 8.3b; c. 1445-50). In the scene of the Last Supper one turbulent panel seems to prefigure the storm that will follow the crucifixion, while the freely invented veining of that adjacent not only gives Judas a “psychological” profile but may represent Christ’s wounds. Finally, when one looks at the wall as a whole, it becomes obvious that the revetment of the closed room preannounces that of the paneled sarcophagi in the scenes of the Crucifixion, Deposition and Resurrection in the register above. Reading the patterns in the stone was no different to chiromancy or scrying in reflective surfaces.

However, in Venetian painting the proleptic stones take the shape of reddish slabs, or white slabs veined with red, that line the lower margin of representations of the Madonna and Child, with the Christ child resting or prone upon it. It takes no great leap of the imagination to accept that the stone ledges

that foreground so many of Giovanni Bellini’s half-length Madonnas, and which so emphatically divide the subject from the viewer, were also consciously premonitory props and metonyms for the Passion. They combine echoes of Christ’s tomb or the Stone of Unction with the image of the near identical Stone of Ablution. In Bellini’s oeuvre perhaps the best example is the Lorcho’s Madonna and Child (c. 1475; fig. 8.21) but Cima is also full of such slabs and parapets. One need only compare his Virgin and Child in Bologna to his Dead Christ with Virgin in Warsaw for the symmetry to become obvious (figs. 8.22, 8.23).

Mantegna’s Presentation of Christ in the Temple (fig. 8.24), variously dated between 1454 and 1466, was painted in roughly the same period as the abortive negotiations to purchase the Stone of the Nativity. Strictly speaking, this is a Presentation, not a Circumcision, and therefore centered on the theme of the Virgin’s purification and so not a typically proleptic scene from Christ’s infancy. But, as Ringbom points out, “Pseudo-Bonaventure made Simeon foretell the Passion having uttered Nunc dimittis” and the painting’s foreboding stillness, the protagonists’ expressions of apprehension or restrained anguish, as well as


52 Humfrey, Cima: cat. nos. 21, 162.


the sepulchral gloom shrouding the background all suggest the Passion. If so, Christ’s swaddling doubles for his winding-sheet, and a red stone frame encircles the figures like the rim of His sepulcher in Lorenzetti’s earlier diptych (fig. 8.6-7). But relic before 19thC fire was acknowledged to be a different colour, or green, or grey, or even black. When the new one was installed, it followed the wishful conventions of painting or the stone of Calvary. Thanks to the function of the Constantinopolitan relics, where the Nativity ablution mirrored the Passion unction, the red stone in Mantegna’s painting became materially the Alpha and Omega of the Christological life-cycle.

55 This reading of Mantegna’s painting seems undermined by the fact that when Giovanni Bellini copied it (in the 1470s? Venice, Galleria Querini-Stampalia) he painted a frame that was green (serpentine), not red: Ringbom, Icon: 77; Lightbown, Mantegna: 405. But the Constantinopolitan Stone of Unction disappeared soon after 1453 and reports of its color varied as much as those of its site. A German pilgrim who saw the other Stone of Unction, now in Jerusalem, in 1483, described it as “a black stone, sprinkled with some red spots, and well polished”, and the caption to the woodcut of it in a Venetian guidebook of c.1500 maintains it is green: In 1484 Felix Fabbri describes it as well: “when we were come out of the chapel [of the Holy Sepulchre] we walked some nine steps further and came to the place where there lies on the floor of the church a black stone, sprinkled with some red spots, and well polished, which stone is said to have been there at the time of Christ’s passion, close by the sepulcher of Joseph of Arimathea… Now Joseph, who had hewn a sepulchre for himself out of the rock at that place, had likewise caused a polished marble table to be made for himself, whereon his body might be washed and anointed. But as he gave up his own sepulchre to Christ, even so did he with his stone of unction”: fol. 117a, in Aubrey Stewart, The Book of Wanderings of Brother Felix Fabri (circa 1480-1483), 2 vols. (London: 1893-97): VIII, 271.

Another guidebook, written at the turn of the 15th century, says: “Come se entra per la porta della chiesia si vede una pietra in porfido di colore verde, la quale pietra è longha VIII passi e più tre dita et è largha una spanna e più un dito. In su questa pietra fu dirizato el nostro Signore con la sancta croce e quivi fu uncto con lo unguento che si chiama aromatico e questa è adornata intorno intorno a schachi a marmori rossi et bianche larghi doe spanne”: Armando Petrucci and Franca Petrucci, eds., Viazo da Venesia al Sancto Iherusalem (Rome: Edizioni dell’Elefante, 1972), 10. The illustrations are attributed to a certain Pietro Ciza. Horn even describes the stone as a “white and grey colour” ("tabula marmoreal albi cinereique coloris"): Eugene Hoade and Bellarmino Bagatti, eds., Fr. Elzear Horn O.F.M., Ichnographiae monumentorum Terrae Sanctae (1724-1744) (Jerusalem: Franciscan Press, 1962), 123.

Bartolomé Bermejo’s Pietà (c.1465-66) may even have been based on an eyewitness account of the same slab: illus. in Eric Young, Bartolomé Bermejo, the great Hispano-Flemish Master (London: Paul Elek, 1975): cat. no. A5 and fig. 9. Cf. his cameo view of the same subject on a slightly later altarpiece (c.1474-77): Young, Bartolomé Bermejo: cat. no. A16 and fig. 32.
Chapter 8: Relics, Tabernacles and Renaissance Painting

Throne-rooms

But colored marbles were also the birth-rite of the Virgin, for after Christ’s death and her own Assumption she would become Queen of Heaven. Throughout European painting, the enthroned Virgin is almost always depicted surrounded by hallucinogenic marbles, often in a chamber that patently represents Her celestial throne-room.56 In early Flemish painting, this function is evident from the saints that introduce the donor and the aerial perspective of the landscapes or city views beyond the crowned Virgin. The celestial penthouse is also frequently supported by columns and columnettes that resemble less true marbles than coral, crystal, or semi-transparent stones half way between alabaster and crystal (fig. 8.25).57 Either these stones aspire to heavenly gems or represent earthly ones in such large-than-life proportions that one could only conclude they were heavenly. Moreover, the supernatural spectacle of such marbled rooms was all the more apparent for the extreme scarcity of chapels, churches or even palaces that were actually decorated with the real material.

Even where the heavenly throne-room is absent, it may be contracted into a cumbersome marble throne, more monument than furniture, or a towering pedestal of steps. Duccio’s Virgin and Child with Four Angels (c. 1315; fig. 8.26), Domenico Veneziano’s Virgin and Child enthroned (c. 1440; fig. 8.27) and Gentile

56 For the same reasons, Solomon’s palace is also occasionally depicted with rich encrustations, as it was built with “costly stones” (3 Kings 7:8).

Bellini’s version of the subject (c. 1470; fig. 8.28) are all good examples.\footnote{National Gallery of Art, London: nos. 6386 (Duccio);1215 (Veneziano); 3911 (Bellini): Jill Dunkerton et al., \textit{Giotto to Dürer: Early European painting in the National Gallery} (New Haven/London: Yale University Press/National Gallery Publications, 1991): figs. 76, 93, 43. Cf. Giotto’s \textit{Ognissanti Madonna}.} In Domenico Veneziano’s version the throne is obviously based on Cosmati church furniture, perhaps an episcopal throne, and in Bellini’s the Madonna sits on a Byzantinizing \textit{Throne of Wisdom} that abbreviates a presbytery or entire church (fig. 8.28).\footnote{The basic work remains Ferdinand Piper, “Maria als Thron Salomons und ihre Tugenden bei der Verkündigung,” \textit{Jahrbücher für Kunstwissenschaft} 5 (1873): 97-137. Cf. Frances Wormald, “The Throne of Solomon and St. Edward’s Chair,” in \textit{De artibus opuscula XL: Essays in Honor of Erwin Panofsky}, ed. Millard Meiss (New York: New York University Press, 1961), 1: 532-39; Ilene H. Forsyth, \textit{The Throne of Wisdom. Wood Sculptures of the Madonna in Romanesque France} (Princeton: Princeton University Press, 1972).} In Giovanni Bellini’s \textit{Pesaro altarpiece} (1471-4; fig. 8.29)\footnote{Carolyn C. Wilson, “Giovanni Bellini’s Pesaro Altarpiece: Studies in Its Context and Meaning” (PhD, Institute of Fine Arts, 1976); Ileana Chiappini Di Sorio, \textit{Giovanni Bellini: Incoronazione della Vergine “Pala di Pesaro”} (Venice: Arsenale, 1986); Maria Rosaria Valazzi, \textit{La Pala ricostituita: l’Incoronazione della Vergine e la cimasa vaticana di Giovanni Bellini. Indagini e restauri}, 1a. ed. (Venice: Cataloghi Marsilio, 1988); Goffen, \textit{Giovanni Bellini}: 123-37.} we instead see a sort of compromise between throne-room and throne, a double-seater apparently inspired by a palace window-nook. Through a window we glimpse a fortress, which signifies either the Heavenly Jerusalem or the Virgin Herself as fortress, because the Virgin is also the \textit{Fenestra Coeli}.\footnote{Wilson, “Giovanni Bellini’s Pesaro Altarpiece”, 139-45; Goffen, \textit{Giovanni Bellini}: 132.} Around this window various porphyries and hardstones interlace like a rosary. But these stones also rhyme with the gems of her crown the object that the frame inscribes. “As the Venetian patriarch Lorenzo Giustinian recounted in his first sermon for the Feast of the Assumption, when Christ welcomed his mother as Queen of Heaven, she acceded to her honor with the words she had spoken when he became incarnate.
‘Ascend to the throne that I have prepared for you, take the crown set with gems’ (Ps. 20:4).”

On other occasions the only hint of the throne-room is an intarsiated suppedaneum or a marbled floor. Thus, the portal lintel under the late Romanesque lunette (c. 1358/88) on the façade of S. Benedetto at Norcia, Umbria, is polychromed to imitate agates and alabasters and double as Mary’s pedestal (fig. 8.30). A marble dais may span the entire composition under the feet of all protagonists to signal their heavenly location. Marble plinths fulfill this function even without the presence of the Holy Family, elevating saints above worldly things and making them into living statues, as we see in Carpaccio (fig. 8.31). We could say the same for Bellini’s St. Terentius on the predella of the aforementioned Pesaro Altarpiece (fig. 8.32).

**The Columns of the Annunciation and Nativity**

The Virgin also had her own suite of columns to compete with the Column of the Flagellation, and they are Her silent partners in a multitude of Annunciations. In fact, this army of columns has generated more mystification than revelation, not least because in several examples the column actually blocks the Archangel Gabriel’s view of the Virgin. Indeed, Michael Baxandall went so far as to remark, about Piero della Francesca’s Annunciation (c. 1455; fig. 8.33), that “if all Christian knowledge were lost, a person could well suppose that both

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64 Bergamo, Accademia Carrara 639.
figures, the Angel Gabriel and Mary, were directing some sort of attention to the column.”65 Baxandall, of course, meant this observation to be ironic, but close inspection of the Annunciation genre actually reveals that far from being a compositional fault the interloping column is a quite willful intrusion.66 Among countless examples, the most instructive is Masolino’s *Annunciation* (c. 1423-24) in the National Gallery, Washington (fig. 8.34).67 Here, the arcade of the canopy overhanging Gabriel and the Virgin terminates in pendent bosses except for the one pinnacle that travels down to ground just so it can segregate the protagonists. In the long sequence of altarpieces that followed on Masolino’s the rogue column may be interpreted as either totem or diaphragm, though neither is mutually exclusive.68

The stand-alone column may again be regarded as a premonitory sign of Christ’s future scourging, a signal of the Divine Plan for His ultimate destiny even at the moment of incarnation, and in some paintings this adumbration might explain the prominent veining chosen.69 Moreover, the specter of the

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future Column of Flagellation haunted another, real one that pilgrim lore located at the scene of Christ’s birth. To be more precise, there are actually three column-relics associated with the Virgin that medieval and early renaissance travelers record. The first column flanked a stone basin (supposedly the cradle of Jesus) in the Sanctuary of the Rock at Jerusalem and the Virgin, it was said, had seized it so fiercely during labor that it still bore her fingerprints.\textsuperscript{70} Exactly the same story was told about a second column, this time where we might reasonably expect to find it, in the grotto of the Nativity at Bethlehem.\textsuperscript{71} This “birthing column” was certainly well known in the West because Pseudo-Bonaventura inserts it into his account of the Nativity, it appears in fourteenth-century illuminations of his \textit{Meditationes Vitae Christi} (fig. 8.35), and would become a standard feature of German Renaissance devotional prints.\textsuperscript{72}

\textsuperscript{69} E.g. Masolino’s \textit{Annunciation} fresco in the Branda Castiglione Chapel, S. Clemente, Rome (c. 1428-1432) – red and white marble; Francesco di Giorgio Martini’s \textit{Annunciation} (Siena, Pinacoteca) – red and white marble; Piero Pollaiolo’s \textit{Annunciation} (c. 1470, Staaliche Museen, Berlin; \textbf{fig. xx}) where the left half of the composition (the “audience chamber”) culminates in a brilliant red column bisecting a bifora; a stridently veined, red column is discreetly inserted into the left tondo of Filippino Lippi’s \textit{Annunciation} (1483, Pinacoteca, San Gimignano). The many tropological interpretations of the column by Hrabanus Maurus are reviewed in Didi-Huberman, \textit{Fra Angelico}: 153-54. On columns as Christ and the Apostles: John Onians, \textit{Bearers of Meaning: the Classical Orders in Antiquity, the Middle Ages, and the Renaissance} (Cambridge: Cambridge University Press, 1988): 70-73 with bibliography. Cf. Chapter 7.

\textsuperscript{70} “In the corner of the east wall is an underground mosque, to reach which you must descend many steps… it contains Jesus’ cradle, which is made of stone and is large enough for many men to pray in. I too prayed there. It is firmly fastened to the floor so that it cannot be moved. This is the cradle the Child Jesus was placed in when he spoke to people [Koran 19:29ff.]… One of these columns has the imprint of two fingers and looks as though someone had grasped it. They say that when Mary was in labor, she held onto this very column”: Wheeler M. Thackston, \textit{Naser-e Khosraw’s Book of Travels (Safarnama)} (Albany, N.Y.: Bibliotheca Persica, 1986): 26 (c. 1075/1100).


A third marble column more directly related to the Annunciation was venerated at Nazareth itself, and this time pilgrims claimed that it was the column that the Virgin had clasped in fear at Gabriel’s arrival.73 This column (and yet another dedicated to Gabriel) appear on old plans of the Grotto of the Virgin at Nazareth (fig. 8.36), and provided an object lesson for the pivotal role that the pillar was assigned in Renaissance painting.74 Furthermore, the manner in which the column bisects so many Annunciation scenes also happens to reflect the manner in which the Grotto of the Virgin at Nazareth is also divided into two chapels, dedicated to Gabriel and the Virgin respectively.75 This brings us to the column as diaphragm.

The Tabernacle of the Virgin

To appreciate this role, it must be recognized that an essential metaphor inhabits any representation of the architecture surrounding the Virgin at the Annunciation. She is almost always, it must be remembered, represented at the moment of conception, the moment when a shaft of divine light guided by the Holy Spirit inseminates Her womb. On a temporal level the bisecting column is necessary, as Didi-Hubermann explains at length, because this is the moment

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Panofsky also cites the myth to explain the frequent emphasis on the solitary column in Netherlandish Nativities.

73 “Ibique est columna marmorea quam ipsa Virgo amplexabatur propter timorem subite angelice visionis”: Anselme Adorno (1470/71), in de Groer and Heers, eds., Itinéraire, 312.

74 Hoade and Bagatti, eds., Fr. Elzear Horn, 259-63.

75 The archaeological soundings are ambiguous, but this much at least is clear: Prosper Viaud, Nazareth et ses deux églises de l’Annunciation et de Saint-Joseph, d’après les fouilles récentes pratiquées (Paris: A. Picard et fils, 1910): 81-108; Bellarmino Bagatti, Gli scavi di Nazaret (Gerusalemme: Tip. dei PP. Francescani, 1984): 54-70; Folda, Nazareth Capitals: 15-30. The church was razed in 1263 and the grotto remained unaccessible for centuries, so transmission must have been oral.
when two worlds or two times, eternity and history, collide. However, on a purely physical plane the enveloping architectural vessel becomes a ready metaphor for Her womb, one that painters cunningly exploited by depicting the room with varying degrees of enclosure and perforation. Indeed, when the Virgin is shown receiving Gabriel in her bedroom we know that the divine light has reached the very penetralia of the sacred house.

Furthermore, theologians taught that the Virgin was not only the mother of Christ but His bride, “Mater Ecclesia,” and the earthly church their offspring. From at least the tenth century the dedication liturgy implied that the physical church materialized this union when it broadcast the verses that described the Apocalyptic Jerusalem as both “bride adorned for her husband” and “the Tabernacle of God” (Rev. 21:2-5). More specific equations between her womb and built architecture had been made for centuries. We will recall that Paul the Silentiary and Michael the Deacon had characterized Hagia Sophia as the “life-giving Queen,” that “could be pregnant with many thousands of bodies,” and that Venantius Fortunatus had said that St. Mary’s in Bordeaux was “filled with light [because] the glittering hall is the image of Mary: she closed the light in her womb and this [church] encloses the day” (see Chapter 4). Lavin has even argued that a womb metaphor must have inspired the huge dome of the Duomo of

76 Didi-Huberman, Fra Angelico: 132-60.


78 The main passage linking Mary with Jerusalem is in Isaiah, 47ff. For a thorough but succinct review: Dictionnaire de la Spiritualité, 8: cols. 944-958; 10: cols. 416-421.
Florence, dedicated to Santa Maria del Fiore (planned 1367), whose high altar was reserved for the sacrament altar, that is Christ not the Virgin, and nestled in its belly. By the seventeenth century, the comparison between the Virgin’s womb and the Holy of Holies could approach lunatic proportions in the orations of the most ecstatic apologists.

The image of the Virgin’s womb as heavenly tabernacle also informed several Quattrocento paintings, the most famous being Piero della Francesca’s *Madonna del Parto* (c. 1450-55; fig. 8.37). Conversely, this metaphor was potentially reciprocal because, by virtue of being a terrestrial vessel for the covenant between man and God, the womb assumed a parity with both the Mosaic Tabernacle and Holy of Holies in Solomon’s Temple.

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bedchamber is identified as the Holy of Holies, for example, in Pollaiolo’s
Annunciation (c. 1470, fig. 8.38) thanks to the copious seraphim adorning the gilt
wall hangings (1 Kings 6:29, 7:50). But the equation was spatially actualized by
the Bellini workshop in the Annunciation (c. 1487/89) on the organ shutters of S. Maria dei Miracoli (fig. 8.39).83

Here the fictive revetment behind the sacred actors reproduces the
revetment of the surrounding church and in particular the discreet and raised
choir, or scarsella, that housed the altar, tabernacle and miraculous image of the
Virgin (figs. 8.40-41).84 The organ housing that the painting adorned even stood
right in front of the choir, on the raised presbytery.85 The reciprocity does not
end there, as the fictive constructions of Venetian painting demonstrably inflect
the overall architecture of the church of S. Maria dei Miracoli as well (1481-87).
For many years a hypothesis has prospered that only in a second moment was
the domed and elevated choir hitched onto the nave Miracoli into which it

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83 Gino Folgolari, “Le portelle dell’organo di S. Maria dei Miracoli di Venezia,” Bollettino d’Arte 4
(1908): 1-32. Attr. Giovanni Bellini and workshop. The shutters are recently attributed to Vittore
Carpaccio: William R. Rearick, “La dispersione dei dipinti già a Santa Maria dei Miracoli,” in
Santa Maria dei Miracoli a Venezia: la storia, la fabbrica, i restauri, ed. Mario Piana and Wolfgang
Wolters (Venice: Istituto veneto di scienze lettere ed arti, 2003), 185-86.

84 For the Miracoli in general, though with no consideration of the hypothesis presented here:
Ralph E. Lieberman, The Church of Santa Maria dei Miracoli in Venice (New York/London: Garland
Publishing, 1986); Wolfgang Wolters, Architektur und Ornament: venezianischer Bauschmuck der
Renaissance (Munich: C.H. Beck, 2000): 50-61; Piana and Wolters, eds., Santa Maria dei Miracoli,
esp. Matteo Ceriana, “L’architettura e la scultura decorativa,” 62-65, 82-86; and for the marbles:

85 On the left wall of the presbytery; the organ shutters were removed in 1817, the organ in c.
1865: Deborah Howard, “The Church of the Miracoli in Venice and Pittoni’s St. Jerome Altar-
projects.\textsuperscript{86} Instead, as Schuller has demonstrated, all walls are continuous and the putative disjunction between the two volumes was intended from the outset.\textsuperscript{87} This separation was accentuated not only by the abundance of light in the choir but also the differing luminosity and materials in the two corps. In the choir the revetments run up to the springing of the dome, spandrels and (innovative) drum included, and the entire proscenium arch is also revetted up to the barrel vault. But in the nave, before nineteenth-century restorations, real marbles only clad the dado zone (or lower third) of the nave walls and the rest was feigned.\textsuperscript{88} Now, since this dado rises to the same level as the projecting presbytery, in material terms the nave would have resembled a long podium, almost a forecourt, to the towering choir. The disjunction between nave and choir must have served an iconographical purpose, as the great height of the latter certainly did not facilitate the liturgy, nor even the visibility of the officiant. While this choir houses a miracle-working icon of the Virgin, that is a divine medium more than an artwork, it must be remembered that the church was dedicated to the Immaculate Virgin, that is the Virgin as spotless and perfect vessel for the divinity of Christ.

In this light, the choir and its approach find their most meaningful precedents in contemporary painting. The whole construct is, in fact, the fruit of


\textsuperscript{87} Manfred Schuller and Maren Lüpnitz, “Rilievi e risultati delle indagini della \textit{Bauforschung},” in Piana and Wolters eds., \textit{Santa Maria dei Miracoli}, 367-84.

\textsuperscript{88} The median zone, at the level of the organ, was either painted plaster or \textit{marmorino}, faux-\textit{pavonazzetto} panels divided by black marble strips: Lieberman, \textit{Church}: 278-79; Howard, “Church,” 689-90; Ceriana, “Architettura,” 85-86; Schuller and Lüpnitz, “Rilievi,” 350.
the collaboration between painters, sculptors and architects. But architectural
and pictorial imaginations blend because the symbolic architecture desired could
be built in either paint or marble. The beetling staircase, originally even steeper,
evokes the plinths and steps that lead up to the throne of the Virgin in the
innumerable altarpieces, and the choir becomes her throne room (see above). But
since this choir, a drum-and-dome on pendentives, which is even marbled on its
pendentives and drum – a technical innovation – is a centrally-planned space it
may be considered both a baldachin and enormous tabernacle. In this respect it is
the built equivalent of those altars that extend the architectural frame into the
altarpiece to construct a fictive baldachin, most famously Bellini’s earlier S.
Giobbe altarpiece (c. 1480; fig. 8.42).89

With Bellini’s Annunciation on the organ shutters in mind, and the
dialectic between painting and architecture in the Miracoli as a whole, it becomes
slowly obvious that the pictorial desire to assimilate the Virgin’s house to the
Temple, church or an all’antica house did not serve some archaeological
perfectionism alone. This would not explain all aspects of the loving, sometimes
obsessive, fashion in which these fictive marble interiors are often depicted, nor
the often searching painting of the marbles themselves.90 This is particularly true
for Fra Angelico and Lippo Lippi, in whose works the incarnation metaphor

89 John Shearman, Only Connect… Art and the Spectator in the Italian Renaissance. (Princeton: The
National Gallery of Art Washington DC/Princeton University Press, 1992): 64-65, 94-96; Rona

90 Several Annunciations do demonstrate investigation into the nature of the antique house.
Domenico Veneziano’s famous Annunciation (Fitzwilliam Museum, Cambridge) seems a
sectional view into an antique atrium with the hortus visible beyond; Piero Pollaiuolo’s painting
of the same subject (c. 1470, Staatliche Museen, Berlin; fig. xx) seems to borrow its marble
revetment from the portico antae of the Pantheon, still intact at this date (see Chapter 9 and fig.
demands further deliberation. It is remarkable that these artists make so little effort to depict identifiable marbles and that, rather, their rainbow eddies arouse the age-old perception of marble as a swirling liquid or vapor that is on the point of solidifying. In fact, the floor below the Virgin’s feet often resembles some chemical infusion sooner than it does glossy paving, and the artists seem intent not on representing marbles so much as marbleness (fig. 8.43). Once again the medium is released from the constraints of the material.

Given marble’s literary heritage, popular perceptions and longstanding geological beliefs, as well as the enormous implications of the sacred event depicted, the suspicion must arise that the marbles represented a metaphor for the Incarnation, either as images of generation or as the acheiropoietic venues for miraculous images. A purely white stone lent itself to virginal metaphor and fourteenth-century Byzantine poetry, for example, dwells on the purity of reliefs of the Nativity that were fashioned from them. By extension, veined, streaked or nebulous stones offered a gamut of generative associations from the “living rock” to “marbles as meadows,” not to mention Christ the rock in all His

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91 E.g. Fra Angelico and assistants, Annunciation, c. 1440, Monastery of St. John, Montecarlo (presently in the cathedral of San Giovanni Valdarno). The examples are innumerable. Didi-Huberman regards such material characterisations (i.e. stone that seems cloud or fire) as evoking the “materials of ‘dissimilitude’” that Dionysius [the Areopagite] had electively proposed to represent the celestial mysteries” and as fluctuating between the varying tropological meanings of the figure: Didi-Huberman, Fra Angelico: 155.

Scriptural guises. In one example, a late Quattrocento illumination (fig. 8.44), a serrated border leaves no doubt that the marbled floor is bedrock, though not any *terra firma* but a living stone that flows between the Virgin and Archangel like the River Jordan. The mottling of the stone might also suggest an internal germination, and once the image was incubated, it could be revealed by splitting open the block, as in book-matching. Indeed, one exegete, the Dominican friar Franciscus De Retza (1343-1427), used precisely this metaphor when he revived Albertus Magnus’ story of the king’s head found in a book-matched slabs in Venice (Appendix 7.1) to defend the doctrine of the Immaculate Conception (1487/90; fig. 8.45).

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94 Milan, Biblioteca Nazionale Braidense, Messale Cartusiano Ms.AG.XII.1, fol. 1r. It was commissioned at some point between 1485 and 1498: Cristina Quattrini, “Il ‘Primo Maestro del Messale Arcimboldi’ e altri miniatori lombardi dell’ultimo Quattrocento,” *Arte Cristiana* 83, no. 770 (1995): 345 with previous bibliography.

Appendix 8

1) (Pedestal?) inscription of the Stone of Unction, Pantokrator Church (after 1180)

Wonder at these strange things as you see them, stranger: our lord, the
emperor Manuel re-enacts the resolve of the Disciple as he bears on his shoulders that
stone upon which the Lord’s body was placed and prepared for burial in a shroud.
He lifts it up announcing in advance his own burial, that in death he may be buried
together with the Crucified One and may arise together with our buried Lord. The
Empress Maria, his wife, who, deprived of her resplendent Lord, is still our holy
augusta [though named] Xene, together
with her son, the ruler Alexius, like that
other Maria who secretly brought
unguents, once again mixes unguents with
her tears, not in seeking him who will roll
the stone away from the door to the life-
giving tomb, but that she may roll that life-
giving stone to the tomb wherein is buried
the body of the Lord’s anointed, the emperor
Manuel, renamed Matthew – two divine
names by which the emperor defeats two
cinds of adversaries: for [the name] Manuel
inflicts defeat upon alien nations, while that
of Matthew acts likewise on spiritual
[enemies] by the aspect of his angelic habit.
Now, the Empress sheds tears like
unguents and wears herself out before the
stone, standing there that she, too, may
utter those words and raise a second
Lazarus. But if he hears her not as he
awaits the Last Day, she might knock on
the door of the tomb with that stone by
means of which aforetime sepulchral stones
were opened, rocks rent asunder and the
gates of Hell, and she might steal the
beloved corpse and lay down her heart as a
winding-sheet and prepare unguents –
tears in the place of aloes, and unguents in
the place of myrrh – and in mournful
fashion utter this lament: ‘Break, o my
heart, and receive my master with my
much-sighing bosom – him whom I did love
in my heart. Now that he has died and
hidden himself in a stone, I too have turned

96 Meletios, Μελετίου γεωγραφία παλαιά και νέα (Venice: 1728): 426. Text and translation (here
slightly modified) from Mango, “Notes,” 372-73. Meletios says the verses “were inscribed on the
stone”, but it beggars belief that any artisan would have been allowed to do this.
to stone with sorrow and I am deadened as much as the stone tomb, for my spirit has been rent and my breath has flown away.
Chapter 9

Renaissance Chapels: Antiquarianism, Gems and Magic

Venetian Chapels

If colored marbles abound in Quattrocento painting the same cannot be said for actual buildings. Fine stones were used here and there for portals, window frames, altars, tabernacles and other furnishings but only a piffling number of interiors, all religious, were actually revetted. The examples are scattered but the greatest concentration and the most impressive examples, S. Maria dei Miracoli and the Bernabò Chapel, are in Venice.

In strong contrast to the bichromatic revetment favored in Florence, which privileged geometrical intarsie, Venetian use of marble was always distinguished by a love for pattern and palette. The procurators for the construction of S. Maria dei Miracoli, for example, did not care whether the marbles were Greek or Italian so long as they were veined. In this respect, the architectural use of marble in Venice has a distinctly Byzantine flavor and the motivations are neither slow to find nor hard to fathom.

Venice had Byzantium in her blood, first as a client state, then trading partner, then conqueror and finally as successor. With Constantinople’s fall in 1453, Venice filled the vacuum politically and culturally. She consolidated her imperial image in 1462, by which date Venetian expansion onto *terra firma* was complete, when she discarded the medieval title of *commune* in favor of the imperial title of *dominium*.1 Meanwhile refugee Greek scholars flocked to Venice,

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1 Treviso (1339), Vicenza (1404), Padua and Verona (1405), Brescia, Udine and Friuli (1426).
Cardinal Bessarion transferred his precious library of Byzantine manuscripts there, and the Aldine press published the first texts in Greek. Notably, the first printed edition of Theophrastus’ *On Stones* appeared, bound in with Aristotle, in 1497. In the realm of religious art, “the phenomenal luxury of the East was associated with extraordinary sanctity,” and from the 1470s not only did Venetian altarpieces stage sacred history in the setting of S. Marco but Giovanni Bellini began divulging a genre of Madonna derived from Constantinopole’s most revered icon of the Virgin, the *Hodegetria*. And between the 1490s and 1530s there was a wave of neo-Byzantine architecture in which spoliated marbles were conspicuous components. Whoever built the gateway to Venice’s Arsenal (1457/68) chose to adorn it with spoliated proconnesian columns and Byzantine capitals. In fact, La Serenissima continued to scour the eastern Mediterranean for colored marbles well into the seventeenth century, and the ruins of the Istrian coast, Aegean Isles, Crete, Epirus and the Peloponnese littoral all became her quarry. Venice began to see herself as Old Rome, New Rome and Jerusalem all at the same time, and all cities rich in stone lore.

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The baton is also passed in the paintings of Carpaccio, Bellini, Cima da Conegliano and others, who all imagine eastern cities clad head-to-toe in precious stones (fig. 10.4). Likewise, Bellini’s and Cima’s altarpieces fuse past and present, mixing renaissance illusionism with byzantine architecture. Cima’s acute knowledge of masonry construction shows that he had studied both S. Marco and rising edifices like the Miracoli, blending them all into one great continuum. Marble revetment is a staple of Cima’s pictorial imagery and, for

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8 In this context, Goffen cites the altarpieces in S. Giobbe (c. 1480), the Frari (1488) and S. Zaccaria (1505): Goffen, “Half-Length Madonnas,” 488.

9 E.g. marble vault pendentives in the Virgin and Child with Sts Sebastian, John the Baptist, Matry Magdalen and Roche, and kneeling confraternity members (c. 1486-8); alabaster spandrels in the Virgin and Child with Sts James and Jerome (1489); interior with dome based on S. Marco in the Virgin and Child with Sts John the Baptist, Nicholas, Catherine, Apollonia, Francis and Peter (1492-3); mosaic pendentives but marbled drum in the St. John the Baptist with Sts Peter, Mark, Jerome and Paul (c. 1493-5); mosaiced pendentives and dome in the Virgin and Child with Sts Peter, Romuald, Benedict and Paul (c. 1495-7); wall revetment based on the Miracoli in the Virgin and Child with Sts Michael and Andrew (1490s): Peter Humfrey, Cima da Conegliano (Cambridge: Cambridge University Press, 1983): 120-21 (cat. no. 81), 63-64 (cat. no. 60), 94-96 (cat. no. 37), 60-61 (cat. no. 57), 80-82 (cat. no. 12), 38-9 (cat. no. 19) and pls. 17, 31, 37, 52, 61. In his townscape marble is deployed on a very
example, he stages his *Virgin and child with Sts John the Baptist, Cosmas, Damian, Apollonia, Catherine and John the Evangelist* (fig. 9.1) in the marble and mosaic atrium of San Marco.\(^{10}\) Likewise the Madonna, saints and donors in his *Pala di Oderzo* (fig. 9.2) stand within a sequence of saucer domes that is a miniaturized version of the Byzantine nave-typology long adopted in Venice, Padua and their environs.\(^{11}\) This particular altarpiece even vaunts a marble pendentive, a technical innovation borrowed from the choir of the Miracoli. Cima’s painting essentially fuses the compositional and illusionistic prototypes of Bellini with the archaeological acumen of Mantegna. Mantegna got his wife (Nicosia Bellini) and his pigments from Venice, and no doubt his marble literacy as well.\(^{12}\)

The degree to which marble splendor became associated with Venice is clear from guidebooks, but it even emanates from the work of painters north of the Alps.\(^{13}\) In Dürer’s *Madonna and Child* (c. 1496/1506; fig. 9.3), painted after a

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\(^{10}\) Galleria Nazionale, Parma: Humfrey, *Cima*: cat. no. 118.

\(^{11}\) The five-cupola scheme was widespread throughout the Balkans and Byzantine east and was repeated in a conspicuous number of Venetian churches built in the last decades of the fifteenth century, from S. Giovanni Crisostomo and Santa Maria Formosa right up to San Salvador.


Venetian sojourn in 1494-95 or 1505, the Christchild is Germanic enough and we
glimpse a typically northern landscape through the window. However, not
only is the Madonna of the _Hodegetria_ type divulgated by Bellini but the room
around her is shot with marble veining. Clearly, for Dürer “marbleness” was
just as much a defining characteristic of the artistic culture he was imitating as
were its neo-Byzantine Madonnas.

In religious architecture the longest shadow was cast by S. Marco, the
most marbled building in the west and more Byzantine than Byzantium. Visiting
Venice around 1480, Felice Fabbri found the sight of the basilica “so surprising
that, according to common opinion, it seems to have been made by angels rather
than men.” When Filarete, who knew Constantinople only secondhand through
his mentor Filelfo, advocated the marbled interior of Hagia Sophia as a model for
princely patronage the real model is S. Marco: “if you have any way to procure
such beautiful things, they would render great honor to the building because
they would ornament it greatly. Just as the Venetians have done in their church,
as connoisseurs know well” (appendix 7.3).

Filarete’s allegiance to Greekness also shines through the philohellenic
language of his _Trattato_ in open contrast to the Latinity of Alberti’s own

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15 Bellini’s _Madonna Greca_ (1476/77; Brera, Milan), _Contarini Madonna_ (c. 1480; Accademia, Venice) and _Madonna degli Alberetti_ (1487; Accademia, Venice) are the closest prototypes for Dürer’s painting. The most ironic instance of contending with the Byzantine cultural patrimony is Gentile Bellini’s consciously archaising miniature of the Madonna (1479/80) commissioned by Bayezit II to replace a Byzantine icon after a seventeen year war with Venice: Julian Raby, “El Gran Turco: Mehmed the Conqueror as a Patron of the Arts of Christendom” (D. Phil., University of Oxford, 1980), 100ff.

architectural writings. But the debt to Byzantine ekphrasis is more obvious in Francesco Colonna’s Greek-titled romance, the *Hypnerotomachia Poliphili* (1499), which even cites the authority of the itinerant archaeologist Ciriaco d’Ancona in its preface. The *Hypnerotomachia* is riddled with the most detailed descriptions of fantastic edifices clad in the richest marbles, and one line of its alliterative Venetian-cum-Byzantine rhapsody is more expressive of the Venetian fascination with exotic and veined marbles than pages of visual analysis. As the author himself says in the preface, “in order to understand it one needs Greek and Latin no less than Tuscan and the vernacular”:

cum decente partario dil coloramento degli marmori et vaga discrimina
tione, cum participamento allo obiecto gratioso, di porphyrite, di ophite, numidice, alabstritie, pyropecile, lacedaemonice, et candido di marmore varicosamente undulate et andracine digenerate cum bianchissime macule, altre di multiplice coloramento confusamente commixto.

Moreover, 1453 did not signify the end of eyewitness contact with Constantinople itself. Commerce continued under the Ottomans, and artists like Costanzo da Ferrara and Gentile Bellini briefly worked there. Nor were humanists detered from venturing eastwards to tour the antiquities or seek out Greek manuscripts, amongst them Guarino Veronese, Giovanni Aurispa, Filelfo,

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Ciriaco d’Ancona, Cristoforo Buondelmonti, Benedetto Dei, Niccolò and Bernardo Michelozzi, Bonsignore Bonsignori, and Giovanni Lascaris. \(^{20}\) Hagia Sophia continued to fill the western imagination through travelers’ reports, western chronicles and circulating drawings. \(^{21}\) Ciriaco d’Ancona’s drawings of Hagia Sophia, periegetically organized like a Byzantine ekphrasis and extolling the “great temple notable for 104 porphyry, serpentine and marble columns of various noble and remarkable stones,” made their way into the architectural consciousness through the copies of Giuliano da Sangallo (fig. 9.4). \(^{22}\) Those lucky enough to enter this church turned mosque were still exhilarated by its adornments and some would even paraphrase Procopius: “the inside of the walls of the church are encrusted with elegant marble of several kinds. All its materials are the most valuable productions of nature, so that viewing it employs the thoughts of the spectator with delight and admiration.” \(^{23}\)

Venice was also within easy reach of some of the best Byzantine marbled interiors to survive, at Ravenna. When Ambrogio Traversari, the Florentine friar, humanist and inspirer of Ghiberti’s Porta del Paradiso, visited Ravenna in 1433,


\(^{23}\) Petrus Gyllius, De Constantinopoleos topographia libri iv (Leyden: A. Elzevir, 1632): 100: “Parietum interior pars crustis marmoreis vestita excellentibus, & variis fulgurat, & permiscet cum summas naturae vires, tum mentes spectantium.” The publication is posthumous and the original journal was written in 1544-47.
he pointed out the various columns, mosaics and porphyry ornaments as proof that one could not find more beautiful basilicas in Rome.24 When Antonio da Sangallo the Younger saw San Vitale eighty years later, he too was struck by “the beautiful fantasy” of “stones sawn and opened like books that make beautiful forms accordingly.”25 Likewise, the Venetian humanists who investigated Ravenna and Aquileia were struck by the “varium marmorum ornamenta” and “marmorea pavimenta et emblemata vermiculata.”26

All these ornaments left their mark on Venetian painting, but also on a batch of new chapels, in which painting, architecture and sculpture enter into dialogue.27 The earliest of the chapels is the Dogally-commissioned Cappella

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26 Desiderio Spreti, de amplitudine, de vastatione et instauratione urbis Ravennae, Venice 1489, and Giovanni Candido, Commentariorum Aquileiensium libri octo, Venice 1521, Book I; cited in Concina, History: 117, 18.

Foscari (1431, also called the Cappella dei Mascoli) in S. Marco (fig. 9.5). This was the first chapel to be revetted in the west since late antiquity. Its walls are sheathed in *cipollino rosso* (Iasian marble) and *greco fiorito*, all spolia, right up to the level of its vault mosaics. On the altar wall, the slabs are laid symmetrically so that the veining suggests a halo around the radiant altarpiece and this effect seems to have inspired Pisanello, who spent his youth in Verona and whose earliest known commissions were in Venice. It was here that he painted his *Virgin and Child with Saints George and Anthony Abbot*, (c. 1450; fig. 9.6), where the Madonna’s mandorla materializes out of concentric, serrated ripples of yellow lines bluing at their extremities.

A series of other Venetian chapels slowly followed suite, including the Cappella Gussoni in S. Lio (c. 1485), the Bernabò Chapel in S. Giovanni Crisostomo (c. 1499-1502), the Cappella Giustiniani in S. Francesco della Vigna (c. 1500), and the Cappella Emiliana in S. Michele in Isola (1527-30). One must also

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count a number of monumental altars like the Garzadori altar in S. Corona, Vicenza, from the beginning of the century and the Morosini altar in S. Francesco della Vigna (1520s). The jasper and porphyry inlays and columns of trasparent alabaster on the Altar of the Sacrament that Lorenzo Bregno inserted into the apse of S. Marco in 1518 also demonstrate a delight in strident marble effects that was meant to evoke the opulence of Solomon’s Holy of Holies (fig. 9.7). Bregno’s chapel, like the earlier Mascoli chapel, was equally inspired by the need to measure up to the building that housed it, S. Marco.

Both S. Marco and the Miracoli in turn underly the design of the outstanding Bernabò Chapel in S. Giovanni Crisostomo, Venice (figs. 9.8-9), designed and built by Mauro Codussi and Pietro Lombardo’s son, Tullio, in c. 1499-1502. This was a neo-byzantine chapel in a neo-byzantine church, indeed the only church in the West dedicated to a Byzantine bishop saint after the

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Abbeville Press, 1982): pls. 51-52; Anne Markham Schulz et al., La cappella Badoer-Giustinian in San Francesco della Vigna a Venezia (Florence: Centro Di, 2003).


33 For the church: Bertrand Jestaz, “La reconstruction de l’église San Giovanni Crisostomo a Venise (1497-1506),” Archivio Veneto 163 (2004): 5-52 with bibliography. For the chapel: Charles Davis, “La cappella Bernabò in San Giovanni Crisostomo: storia e immagine,” in Tullio Lombardo, scultore e architetto nella Venezia del rinascimento, ed. Matteo Ceriana (Verona: Cierre, 2007), 217-78 with bibliography. Commissioned around 1499 by the Scuola della Misericordia to satisfy the will of a silk merchant, Jacopo Bernabò, who had died more than fifty years earlier, its full name is the Cappella Bernabò da Catenariis de Montepulciano.
eleventh century. Not only is this chapel marbled from top to bottom, but Lombardo’s altarpiece is a massive two-piece relief of the utmost delicacy, in white marble. Only the miniature rotae studding the frame, and the pediment of the building in the relief’s background, are slender inserts of porphyry. These subtle touches of color are typical of the sculptor’s output but also copy the architectural usage of Mauro Codussi on façades like that of S. Michele in Isola (1468-77, see below; fig. 9.23). Indeed, the pediment in Lombardo’s relief repeats the full-sized and colored pediment on the main portal to the church itself, also by Codussi. The chapel’s lateral walls are clad with sheets of pavonazzetto, obviously spolia, and such love went into ensuring the panels appear book-matched that they were confected from irregular pieces patched together with invisible joins (fig. 9.9). Above Lombardo’s relief the ascended Virgin is represented by an eleventh-century Byzantine relief inserted into a lunette of streaky pavonazzetto that obviously doubles for heavenly cloud. Venetian writers were well aware of the meteorological potential of marbles hypnerotomahia quote?, but in this case the original inspiration was probably the cladding of the Tomb of St. Isidore (1343-54), in the eponymous chapel in S. Marco, where carved angels stand on a ground of “alabastro nuvoloso” (fig. 9.10). Moreover, Tullio Lombardo had used panels of the same, streaked pavonazzetto to depict

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34 The church was probably rebuilt on the footprint of the pre-existing medieval foundations, but this neo-byzantine quincunx plan may also reflect post-1453 philhellenic nostalgia: Morresi, “Venezia,” 229-30.

35 E.g. the Winter Winds on the altar of Priapus, in the Hypnerotomachia, for which “this consummate artist had carefully chosen a marble that, beside its whiteness, was veined with black (in the appropriate places) such as to depict the dark, lightless and cloudy sky with its falling hail” (“el praestante artifice, electo solertemente el marmoro havea, che oltra la candidecia sua era venato (al requisito loco) de negro, ad exprimere el tenebroso aere illumino, & nebuloso cum cadente grandine”): Pozzi and Ciapponi, eds., Hypnerotomachia, 188. Cf. the “cloudy alabaster” on the 1364 tomb of Dante’s son, Treviso (see Chapter 3).
cloud-scudded skies in his reliefs on the *albergo* façade of the Scuola Grande di S. Marco (1489-95; fig. 9.11), and (together with his brother Antonio Lombardo) those in the Cappella di S. Antonio, in the Santo of Padua (1500-1501; fig. 9.12).36

The same marble, appropriately, clads the scarsella of the Miracoli (figs. 8.40-41; see Chapter 8).

**Chapels outside Venice**

Outside Venice, there are very few marbled chapels to pick from. The Chapel of the Magi (c. 1444) in the Palazzo Medici in Florence, and the highly influential Cardinal of Portugal Chapel designed by Anotnio Manetti in S. Miniato al Monte, Florence (1460-68) have intricate and archaising pavements but only the Chapel of Sigismondo Malatesta in S. Francesco, Rimini (1447-48) and the Cappella del Perdono in the Ducal Palace, Urbino (c. 1475/1494) almost certainly designed by Francesco di Giorgio Martini, actually have revetted walls.37 On the other hand, the Cappella del Perdono (fig. 9.13), almost certainly by Francesco di Giorgio, seems to be an adaptation of an antique cella (like those in the Temple of Venus and Rome in Rome or the so-called Temple of Diana in Nimes) to the cult of the Virgin.38

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38 The seminal study remains the rare pamphlet Pasquale Rotondi, *Manifestazioni di Paganesimo umanistico nella civiltà urbinate del Rinascimento. Il tempio delle Muse e la cappella del Perdono nel Palazzo ducale di Urbino* (Urbino: 1948). An unconvincing attempt to apply Ficino’s neo-platonism


to reproduce a Paleo-Christian mausoleum and prototypes like S. Costanza, the Mausoleum of Galla Placidia and the ninth-century Chapel of S. Zeno in S. Prassede, Rome, all conserved marble revetment at this date. Some cues are more obvious: the cardinal’s porphyry sarcophagus resembles the porphyry basin that still stood in front of the Pantheon; the intarsie on the altar paliotto mimic those in the Romanesque nave of S. Miniato itself. Moreover, some attempt was made to imitate the mosaic and marble schemes of paleo-Christian chapels and mausolea. The vault (fig. 9.17) is covered with an irridescent skin of glazed tiles and Alessio Baldovinetti tried to capture the effects of mosaic in the spandrel and lunette frescoes by applying gold leaf and varnishes which have since disappeared. The floor is an archaeologically correct copy of Cosmati paving and its quincunx mirrors the tondi of the Evangelists and Holy Spirit in the vault (fig. 9.16). Since this is a funeral chapel, the threshold between life and union with the Creator, the scheme from quite probably aspires to the sort of cosmic interpretation of such patterning that had actually been engraved around the quincunx-in-a-quincunx under the crossing of Westminster Abbey (1267-68; fig. 9.18): “If the reader prudently considers all that is set down he will find here the end of the primum mobile” and, around the central rota, “The sphere shows the archetype, this globe shows the macrocosm.” The wall revetment, on the

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other hand, serves either as all’antica cladding or subtly extends the illusions of the frescoes into the chapel, as, for example, the wall of the Virgin’s *Hortus Conclusus* that materializes into real revetment behind the episcopal throne (fig. 9.15).\(^4\)

**Marble façades: Alberti and others**

Although architectural marbles remained scarce for most of the Quattrocento, it is paradoxically the case that about as many chapels and churches received revetted exteriors as did interiors. In most cases, the new façades reflected the idioms of the antique architecture indigenous to the region, where the category “antique” could include paleo-Christian, byzantine and western medieval buildings. The underlying reason for this latitude was both a vision of history that was not segregated by periodisation and the necessity of accommodating classical language to a foreign building typology, the church, via the venerable examples of early Christianity.

The earliest of these new marble façades were all designed by Leon Battista Alberti. While Alberti applied his vast knowledge of classical architecture and literature to the task of reinventing the church façade, the results are also influenced by the colored prototypes of duecento and trecento

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architecture that he had seen during a youth spent between Genoa, Padua and Bologna. He also knew Venice well, and S. Marco right down to its air vents.\textsuperscript{45}

The first façade that Alberti designed was for S. Francesco (the Tempio Malatestiano), in Rimini and begun around 1453.\textsuperscript{46} Despite the innumerable studies on the building and its ubiquitous mention, hardly a word has been spared to acknowledge that the façade is multicolored (figs. 9.19-20). In part, scholars have tended to look at this façade through the lens of Alberti’s own words, remembering that he would be “easily persuaded that purity and simplicity of color, as life, is most pleasing to the supreme Gods.”\textsuperscript{47} Indeed, the façade is predominantly clad in white, Istrian stone and Sigismondo Malatesta’s court poet Basinio Basini da Parma extolled it as a “marvellous Temple of Parian marble.”\textsuperscript{48} But the arches are lined with grey limestone; the inscriptions on the side of the church are in the same material (to imitate bronze?); the stylobate is trimmed with red Veronese marble; the facade studded with porphyry roundels; and the entire central bay is packed with porphyries and serpentines. The limestone was local,\textsuperscript{49} Veronese and Istrian stone combinations were typical of


\textsuperscript{47}De Re A. 7.10 (fol. 126): “mihi quidem perfacile persuadebitur coloris atque vitae puritatem et simplicitatem superis optimis gratissimam esse”; paraphrased by Palladio, Quattro Libri, IV, 2: “tra tutti i colori niuno si convenga più à i tempii, della bianchezza: conciosiache la purità del colore, e della vita sia, sommamente grata à Dio.”


Venice, from where the masons who executed the façade themselves came,\(^\text{50}\) while the porphyry and serpentine were despoiled from S. Apollinare in Classe, Ravenna.\(^\text{51}\)

As is well known, the local model classical model for the façade was the all-white Arch of Augustus, from which Alberti borrowed the applied order with its broken architrave (“muro triumphato”), clipei, and stylobate. However, as only Wittkower noted, the façade’s tripartite system was also to some extent indebted to the Arch of Constantine in Rome.\(^\text{52}\) Alberti may have been inspired by its color as well because on Constantine’s arch the columns, pilasters, frieze, attic plinths, captives and the fields around the tondi were all colored.\(^\text{53}\) The present porphyry inlay on the Arch of Constantine is twentieth-century restoration but it had survived intact to Alberti’s day, as is clear in Benedetto Bonfigli’s contemporary fresco of the *Miracle of San Ludovico* (1454-61) in the chapel of the Palazzo dei Priori, Perugia.\(^\text{54}\)

Porphyry roundels, however, appear on no antique façade and, as far as one can tell from intact interiors like the Pantheon and Hagia Sophia, vertical

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\(^{50}\) Smith, “Piero’s Painted Architecture,” 237.

\(^{51}\) See above.


\(^{53}\) Patrizio Pensabene and Clementina Panella, *Arco di Costantino tra archeologia e archeometria* (Rome: “L’Erma” di Bretschneider, 1999): 40, 48, 63: *giallo antico* pilasters and columns; porphyry panels framing the carved roundels; *pavonazzetto* Dacians on *cipollino* bases. The body of the arch is made of Proconnesian and Carrara marble. The frieze is missing but was presumably porphyry or serpentine.

rotae were never framed with deep mouldings but stayed flush with still more colored revetment. Alberti’s only possible point of inspiration must have been the medallions on the side façades of S. Marco (figs. 7.12-3). Even on as Romanizing a façade as the Tempio, begun the year that Constantinople fell, the Byzantine tradition transmitted to Venice and Ravenna made itself felt. Malatesta’s investment in this tradition is pronounced by the dedicatory inscriptions in Greek language and lettering, and the fact that he even stole the body of George Gemistos Pletho, the last scholar of the last Byzantine court at Mystra, to fill one of the neo-Byzantine sarcophagi on the church’s lateral arcade. Perhaps in the sudden vacuum left by the demise of Byzantium, Sigismondo saw himself as a new Constantine.

The central bay of the façade is a complete innovation and, although it was admired by contemporary ekphrasists, has again earned no comment in modern scholarship (fig. 9.20). The portal has a porphyry and serpentine frieze, but the entire lunette above is divided into a tartan grid with alternating fields of serpentine and porphyry, within which alternate ovals and diamonds with

55 Ricci and Smith also perceive a similarity between the doorway to the Cella delle Reliquie within the church and the entrance to the Baptistry at S. Marco: Ricci, Il Tempio Malatestiano: 411; Smith, “Piero’s Painted Architecture,” 237-38 and pls. 17-18.


57 Porcellio Pandoni cited in Piero Scapecchi, “Victoris Imago: Problemi relativi al Tempio Malatestiano,” Arte cristiana 74, no. 714 (1986): 162: “Aerea per geminas consurgunt limina valvas / quas vestit parius, porphyreusque lapis.” This revetment is not illustrated in the view of the façade (c. 1457/68) in Basinoio’s Hesperis (Oxford, Bodleian Library, MS Canon class. lat. 81, fol. 137r), but the building is shown in construction and the superstructure is also missing: Otto Pächt, “Giovanni da Fano’s Illustrations for Basinoio’s Epos Hesperis, with Two Appendices by A. Campana,” Studi romagnoli 2 (1951): figs. 5-6.
inscribed rotae. The framing is also in white statuary marble rather than Istrian stone. This lunette represents the first reconstruction of antique revetment since the sixth century, especially as regards its alternation or “weaving” of diamond and oblong panels. This revetment ennobled the church entrance for porphyry and serpentine were like man and wife in the aristocracy of colored marbles, and frequently used in combination on antique floors and revetment. Without this revetment the portal would also have been hopelessly underscaled. However, the question remains where Alberti, a man so observant of classical remains and so erudite in his borrowings, could have found a precedent for this idea. He would have known the late-antique revetments in several Roman buildings like SS. Cosmas and Damian or the Lateran Baptistery (see Chapters 2, 3), but these were all internal. About the time Alberti’s façade was rising, Piero della Francesca imagined an early Christian basilica façade in his the Proofing of the True Cross at Arezzo, clad with implausibly large sheets of marble and studded with rotae, but again no early Christian façade of the sort actually existed (fig. 9.21). All in all, it seems more likely that the polychrome skin, like the idea of recessing the central bay of the façade, was borrowed from the pronaos of the Pantheon, which, until at least the 1520s, still retained its panneling in porphyry and other granites (fig. 10.39). In fact, when we return to this model we see that


59 The Codex Coner records panels in the Pantheon portico, between the pilasters in antis, with the captions “porphidus” and “granitus et relique marmorum” (Codex Coner, f. 51; Thomas Ashby, “Sixteenth-Century Drawings of Roman Buildings Attributed to Andreas Coner,” Papers of the British School at Rome 2 (1904): no. 62). A sketch by Antonio da Sangallo (Uffizi 1157 A r), also labeled “garnito [sic]... porfido, porfido”: Christoph L. Frommel and Nicholas Adams, eds., Churches, Villas, the Pantheon, Tombs, and Ancient Inscriptions. The Architectural Drawings of Antonio
the equally large lunette over the bronze portal of the Pantheon is surprisingly blank and now covered with a layer of modern plaster: it may be that in Alberti’s day some revetment remained, or it may simply be that Alberti imagined it there. If so, the antique prototype was again fused with the example of the side façades of S. Marco. Only there does one find oval insets in porphyry set vertically and horizontally, just like the Tempio Malatestiano (fig. 7.12).

The façade of the Tempio Malatestiano had almost immediate influence on two façades added to pre-existing buildings. The first is the façade of the Oratory of San Bernardino in Perugia (fig. 9.22) designed by the Florentine sculptor Agostino di Duccio in 1457-61, directly after he had completed numerous reliefs within the Tempio Malatestiano. The Perugia façade marries triumphal arch with Romanesque trusseau, and is highly polychromed with both local limestones and surface paint. It is not only the classical moldings, triumphal arch scheme and pedimental sculpture that announce its studied allegiance to antiquity but the all’antica lettering of the inscription, which records not the Christian dedication but the inauguration and the city’s Roman name, copied, even in its letter forms, from the nearby Porta di Augusto: AVGVSTA PERSVIA MCCCCLXI.


\textsuperscript{61} The inscription is copied from the Augustan one added to the Porta Etrusca.
Chapter 9: Renaissance Chapels

The second façade is that added by Mauro Codussi, in 1468-77, to S. Michele in Isola, in the Venetian lagoon (fig. 9.23). Codussi knew Alberti’s façade firsthand as he had worked for the Camaldolese at S. Apollinare in Classe, near Ravenna, before and during construction at S. Michele. S. Michele’s façade is again clad mostly in Istrian stone, initiating a Venetian trend, and draughted with shallow rustication. However, the attic is faced with proconnesian sheets, and this and the pediments are all trimmed with grey marble borders. Presumably Codussi drew this detail from Alberti’s Tempio for he also borrowed the trilobed superstructure (incomplete on the Rimini façade, but represented on Matteo de’ Pasti’s medal), the all’antica epigraphy in the friezes, the “muro triumphato,” and the porphyry rotae that orbit the oculus and all together compose a quincunx. Codussi’s signature, the colored tympanum over the portal was instead inspired by Venetian example, namely the exquisite porphyry tympanum on the door into the Madonna dell’Orto (before 1444; fig. 9.24), from which he also quoted the scalloped coving he would use to cap S. Michele’s façade. The most telling detail of all, however, is the porphyry oval in the tympanum that had previously been used only in the portal lunette of the Tempio Malatestiano.

The intricate intarsie of Alberti’s next façade after the Tempio Malatestiano, on Santa Maria Novella (1458-70), Florence, required inordinate amounts of marble and extraordinary craftsmanship (fig. 9.25). The result was the first marbled church façade in Florence since S. Miniato (1018/1207; 9.26) and

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the Trecento cladding on the flanks of the Duomo. The patron, Giovanni Rucellai, had visited Rome for the Holy Year of 1450 and filled his journal with descriptions of the marble incrustations of early Christian churches. But it was the fourteenth-century skin of Santa Maria Novella’s lower façade, with its blind arcades borrowed from the Florentine Baptistery, an impeccable prototype because it was thought to be an Augustan temple of Mars, which set the pattern for Alberti. The Baptistery continued as an architectural icon of Florentine origins and its marble facing was restored through the Quattrocento. Not surprisingly, Alberti quoted the Batistery cladding on the lower storey, and the geometrical intarsie of S. Miniato on the upper.

Alberti was unable to execute marble façades for his two other churches, S. Sebastiano and S. Andrea, both in Mantua. At S. Sebastiano, Ludovico Gonzaga’s budget did not permit the façade to be built in imported stone, and as

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64 Francesco Gurrieri, Luciano Berti, and Claudio Leonardi, La Basilica di San Miniato al Monte a Firenze (Florence: Cassa di Risparmio di Firenze, 1988); Marco Dezzi Bardeschi, La facciata di Santa Maria Novella a Firenze (Pisa: Nistri-Lischi, 1970): esp. 18-19. The Duomo façade was begun by Arnolfo di Cambio in 1294 but left incomplete at his death in 1302; it was resumed in 1357 by Francesco Talenti but again left incomplete: Martin Weinberger, “The First Facade of the Cathedral of Florence,” *Journal of the Warburg and Courtauld Institutes* 4, no. 1/2 (1940/41): 72-74.


it is the whole church took almost forty years to complete (1460-99). Nonetheless, it is difficult to understand the blank fields bracketed by the paired pilasters and heavy cornice unless Alberti intended some surface decoration for the façade in lieu of revetment (fig. 9.27). Indeed, recent cleaning has revealed a square-and-octagon pattern, of red and yellow panels respectively, which recalls the façade of the later Palazzo Schifanoia in Ferrara (figs. 9.28, 10.17-18; see Chapter 10). While this decorated intonaco must have been added by Luca Fancelli, who supervised construction and probably built the façade, other faux-revetments once concealed the brick, medieval carcass behind the arcades that Alberti added to the flanks of the Tempio Malatestiano. Moreover, the façade of Sant’Andrea, begun in the year of Alberti’s death, 1472, and completed by Luca Fancelli in 1493, retained its very elaborate polychromy until the puritanical “restoration” of 1822-1835 (figs. 9.29-30). The capitals and bases of the giant

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68 Böckmann argues that the four pilaster scheme dates from the early sixteenth century and that the corner pilasters were originally projections to provide rebates for a cladding that was never installed: Barbara Böckmann, _Zahl, Mass und Massbeziehung in Leon Battista Albertis Kirche San Sebastiano zu Mantua_, Hildesheim-Zurich-New York 2004, 152-171.

69 Roberto Soggia and Noris Zuccoli, “Finiture di facciata nei costrutti albertiani. San Sebastiano e Sant’Andrea a Mantova,” in _Leon Battista Alberti_ (Ivrea: Olivetti/Electa, 1994), 392-401. The authors’ reconstruction may be incorrect in one respect: it seems anachronistic that the portico apertures cut into the patterning in the Robert Venturi-like manner shown.


order were once in stucco mixed with brick dust (imitating Veronese marble), as were the pilaster frames and the podium of steps. The pilasters of the dwarf order, the portals, and the giant order pedestals were in grey-green stone (noriglio). Coffering, spandrels and friezes were all painted, the latter as faux-intarsia, and liberally gilded. Finally the niches and remaining wall surfaces were “quilted” with jewel-studded, faux-revetments (figs. 9.31). In many respects, the completed façade was the painted equivalent of Alberti’s earlier S. Maria Novella, though employing a broader palette.

A number of later façades were entirely clad in colored marbles, but none of them follows Alberti and those in Venice are indebted to the example of S. Marco. The most celebrated is Pietro Lombardo’s S. Maria dei Miracoli (1481 - c. 1487), a building frequently compared to a huge reliquary thanks to its scintillating marbling and barrel-roof like a casket lid (see Chapter 8). The influence of S. Marco is evident in several ways: the desire to sheathe the entire exterior with marbles; its bookmatching and subdivision by contrasting marble bands drawn specifically from the Treasury wall; and the idea of a barrel-vaulted interior with revetted walls terminating (towards the controfacciata) in a façade with an oculus (figs. 7.8, 9.32-3). The façade of the Scuola Grande di S. Marco (1489-95) could hardly but draw on the imagery of S. Marco’s facade given the saintly patronage of the confraternity it housed. Indeed the marbles came from


The vast majority of panels on the Treasury wall are bookmatched, and these quartered panels are encircled by mostly grey bands. The same pattern is used on the Miracoli, except that the quartered panels are not but-jointed but divided by Veronese marble strips.
the same source, the procurators of S. Marco. Mauro Codussi, Pietro and Tullio Lombardo, and perhaps the Bellini all had a hand in the design of the façade, which blends palace and church, architecture and painting. The influence of the exterior polychromy of S. Marco survived, unexpectedly, until the late sixteenth century when Simone Sorella added a “Palladian” façade to Palladio’s own San Giorgio Maggiore, whose giant order of engaged columns were intended to have been monoliths in a very un-Palladian red limestone.

Outside Venice, we must count two works by Giovanni Antonio Amadeo, the façade of the Colleoni Mausoleum (1470-75) in Bergamo and the Certosa of Pavia (begun in 1473, but executed mainly from 1492 onwards), though both are heirs to Venetian tradition rather than inspired by Alberti. The Colleoni Mausoleum is entirely clad in illusionistic rhomboids made from pink, white and blue marbles (fig. 9.34). The motif was common on antique paving (figs. 2.15-)

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6), which Amadeo may have known, though nearly identical revetment appears in painting by Piero della Francesca. Nonetheless, as Schofield has suggested, the on-site prompt was probably Filarete’s proposal for the façade of S. Vincenzo (now S. Alessandro), which faces the mausoleum and remained largely unexecuted, but for which he left a model and which he illustrated in his Trattato (fig. 9.35), and which was itself to some extent based on S. Miniato al Monte (fig. 9.26). A taste for tessellation is in any case attested in contemporary secular architecture as well (see Chapter 10).

Alberti’s colored classicism and the Venetian inheritance from Byzantium had little influence where we might most expect it, in Rome, the epicenter of ancient marbling. When the façades of the major churches of the Renovatio Romae, at S. Marco (begun 1466), S. Maria del Popolo (1472-77), S. Agostino (1479-83), were faced in stone it was not in marble but travertine, the material of antique engineering and the Colosseum. Only within the churches there is any evidence


78 On the wall behind the Virgin in Piero della Francesca’s Annunciation scene in Arezzo, not to mention the Flagellation in Urbino: Maria Maetzke, Introduzione ai capolavori di Pietro della Francesca (Cinisello Balsamo: Silvana editoriale, 1998): 193 and figs. on pp. 92, 97.

that the revetments of antiquity were at least being revived in paint, and then under the impetus of emigrée painters.

A series of chapels in S. Maria del Popolo decorated or inspired by Pintoricchio, the Cappella (di Domenico) della Rovere (Cappella di S. Girolamo, 1477/79), Montemirabile (Cappella di S. Giovanni Battista, 1479/84), Costa (after 1488) had walls of feigned panneling based to some extent, somewhat like the shape of the chapels themselves, on those in the fifth-century Oratory of the Holy Cross at the Lateran.\(^8\) There is no way of knowing if other examples have been lost, but the trend may have been given some further stimulus by the Cappella del Battista that Mantegna, a practised hand in both architectural illusionism and simulating marbles, decorated in the Villa del Belvedere for Innocent VIII, in 1488/9-90. A description of the chapel published only a few years before it was destroyed (1780), reveals that most of the wall space was taken up by figurative scenes, but does specify corner pilasters fictively supporting the impost cornice, window reveals “panneled in faux-marble,” and a genuine quincunx floor of intarsiated marbles; finally, the cupola was “adorned… with many roundels, each connected to the other in the form of a grille.”\(^8\) This last feature was a leitmotiv in the work of Mantegna and his followers, such that we can at least

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\(^8\) All remodelled in the late cinquecento such that the original decorations are lacunary: Claudia La Malfa, *Pintoricchio a Roma. La seduzione dell’antico* (Cinisello Balsamo: Silvana, 2009): 44-51, 92-95, figs. 12, 84-87 with bibliography; **LM in press.**

imagine the Vatican vault’s appearance from that painted in the vestibule of the Palazzo Fodri in Cremona in c. 1490/1500.\textsuperscript{82}

**The Chigi Chapel: Archaeology and Rebirth** in astris

In Rome there is also nothing to compare with the colored revetments of northern chapels before Raphael’s Chigi Chapel in S. Maria del Popolo, begun in 1513 but not actually completed until 1655, and this remained a complete anomaly until the Cappella Gregoriana was decorated in 1578-80.\textsuperscript{83} The patron,

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\textsuperscript{82} See the photograph in Lidia Azzolini, *Palazzi del Quattrocento a Cremona* (Cremona: Editrice Turris, 1994): 70.


Agostino Chigi, commissioned the chapel as a mausoleum for himself and his bride, Francesca Ordeaza.

Essentially, the chapel couples Bramante’s crossing at St. Peter’s with the material paradigm of the Pantheon in miniature (fig. 9.36). Raphael must have had his handiwork in mind when writing his well known Letter to Leo X (c. 1514/15 or 1519/20), which stressed that even if the architecture of our time has been much awakened and visibly very close to the style of the ancients, as one sees in the many beautiful works of Bramante, nonetheless the ornaments are not in as precious material as those of the ancients, who, with inestimable expenditure apparently put into effect whatever they imagined and whose will alone was enough to overcome any obstacle.84

Only in the Chigi Chapel did Raphael enjoy the financial wherewithal, of the richest man in Europe, to make good his promise to revive the precious accouterments of antique architecture.85 It was natural that Raphael, who was a painter by training and a brilliantly inventive architect by inclination, should have cultivated an interest in colored marbles, and this material penchant must have been encouraged by his 1515 papal appointment to procure marbles for St. 


Although Raphael was authorized only to safeguard stones bearing inscriptions, scouring the ruins will only have further sensitized him both to the vast palette available and the antique practices of applying revetment. In the Chigi Chapel, Raphael took the Pantheon as his model right down to the revetments in its portico, though in a more rigorously archaeological manner than Alberti, copying the marbled panelwork of the piers in antis around the main portal (fig. 10.39). It therefore seems possible that the most unusual feature of the chapel’s incrustations, the raised block revetment flanking the lateral pyramid-obelisks, derives from the same model. This hypothesis receives a measure of support from alterations made by an unknown artist to Raphael’s own drawing of the Pantheon interior (fig. 9.37), where opus isodomum revetment is visible in the exedrae above paneling with rotae and so forth. No such revetment now survives, and although Palladio records the

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68 Similar pannelling can be found throughout Ostia, e.g. the House of Cupid and Psyche: Maria L. Bruto and Cinzia Vannicola, “Ricostruzione e tipologia delle crustae parietali in età imperiale,” Archeologia Classica 42 (1990): 370 and figs. 41, 42. According to Frommel, Varignano’s use of such revetment on the façade of San Petronio in Bologna was influenced by the Chigi Chapel: Christoph L. Frommel, “Il progetto di Domenico Aimo da Varignana per la facciata di San Petronio,” in Una basilica per una città: sei secoli in San Petronio, ed. Mario Fanti and Deanna Lenzi (Bologna: Fabbriceria di San Petronio/Istituto per la storia della chiesa di Bologna, 1994), 233. Bentivoglio bizarrely suggests that, since the chapel is derived from Bramante’s crossing of S. Peter’s, Raphael bossed the wall in allusion to the unalterable boundaries that prevented the expansion of this reduced “St. Peter’s”; Christoph L. Frommel et al., eds., Raffaello architetto (Milan: Electa, 1984), 127.

69 Uffizi A 164: John Shearman, “Raphael, Rome and the Codex Escurialensis,” Master Drawings 15, no. 2 (1977): 107-46. Oddly, Shearman calls the detail a “horrible solecism” whilst conceding that “it is in practice difficult to reconstruct the cladding of these parts as they existed early in the cinquecento” (111).
same detail, he did not visit Rome until 1541. Nonetheless, were this revetment a draughtsman’s whimsy the rogue detail would still illustrate contemporary opinion. It also compliments Salviati’s view of the chapel, which shows that the unusual cladding was originally meant to fill the lunettes above the cornice level too (fig. 9.38). The single most expensive item in the chapel was the monolithic threshold of Aswan granite, costing six hundred Scudi and the only colored stone step in the entire church. Even this may have mimicked the Africano (Tean marble) monolith that provides a propitious welcome to the other Rotunda.

Few theories have otherwise been advanced to explain Raphael’s choice of marbles in the chapel. One of the most ingenious, that the names of the marble pun on the Sienese origins of the patron, does not tally with the utter inability of sixteenth-century observers to identify the geographical origins of almost any marble except porphyry. Instead, as Rowland has observed, there is an overall chromatic transition from black-and-white floor, through the fiery Chigi tombs and their earthy backgrounds, the subdued greens and blues of the pendentive tondi of the Four Seasons, to the brilliant azure and golds of the illusionistic

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90 Andrea Palladio, I quattro libri dell’Architettura (Venice: Domenico de’ Franceschi, 1570): Lib. 4: 82.

91 Uffizi 1193 E. The lateral pyramids were apparently inserted into the design at a late stage, as pentimenti suggest that the cornices were originally meant to traverse the fields between the corner piers: John Shearman, “Pentimenti in the Chigi Chapel,” in Art the Ape of Nature: Studies in Honor of H.W. Janson, ed. Luc Freeman Sandler and Moshe Barasch (New York: H. N. Abrams/Prentice-Hall, 1981), 219-22.

92 Cecilia Magnusson, “The Antique Sources of the Chigi Chapel,” Konsthistorisk Tidskrift 56, no. 4 (1987): 136-39. The threshold in Rosso di Syéne (Aswan granite) would recall his Sienese origins; Marmor Numidicum evoked Tuscany (because the marble was exported from Numidia on the river Tusca); Marmor Chium would pun on his name (“Chigi” Latinised is Chius).
mosaic, which revived Paleo-Christian decorations and evoked the celestial domain of God and the Zodiac.\textsuperscript{93}

The transitional elements linking the two zones are the twin cenotaphs on the sidewalls, whose proportions suggest pyramids but whose astragals identify them as obelisks.\textsuperscript{94} Pyramids were both tombs and symbols of eternity so they were eminently suited to a funerary chapel, while pairing them had more than one resonance in Renaissance Rome. First, it was known that twin obelisks had flanked the entrance to the Mausoleum of Augustus.\textsuperscript{95} Secondly, medieval tradition held that St. Peter had been martyred at a spot equidistant between two antique pyramids, that of Cestius and the even bigger \textit{Meta Romuli} near the Vatican (demolished in 1499).\textsuperscript{96} Thirdly, in the Trecento two pyramids were still visible standing near the Vatican for they are represented in contemporary altarpieces.\textsuperscript{97} Finally, the Piazza del Popolo itself had once contained three such \textit{Metae}, of which one had been demolished to make way for the church while the other pair remained englobed in houses bracketing the mouth of the Via del Corso.

What these monuments were once faced with we will never know, but the \textit{Meta Romuli} was believed to have been revetted in colored marbles, as Raphael

\begin{itemize}
  \item \textsuperscript{93} Rowland, “Render,” 705-06.
  \item \textsuperscript{94} The conflation is remarked upon in Shearman, “Chigi Chapel,” 132-36; Rowland, “Render,” 708 (note 119).
  \item \textsuperscript{95} Rowland, “Render,” 708-09.
  \item \textsuperscript{97} Margaret Finch, “Petrine Landmarks in Two Predella Panels by Jacopo di Cione,” \textit{De Artibus et Historiae} 12, no. 23 (1991): 67-82.
\end{itemize}
would have known from descriptions, manuscript illuminations, panel paintings, Pinturicchio’s depiction in the Borgia apartments (1492-4) and Filarete’s representation of it on the bronze doors of St. Peter’s (1434-45), where it is the only panel inlaid with colored enamel (fig. 9.39). Yet Raphael did not follow these fanciful reconstructions and instead looked to the signature material of obelisks, Aswan granite, which Pliny and all renaissance writers who followed him called “fire-painted.” The reason for making this assumption is that, to sixteenth-century antiquarians, both pyramid and obelisk, formally and etymologically evoked the imperial rogus, or funeral pyre. Moreover, pyramids were said to take the shape of eternal flames, and an etymology that was repeated as often as it was erroneous derived the word “pyramid” from the Greek pur (“fire”), the source of our own English “pyre.” The word “porphyry” itself was reckoned, incorrectly, to enjoy the same derivation, and this stone was also regarded as intrinsically fiery.

Although Raphael substituted porta santa (Chian marble) for Aswan granite or porphyry, the material still assisted the conceit because its red and grey veining could suggest both combustion and the funeral smoke wafting its

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98 In a vast literature, see Andreas Thielemann, “Altes und neues Rom: zu Filaretes Bronzetür, ein Drehbuch,” Wallraf-Richartz-Jahrbuch 63 (2002): 33-70 with bibliography. The Meta Romuli was stripped of its marbles in the 7th century to pave the atrium of St. Peter’s, so it was most likely revetted with white marbles, just like the Pyramid of Cestius.


101 See Chapter 1.
way heavenward. The smoke wafts up to the gold-and-blue mosaic constellations. There, in the “o’erhanging firmament,” the “majestical roof fretted with golden fire,” the evanescent soul would finally escape the shadowed world, traverse the ether, and enter the domain of the Zodiac to mingle with the stars and be reborn in astris. This passage is implicit in the color and composition of the materials, which help fulfill Chigi’s intention, recorded in the Bull of the chapel’s concession: “Desiring by a happy exchange, to turn earthly things into heavenly, and transitory into eternal.”

Raphael’s Chigi Chapel foretold the development of the medium in the Baroque in embryo, but it remained an anomaly in Rome and confident use of the material in the rest of Italy was sporadic and abortive until the 1570s. The few other milestones from the first half of the century are Silvestro dell’Aquila’s Arca di San Bernardino da Siena in the Duomo of L’Aquila (c. 1499-1505), Giuliano da Sangallo’s Gondi Chapel in S. Maria Novella, Florence (1503/8), and Lorenzo and Giambattista Bregno’s Cappella del SS. Sacramento in the Duomo, Treviso (1501-7). The Gondi Chapel is a tentative affair, with low panelled walls whose effects depend on a simple contrast between dark and light stones. The Cappella del SS. Sacramento instead copies the innovations of the Miracoli and


103 Giuseppe Marchini, “L’incrostazione marmorea della Cappella Gondi in S. Maria Novella,” Palladio 3 (1939): 205-11. Giuliano’s interest in antique crustae is clear from the Codex Barberini, which includes the Basilica of Junius Bassus, the Oratory of Santa Croce.

Cappella Bernabò with head-to-toe marbling that rendered as much honor as possible to the Blessed Sacrament it housed.

However, demand for the material and curiosity in its expressive potential was beginning to accelerate, at least on paper. In 1506, the Volterran humanist Raffaelle Maffei, whose brother would become the site-manager at the Villa Madama, thought *crustae* were simply marbled plaster. By 1521, however, Cesare Cesariano considered the creeping use of real revetment worthy of note, although one wonders exactly where he was looking. In 1535 the Florentine Filippo Strozzi even willed that his family chapel in the apse of Santa Maria Novella be marbled and Filippo Lippi’s frescoes destroyed “since [painting] is not very durable by nature” and marble is “perpetual.” But Strozzi draughted

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105 “Of which stones [*marmi mischi*] some of our people for the beauty and decorum of certain parts of buildings have begun (much more than it was ever previous custom) to saw up these stones with blades; some use copper, some lead, with the hard emery *sabulato* and bathing them in water, as is extremely well known, the kind of sawing that one finds in wall-revetment and in *asserati* and *opus sectile* pavements produces a delightful and superb ornament” (“De li quali saxi alcuni nostri per venustate e decoro de qualchi membri de li edificii hano comenzato più che non si soleva fare segare epsi saxi con le lame chi de aeramo e chi de plumbo, con lo aspero smiriglio sabulato e con l’aqua sguciolando, como è notissima tale sectione quale et in li pavitale concrustatione et in li pavimenti asserati aut vermiculati rende dilectevole e superbo ornamento”): Francesco Paolo Fiore et al., eds., *De Architettura, Vitruvio traslato, commentato e affigurato da Caesare Caesariano* (Milan: Il Polifilo, 1981), Lib. II, fol. 37v.

106 Strozzi’s two wills are in Giovanni Battista Niccolini, *Filippo Strozzi. Tragedia di G.-B. Niccolini corredata d’una vita di Filippo e di documenti inediti* (Florence: Felice Le Monnier, 1847): 315-22 (August 1535), 323-331. “Pregando il mio fratello che si contenti si faccia in detta cappella da una parte, nè abbia rispetto alla pittura che vi è oggi, quale è forza guastare, conciosia che di sua natura non è molto durabile: e rincengendo di bell’ornamento di marmo la cappella intorno, simile a quello de’ Gondi, sarà la cappella più ornate, e perpetua” (324). If his bones cannot be accommodated here, or in another part of the church, then he wishes to be buried in Venice; and if may only have a cenotaph, then it is to be “in quella bella e polita chiesa”, San Michele in Isola (325). I thank Caroline Elam for bringing this passage to my attention. It is previously cited in Alessia Turini, “Rivestimenti parietali marmorei in età rinascimentale,” *Quasar* 19 (1998): 118.
his will in the dungeon where he would end his days, and his last wish almost seems a projection of his cell walls onto the pride of a state that had disowned him petrifying his stamp on the city for a wishful eternity. His wishes were not, in any case, honored.

The High Altar of the Duomo, Vicenza (1534-36): Natural Magic and Marbles as Gems

For most of the sixteenth century there were two initiatives at play in the revival of marble use, one expressly all’antica the other tacitly neo-medieval. One sought to reclaim the syntax of ancient construction, the other clung to the ambient of the medieval reliquary and the thaumaturgy of gems, often at the cost of the visual unity of the container. Very rarely does one intuition take precedence over the other as clearly as it does in the Chigi Chapel.

Antiquarianism and reliquary imagery are inextricable in the Cappella delle Reliquie in S. Apollinare Nuovo, Ravenna, built in 1540 to contain the bodies of St. Apollinaris and St. John (figs. 9.40-41). These relics lie in an intarsiated marble casket held aloft by porphyry columns pilfered from Theoderic’s baldachin (493-526) over the high altar in the same church.107 Moreover, the archaeological fidelity of the revetment on the chapel walls, including the large intarsiated chalices, was again only possible thanks to its spoliation from the earlier church. Outside the “jewelled” style continued on a

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107 Emanuela Penni Iacco, La Basilica di S. Apollinare Nuovo di Ravenna attraverso i secoli (Bologna: Ante Quem, 2004): 100, 38. The restoration was undertaken by Fra Thomaso Bolognese, guardian of the convent. The chapel was mutilated in 1951 when the columns were transferred back to the high altar.
façade whose frame was studded with gem-like inserts and articulated with the best Ravennate spolia available: not only serpentine columnettes on alabaster columns but an extraordinary rarity, serpentine capitals. An excellent example of the tension between the two strains, classicizing and medievalizing, is instead the High Altar of the Cathedral of Vicenza (1534-36), built by the local “Pedemuro Masters,” Giovanni da Porlezza and Girolamo Pittoni da Lumignano, quite probably assisted by the youthful Palladio, to an overall design recently attributed to Sansovino (figs. 9.42-43). Originally the altar was freestanding, under the mouth of the choir, and its façade was a triumphal arch dedicated to the Corpus Christi. Its patron, Andrea Dall’Acqua, was to be buried at its foot (he died in 1539, three years after the altar’s completion).

108 Fra Giovan Francesco da Carpi: “Il deposito posto in questa cappella… è tutto di marmo diverso, percoso et indorato, posto sopra quattro colonne intiere bellissime tutte di porfido… e adornata nel murao da ogni lato da diversi marmi, d’agatho, serpantino et porfido… et di fuori nel frontespizio sono due preciosissime colonne d’alabastro fino… et oltre c’hanno i suoi capitelli di serpantino, sono bianchissime con le sue vene distinte et trasparenti, che non si può vedere alabastro di quello… et sopra loro sono altre colonne, di serpantino”: Penni Iacco, Basilica: 100. The marbles may have come from the ruins of the adjoining Palace of Theoderic.


110 Antonio Foscari and Manfredo Tafuri, L’armonia e i conflitti: la chiesa di San Francesco della Vigna nella Venezia del ’500 (Turin: Einaudi, 1983): pl. 25. In 2000 the altar was dismantled, cleaned and reassembled against the back wall of the apse, a position to which it had been transferred following the Council of Trent. Until the 1560s, and between 1945 and 2000, it stood forward of the Duomo’s choir on a podium of three or four steps.
a) Marbles as Gems

Altogether, this is the most ornate tabernacle-altar of the entire Renaissance, as its façade is truly a constellation of glittering hardstones, granites, marble plaques and polished globes. Moreover, while all the altar’s recherché mouldings and bases and capitals establish its credentials in the most up-to-date style of classicizing Renaissance architecture, the whole edifice is restored to the context of *ars sacra* by its overwhelming panoply of brilliant stones. This division between architectural membering and ornamental inlay in fact reflects separate competencies, for the altar was designed (possibly) by Sansovino while the vibrant stones were installed by the Pedemuro Masters under the direction of the patron.\(^1\) Fine marbles cover all surfaces, even the pilasters. Only the columns are unadorned. To a large extent the significance of these stones depends on their analogy to gems.

When stones were formally segregated in this way, their exquisite hues and high polish gave them an affinity with gems. This affinity had been exploited in Paleo-Christian and Byzantine churches (see Chapter 3; *figs. 3.11-13*), and Suger had voiced the transformation that came about when stones were mounted on sacred objects: “This stone [porphyry] deserves to be enclosed in gems and gold. It was marble but in these [mounts] it has become more precious than marble.”\(^2\) By the sixteenth century, some commentators believed that,

\(^{111}\) Morresi, “Cooperation,” 160-61. Morresi finds the altar “suffocated and weakened by excessive ornament… a true example of architectural *horror vacui*… The distinctive form of the architecture becomes a sort of framework for the decoration in an inversion of the usual relationship between structure and ornament, to the advantage of the latter and the decided disadvantage of the former” (160).

\(^{112}\) “Includi gemmis lapis iste meretur et auro. / Marmor erat, sed in his marmore carior est” Suger, XXXIVA; Erwin Panofsky and Gerda Panofsky-Soergel, *Abbot Suger on the Abbey Church of*
where size permitted, ancient architects had substituted gems for marbles.\textsuperscript{113} Moreover, as marble decorations became progressively more common in chapels during the sixteenth century, few contemporaries were slow to notice the gem allusion, and similar sentiments were even voiced in the Ottoman world.\textsuperscript{114} Contracts promoted the effect by commonly stipulating, “fine marbles have no flaws at all” and be keenly polished.\textsuperscript{115}

The gem analogy endured because such marbled tabernacles could conjure up both the Ark of Covenant and the Heavenly Jerusalem (see Chapter 3). The stones of Apocalypse, of course, were not marbles but gems. Yet, as Andrea Bacci would eventually point out in his 1597 treatise on the Papal Cope, early patristic commentators like Epiphanius and Jerome, had confused at least


\textsuperscript{113} Agricola, discussing alabaster, onyx, jasper and emerald: “Scrive anco Iuba, che solevano nell’Arabia ne gli ornamenti de gli edificii includere il Smaraldo […] come con l’arte si riducono i marmi in piccola quantità; in modo, che se ne fanno le gemme, che si chiudono poi in anelli, così al contrario le gemme naturalmente grandi, in luogo de’ marmi si pongono, & oprano”: Georg Agricola, \textit{De la generatione de le cose, che sotto la terra sono, e de la cause de’loro effetti e nature} (Venice: Michele Tramezzino, 1546): 319.

\textsuperscript{114} Borghini on the Cappella Niccolini, S. Croce, Florence (1584), “compartiti dodici pilastri di marmo bianco, fra’ vani de’ quali si vedranno, quasi gioie legate in oro, molte pietre fine orientali, alabastri cotognini e di diversi colori et ottangoli di bianco e nero da marmi candissimi circondati e ricinti”; Cappella Salviati, S. Marco, Florence (1579-89), “il bel composto di vari marmi del pavimento, le pietre orientali, come gemme in anelli in piu luoghi accomodati”: Raffaello Borghini, \textit{Il Riposo di Raffaello Borghini, in cui della pittura e della scultura si favella, de’ più illustri pittori e scultori e delle più famose opere loro si fa menzione; e le cose principali appartenenti a dette arti si insegnano} (Florence: ex typ. Marescotti, 1584): 602 & 589. Ca’fer Efendi (1614/15) writes, “if quarried marbles are compared with jewels, perhaps they would be found more precious than jewels, and among the people they would be of greater value than jewels. Royal marble and Marmara Island marble are like diamond. The marble called jade is like beryl. And the blue veins seen here and there in Zile marble are like turquoise. And the marble called porphyry is like ruby and carnelian… each one resembles a jewel”: Howard Crane, ed., \textit{Risale-I Mi’Mariye. An Early Seventeenth-Century Ottoman Treatise on Architecture} (Leiden: E. J. Brill, 1987), 71.

\textsuperscript{115} E.g. the contract for the (unexecuted) Rusticucci chapel, in the Gesù (1594), specifies stones be cut “a rena” (“sanded”) and “a smeriglio” (“with emery”) and that “i marmi gentili non habbino […] macchia accidentale alcuna”; ASR, Tribunale dell’A.C., Ricci, vol. 6232, fols. 613-618: Howard Hibbard, \textit{Carlo Maderno and Roman architecture, 1580-1630} (University Park,: Pennsylvania State University Press, 1971): 110.
two gems with the stones Onyx and Lapis. Moreover, sixteenth-century commentators were still in the grip of the Aristotelian system, regarding all matter as inter-transmutable compounds of the four elements under the influence of the four principles (see Chapter 4). Marbles and gems did not therefore occupy different physical categories but stood at different degrees on a sliding scale of materiality. They were different amongst themselves but fundamentally similar. Marbles shared the same crystalline essence as gems and crystals, just with more earthy matter mixed in (see Chapter 3). And even if marbles could not enjoy the brilliant transparency of jewels or crystals, observers from Restoro d’Arezzo (1282) to Vincenzo Danti (1565) still esteemed the saturated colour and hardness of porphyries and agates, thence their capacity for lustre, which likened them to gems. Porphyry and serpentine were treated like jewels in practice as well. Granites were normally sawn by the gem-cutters or crystal-workers who stocked emery, not by the stonemasons who used sand. It is hardly coincidence that it was a gem-cutter, Pier Maria Serbaldi da Pescia (1454/55 – after 1522), who first recovered the art of carving porphyry. The Venetians sprinkled precious porphyry and serpentine on church façades, like San Michele in Isola and the Miracoli, as though they were jewels and this

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116 Andrea Bacci, Le XII pietre pretiose, le quali per ordine di Dio nella Santa Legge adornavano i vestimenti del sommo Sacerdote, aggiuntovi il diamante, le margarite e l’Oro poste da S. Giovanni nell’Apocalisse in figura della celeste Gierusalemme: con un sommario dell’ altre pietre pretiose (Rome: Giorgio Martinelli, 1587): 1. A Latin version of Bacci’s treatise, De gemmis et lapidibus pretiosis, was published in Frankfurt in 1603.


118 Connell, Employment: 144-45. Connell notes that “there is no record of specialized segatori di pietre fine before 1480 and the emergence of these craftsmen probably went with the greater use of marble facing.” Cf. Butters, Triumph: 144, 71.
impersonation became clear-cut when they were also set in the form of the *crux gemmata*.\(^{119}\)

**b) Gems, Marbles and Sympathetic Magic**

But all writers could mention gems and marbles in the same breath anyway, because they belonged to a common metaphysical aristocracy. They could effect miracles, and they embodied light. In fact, on the Dell’Acqua altar, the analogy of marbles with gems acquires particular propriety because it conjures up the tradition of sympathetic magic, which held that all precious and semi-precious stones were dormant vessels of occult powers instilled in them by astral rays, which could be catalyzed by proper arrangement and invocation.

These beliefs originated in the lapidaries, of Hellenistic origin, that were copied and recopied well into the seventeenth century. Between the third and fifth centuries a group of lapidaries had been written in Greek, apparently in Alexandria, certainly under the influence of the Gnostics, but which purported to be works by, amongst others, the legendary Hermes Trismegistus.\(^{120}\) Each of these spun outlandish tales about the thaumaturgic properties of various stones, many of them unidentifiable or fictitious, and thereafter formed the basis for a

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\(^{119}\) The *crux gemmata* appears on the façade and in the choir of S. Maria dei Miracoli, and in the central panel of the west façade of the *barco* in S. Michele in Isola (1476/79). For the motif in early Christian and Byzantine art: Angelo Lipinski, “La ‘Crux gemmata’ e il culto della Santa Croce nei monumenti superstizi e nelle raffigurazioni monumentali,” *Felix Ravenna* 30 (1960): 5-62.

string of later medieval lapidaries, amongst which the most influential remained those by Isidore of Seville and Marbode of Rennes.¹²¹

Furthermore, between Theophrastus (315/305 BC) and Albertus Magnus (1254/61 A.D.), no systematic treatise on mineralogy was produced in the West. Galen and Dioscorides, for example, had only described and classified minerals used for medicinal purposes and ever after most such treatises continued to be written by physicians. In other words, semi-precious stones were overwhelmingly associated with curative or preventative agency, and hence thaumaturgy.

Reinforcing the credibility of this tradition was Pliny and his Christian reception. Pliny’s acceptance of stone power was all the more reliable for his dismissal of magic as fraud, and for Christians his word carried extra weight not only thanks to his divinisation of nature but because his writings on stones came with the recommendation of St. Jerome.¹²²

The tradition of writing lapidaries continued unabated into the sixteenth century, and the touchstone for Renaissance gem lore was the publication, in


Venice in 1502, of Camillo Leonardi’s *Speculum Lapidum*. The *Speculum* proved so popular that not only was it reprinted several times on its own or in compilations, and Lodovico Dolce eventually plagiarised it wholesale in an Italian translation of 1565. Leonardi’s book was itself, as he admitted, largely a compendium of earlier lapidaries, from Dioscurides to Marbode, but it also organized the earlier catalogues of stones into a treatise that layed out the principles governing their formation and physical qualities, the “virtues” instilled in them by astral rays and finally the means to draw out their potential by carving magical and zodiacal figures on them.

Leonardi had distinguished between the composition of gems and marbles but the distinction was always liable to blurring, as we can see from the earliest illustration of stars catalyzing precious stones (fig. 9.44). The illumination (c. 1023), in a manuscript of Hrabanus Maurus’ *De universo* (c. 842) in Montecassino, shows undulating lines (astral forces) descending from a star-studded arc (the sidereal sphere) to animate two rocks, shaped like doughnuts and gripped by an individual who seems electrified. There is no passage in

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Hrabanus’s text to correspond with the image and such “astrophysics” properly affects gems, not marbles; worse still, these stones are even labelled “common stones” (*de lapidibus vulgaribus*). Nor did such confusion die with the middle ages, for we find the same phenomenon in a text written only five years after the Dell’Acqua altar was finished, Pietro Contarini’s 1541 poem *Argoa Voluptas* (“Argoan Delights”). This contains a lengthy ekphrasis on the façade of S. Marco, which assigns the material of every column a Plinian label, which is incorrect in almost every case and prioritizes the thaumaturgic powers of the stones.\(^{127}\)

According to Leonardi, every mineral had its star and Bramante’s Milanese pupil, Cesare Cesariano, may have had this idea in the back of his mind in 1508, when he painted faux-marble disks within imitated coffers on the ceiling of the sacristy of S. Giovanni Evangelista in Parma (fig. 9.45).\(^{128}\) In Venice, *Rotae* had migrated to the walls and façades but never to ceilings. It is as if Cesariano had reunited gems with their originating virtues, making them heavenly bodies once more. It maybe for similar reasons, rather than faux-opulence alone, that the coffers in the Studiolo of the Palazzo Ducale at Gubbio are painted in imitation of

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lapis, serpentine, porphyry, jasper and white marble not to mention lavishly gilded (fig. 9.46).¹²⁹

The dell’Acqua altar in the Duomo at Vicenza was decorated with stones that the patron had assembled over a lifetime and his will specifies that the masons “insert all the porphyries, serpentines, jaspers, alabasters, marbles and fine veined stones and of every sort as shall be provided, pieces large and small, bale round and of every type.” It is customary to interpret such bequests as posthumous magnificenza but Dall’Acqua’s intellectual habits suggest otherwise. He was the author of the Catena Evangelica, a synchronic rewriting of the Gospels, and Puppi and Tafuri have stressed his reputation within Venetian humanistic circles and his intimacy with Francesco Zorzi, Pietro Bembo, Andrea Gritti, Giangiorgio Trissino and others.¹³⁰ Zorzi was author of a famous memoriale prescribing modifications to Sansovino’s design for S. Francesco della Vigna, designed to “tune” the building to the Cosmos on the basis of a harmonic-proportional reasoning of obvious magical-hermetic inspiration.¹³¹ It was also, tellingly, Zorzi who praised Dell’Acqua’s Catena Evangelica as attaining a “Concord, inspired by the Holy and Harmonic Spirit” and Zorzi may even have recommended the altar’s architect to Dell’Acqua.¹³² Finally, Zorzi had also


¹³² Morresi, “Cooperation,” 175 (note 51).
written a book that must have been well known to Dell’Acqua, *De Harmonia Mundi* (1525), which included a lengthy commentary on the stones of the Heavenly Jerusalem, tackling the questions: “Why is it said that this city was built out of gold?” “Why were the walls of Jasper?” and “What were the twelve stones in the foundation?” After a digression on the means by which stones possess supernatural powers, he eventually reveals the “real material of the heavenly city,” light. Light was the “brilliant spirit,” the “spiritual splendor or divine fire, vivifying and making all things glow,” the *fundamental element* of the “city of light” where the angels and blessed will reside together.\(^{133}\)

In this sense, the glittering display of the Dell’Acqua altar is still in step with the analogical materiality of medieval tradition of Hypatius and Suger, where glitter and shimmer inspired dull minds to rise to truth. The altar’s opulence, craftsmanship and studied aniconicity also recalled the Ark and the Heavenly Jerusalem, honored God, and the variety and abundance of stones constituted a mineral map of His creation.\(^{134}\) Thus, the only sculptures on the altar are the two, gilt-bronze angels that turn to face the door of the Sacrament,

\(^{133}\) “splendidus spiritus”, “splendor spiritualis vel divinus ignis, omnia collustrans et omnia vivificans”: Francesco Zorzi, *De Harmonia Mundi Totius Cantica Tria* (Venice 1525), 3: 101r-102r, cited in Tafuri, *Jacopo Sansovino*. Applying the theme of musical harmony to the structure of the text itself, the book is divided into three “Canticles,” the first composed of eight “Tones,” each subdivided into between 8 and 36 chapters. The 8\(^{th}\) “Tone” of the 3\(^{rd}\) “Canticle” is divided into 20 Modules. The 1\(^{st}\) Module deals with “Materia” and is divided into 5 “Concentiae”: 1) “Cur dicitur civitas illa aedificata ex auro;” 2) “Cur parietes ex iaspide;” 3) “Quid sibi velint duodecim lapides in fundamento;” 4) “Digressio unde lapides habint vim;” 5) “Quae sit vera materia supernae civitatis.” I have consulted the copy in BAV, R. I. II. 1013. This is partially illuminated: the Proemium to the first canticle is decorated with two lions bearing the Medici arms, presumably of Clement VII.

\(^{134}\) Nagel calls the altar “the most ‘abstract’ altarpiece produced during the Italian Renaissance,” regarding the absence of any painting as a conscious decision not to detract from the Real Presence of the Sacrament, the priority of representation: Alexander Nagel, “Experiments in Art and Reform in Italy in the Early Sixteenth Century,” in *The pontificate of Clement VII: History, Politics, Culture*, ed. Kenneth Gouwens and Sheryl E. Reiss (Aldershot: Ashgate, 2005), 406.
just like the cherubim on the lid of the Ark (fig. 9.43). Likewise, it is more than coincidence that the marble globes that are immured in this altar reappear in thirteenth- or fourteenth century illuminations, encrusting the ramparts of the Heavenly Jerusalem (fig. 9.47). The stones seem to radiate, almost irradiate, from the Host at the altar’s heart, and their cosmic pretensions underlie their congregation within a great “fanlight” resembling a star-studded firmament. To some extent the model for these encrustations was another Sacrament Altar, that inserted by Lorenzo Bregno into the apse of S. Marco in 1518, from which our altar borrowed the design of some of its intarsiated whorls, a motif which originally held Christological connotations (fig. 9.7). The only area of the Dell’Acqua altar that is conspicuously not “bejewelled” is the stepped plinth below the tabernacle door, of stridently veined and book-folded alabaster. This departure is perhaps explained by the continuing association of alabaster with light-filled cloud (Chapter 3). Patristic writings could not make too much of the identification of Christ with cloud, and cloudiness with His flesh, hence with the Incarnation. Hrabanus Maurus is the most succinct on the subject: the cloud-tabernacle paralleled Christ-Ecclesia and, “allegorically speaking, in fact, cloud…

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signifies the incarnation of Christ.”¹³⁸ This perceived similitude could and perhaps did provide an especial incentive to use alabaster on a Eucharistic tabernacle. The altar also honors the donor, for his family arms appear three times, but considering that he was buried at the altar’s foot it is just as likely that this gesture tied his posthumous destiny to the function of the funerary Mass and the daily resurrection effected by the Eucharistic rite.

Not only that but through the analogy of gem “astrophysics” the altar offered an image of transformation and a metaphor of divine agency at the most appropriate venue in the church, the High Altar, the place of Eucharistic sacrifice and, in this case, also the Tabernacle for the consecrated Host. The power of gems was innate but dormant. They were sleeping volcanos and only proper ritual could transform them and invoke their beneficent agency. The same could be said for the Eucharistic Host and by the thirteenth century lapidaries had become quite explicit on the point, even beginning by comparing the power of gems to the act of Transubstantiation. The Lapidario Estense, in fact, opens with the following words:

1) According to proverb, in olden times one said that in stones, words and herbs reside the virtues...
2) By virtue of the words that the priest says at the altar during the office of the Mass, the host, which appears to be lifeless bread, becomes the living body and the wine, which fills the chalice, becomes the living blood.
3) We also know that water and many other things become holy by the virtue of words, with the sign of the cross [...]

¹³⁸ “secundum allegoriam vero nubes... incarnationem Christi significant”: In Num. (PL 91, col. 364 A)
12) Because of the virtues that reside in stones, he who holds them and carries them correctly receives many graces and escapes many dangers.\textsuperscript{139}

\textsuperscript{139} “1 Per proverbio antigamente se disse che in le prete et inele parolle et inel’erbe sì sonno le vertute... 2 Per le virtute delle parolle le quale dice el prèvede a l’altaro inel’offitto della messa, l’ostia, che pare pane morto, deventa corpo vivo e ’l vino, che sè inel calice, deventa sangue vivo. 3 Ancora savemo che l’aqua e molte altre cose deventa sancte per virtute di parolle, cum el signo della crose […] 12 Per le vertute che sè in le prete, ch le tene e chì le porta ordenatamente rezeve molte gratie e scanpa da multi pericoli”: Piera Tomasoni, ed., \textit{Lapidario Estense} (Milan: Bompiani, 1990), 20-22.
Chapter 10: Quattrocento and Cinquecento Renaissance Palaces

Chapter 10
Quattrocento and Cinquecento Palaces

Venice and the East

The Venetians neither confined colored marbles to interiors nor limited them to churches, as they were the delight of their most palatial homes as well. Perhaps the very first Venetian house for which there is any record (829), at Torcello and owned by a certain Theophilatus, was stone-clad, but if so it was an isolated case. Instead, the building that would palpably propagate such magnificence was the Palazzo Ducale (1340-1365/67; 1424-c. 1450), the largest and most famous palace in Venice, actually the only seigneurial residence there to bear the name “Palazzo” (fig. 10.1). Its rose-and-cream façade was the noblest expression of Venice as a princely Republic, the alter ego to San Marco’s bejeweled façade, and wherever La Serenissima established administrative palaces on her Terra Firma she equipped them with this stone uniform.1


2 E.g. Palazzo della Ragione, Vicenza, by the ingegere Domenico da Venezia and the taiapria Matteo di Giovanni, both Venetians (1451-1460). The pre-Palladio diaper cladding of the basilica remains in situ at the terrace level: Franco Barbieri, La Basilica palladiana (Vicenza: Centro internazionale di studi di architettura Andrea Palladio, 1968): pl. 4. In 1493 Lilio calls it “una magnifica residenza fabricata veramente con singolar maestria di bianche e rosse pietre lavorate polite et recate in quadro,” Barbieri, Basilica: 32. At Udine, not only did the Palazzo Comunale (c. 1448-1455) copy the cladding, but the piazza was also paved in 1482/84 “iuxta quam in Venetiis salizatur” (“just as they pave in Venice”), i.e. with alternating brick and stone courses: Donata Battilotti, “Piazza Contarena a Udine. Uno spazio veneziano per la Serenissima,” in La Piazza, la chiesa, il parco: saggi di storia dell’architettura (XV-XIX secolo), ed. Manfredo Tafuri (Milan: Electa, 1991), 9-55, esp. 22.
As with the façade of San Marco, the sources of this diaper patterning, and the façade as whole, have been the subject of much debate with observers divided between Byzantine or Moslem, even Iranian, forerunners.\textsuperscript{3} As regards possible Byzantine precedents, there are broad similarities between the Veneto-Byzantine palace typology and the sea-façades of Diocletian’s palace at Split, as well as the remnants of the Boukouleion Palace in Constantinople\textsuperscript{4} (fig. 10.2), but otherwise evidence of Constantinopolitan palace exteriors is virtually non-existent.\textsuperscript{5} While luxury residences were certainly swathed in marbles (see


The situation has now been clarified by Schulz: Jürgen Schulz, The New Palaces of Medieval Venice (University Park PA: Pennsylvania State Press, 2003): 12-21. Schulz puts paid to the putative derivation of the Romanesque Venetian palace from late antique, Byzantine, “exarchal Byzantine,” late-antique revival, and Islamic sources (Swoboda, Temanza, Séroux d’Agincourt, Ruskin, Venturi, Tocesca, de Beylié, Fiocco, Forlati, Demus, Mareto, Krautheimer, Arslan, Bianchi, Concina, Dorigo, Howard), or even the Christian basilica (Dorigo). Instead, he sees this type as a subset of an “upper-hall house” very common throughout Western Europe. His findings do not, however, affect any discussion of Venetian façade cladding.
Chapter 2, as things stand, it is only an assumption that they were externally revetted. Yet palaces “shining afar with checkered patterns of stone” must have existed in Byzantium by at least the mid fifth-century, when Nonnos describes just such a façade. Moreover, colored ceramic, multicolored stone, or mixed brick and stone, are archaeologically attested on the façades of Byzantine buildings in the ninth and tenth centuries, and because this practice spread through the Balkans it may have made its way to Venice, though again no examples survive.

But not all transmission was necessarily this immediate. Misunderstanding and happy error had also their creative part to play. Throughout the Middle Ages and into the Renaissance, pilgrims and itinerant antiquarians were liable to identify just about any hulking ruin as a palace, and one in particular, the “palazzo de Sesare” (the firewall of the Forum of Augustus) would inspire a whole new breed of rusticated palaces in Florence beginning

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7 Dion. 18.63. See Chapter 2.

with that of Cosimo de’ Medici. Venetian aristocracy and artisans, for their part, may also have conjured up palaces from Byzantine piles, even contemporary descriptions of the late imperial palace, or the earlier Boukoleion Palace where, “there was no column that was not of jasper or porphyry or some other rich precious stone.”

Indeed, the Byzantine connection seems to be confirmed by one tantalizing exception to the destruction of Constantinopolitan palaces, the Tekfursarayi (“Palace of the Sovreign”; fig. 10.3), probably built in 1261/91 for Constantine Porphyrogenitus as a wing of the city’s last imperial residence. And its brick-and-stone polychromy suggests that other, comparable, palatial models did once exist. Certainly in the minds of Venetian, or Venetian-trained, artists like Cima da Conegliano and Carpaccio eastern palaces were always sheathed in precious stones and when they painted these locales they projected back onto them the image of contemporary Venice (fig. 10.4).

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11 For the identification: Mango, “Constantinopolitana,” 330-36. Concina comments that the delicate “juxtaposing of white Istrian stone and red Verona marble [on the Palazzo Ducale] seems to hark back to the imperial colours of Constantinople and the similarly elaborate use of two colours and decorative geometrical motifs found in contemporary Byzantine architecture such as the palace of Constantine Porphyrogenitus (Tekfur Sarayi),” Ennio Concina, *A History of Venetian Architecture* (Cambridge: Cambridge University Press, 1998): 84-86.
On the other hand, even if the models for the Palazzo Ducale were instead Islamic, we need not bypass Byzantium to reach them. Spheres of influence did overlap, trade exchanges always continued across the Mediterranean, and there were longstanding and reciprocal transmissions of artists and their skills. As early as c. 830 the Emperor Theophilos had built the Palace of Bryas, Constantinople, in imitation of one in Baghdad. Moreover, several Islamic decorative practices including glazed brickwork would infiltrate Byzantine palace design again during the 1140s, and in cultural buffer zones like Syria and Lebanon Greeks and Arabs continued to work side by side.\textsuperscript{13} In fact, in 1211 William of Oldenburg attributed the very success of the extraordinary marble and mosaic decorations in the Beirut palace of John I of Ibelin to the friendly rivalry between Syrian, Saracen and Greek artisans.\textsuperscript{14} Conversely, Western, especially Venetian, influences are equally visible in the Tekfur Sarayi as they are in the Paleologan Palace and other monuments of Byzantium’s last capital, Mystra.\textsuperscript{15}

\textsuperscript{12}E.g. Carpaccio’s \textit{Disputation of St. Stephen} (Milan, Pinacoteca di Brera); Cima’s \textit{St. Mark healing Anianus} (1499; Staatliche Museen Gemäldegalerie, Berlin).


\textsuperscript{15} For Krautheimer the Tekfur Sarayi resembles Romanesque or Gothic castles in France and Germany: Krautheimer and Curci, \textit{Early Christian and Byzantine architecture}: 473-75. Mango points to western borrowings in the machicolations, animal gargoyles and heraldic escutcheons: Mango, “Constantinopolitana,” 334. The palace at Mystras (c. 1250-1400) exhibits a roster of un-Byzantine features, including Venetian-Gothic windows on the throne-room, which were updated to round-headed windows at some point in the Quattrocento. The apse of the Pantanssa church (1428) also has conspicuous gothic ornaments on its exterior.
The stone polychromy of Venetian palace façades was no innovation in the West either. Romanesque buildings, mainly churches, across Europe had vaunted often quite dazzlingly striated masonry, where the differentiation of color again claimed the rainbow fibrillation of brilliant light. But the will to clad palace exteriors in lavish, colored marbles is noticeable in Venice as nowhere else in Italy, or Europe for that matter. When the Byzantine Emperor John VIII Palaeologus visited Venice in 1438, he and his delegation were mesmerized by the city’s beauty, which one of them later described as “marvelous in the extreme, rich and varied and golden . . . and worthy of limitless praise.”16 When the pilgrim Pietro Casola visited Venice in 1494, he was just one of many visitors so stunned by the marble panoply of Venetian palaces that he acclaimed Venice “the promised land.”17 One can conclude that, even had no secular marble model ever existed, the phenomenon would have still resulted from proximity to Constantinople and its supply of marbles.

The Fourth Crusade may, again, have provided the impetus for marble display on Venetian palaces, for one chronicle claims that after 1204 Doge Enrico

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17 “The pomp of her buildings, especially the public ones, may be described only by those who have witnessed it but it would be hard for anyone who has not seen them to believe the quantity of marbles of every fato and colour, and so well worked that it is astounding” (“La pompa del suo edificare, maxime in edificii publici, se pò scrivere da chi ha veduto particularmente, ma duro da credere a chi non ha veduto tanta quantità de marmori de ogni fato e colori e tanto bene lavorati, che è uno stupore”): Giulio Porro-Lambertenghi, ed., Viaggio di Pietro Casola a Gerusalemme (Milan: P. Ripamonti Carpano, 1855), 9. E.g. Philippe de Commynes (1495): “the houses [of Venice] are very large and high and made of good stone, and the old ones are all painted; the others built in the last hundred years, all have fronts of white marble, which they bring from Istria, a hundred miles from here, and they also have large slabs of porphyry and serpentine on the front” (“Les maisons sont fort grandes et haultes, et de bonne pierre, les anciennes, et toutes painctes; les aultres faictes puis cent ans, toutes ont le devant de marbre blanc, qui leur vient d’Istrie, à cent mil de là, et encores mainte grant piece de porfille et de serpentine sur le devant”): Bernard de Mandrot, ed., Mémoires de Philippe de Commynes, 2 vols. (Paris: Alphonse Picard et fils, 1903), 2: 208.
Dandolo had marbles sent back from Constantinople to decorate the façade of his son’s palace, the Ca’ Farsetti (1200-1208/9). Of course, this could be another Venetian triumphalist myth, but well into the fifteenth-century, palaces like the Ca’ Morosini (now Sagredo) and the Ca’ d’Oro continued to incorporate re-used Byzantine bas-relief panels and tondi. Later authorities even believed, erroneously, that the Palazzo Ducale itself was built from the abundant and valuable marbles that La Serenissima had collected through its supremacy over Greek lands. With or without roundels, the taste for extraordinary polychromy also continued through the fifteenth century and characterized palace fronts from the famous Ca’ d’Oro (carved 1425-29, erected and finished 1429-1433; figs. 10.5-6), to the Ca’ Contarini, to the equally famous Ca’ Dario (c. 1481/94; fig. 10.7). All these were families that held long associations with Constantinople, both before and after her fall, and thereby access to her antiquities and marbles.


too. The Contarini, one of whose members wrote the earliest ekphrasis of the façade of San Marco, fought in a line regiment in the final desperate defense of Constantinople, while Giovanni Dario was ambassador to Bayezit II in 1479-87.\textsuperscript{22}

The vast majority of Venetian palace façades are not marbled all over, or Istrian stone prevails, but it is still characteristic for porphyry and serpentine rotae to continue to stud them like jewels and this may well reflect Byzantine practice as well.\textsuperscript{23} No other Venetian palace façade would ever match the material exhibitionism of the Ca’ Dario, but even once foreign (i.e. Tuscan or Roman) architectural language had taken root, the tradition was hard dieing that porphyry and serpentine stude palace façades like jewels. Whether this continuing taste can eventually be traced back to Byzantine practice is hard to say, though when Venetian, or Venetian-trained, artists like Cima da Conegliano and Carpaccio depicted eastern palaces they always sheathed them in precious stones.

The Veneto and Lombardy

Under Venetian influence the taste for marble façades extended, here and there, across northern Italy. Francesco di Giorgio Martini recommends decorative

\begin{itemize}
\item This might explain why a similar usage appears on the lateral façades of the Süleymaniye Mosque (1550-57), Istanbul, unless this constitutes a Venetian influence on Ottoman architecture.
\end{itemize}
reticulate bossing and imbricated tessellations, which he must have prized at least for their sheen because he calls the tiles, “feathers” (fig. 10.8). His recommendation was quite possibly a distorted recollection, of the type that had been common in the days before printed books, of a passage in Pliny that actually referred to roof-tiling, and then with a white stone. But it is just as possible that he was misled by the reticulate and tessellated *plutei* that had been reused to clad some medieval church exteriors, such as the Duomo of Modena. Whatever the case, it is noteworthy that the tessellation Francesco di Giorgio recommended was actually employed at least once, to clad the stair added to the Palazzo della Ragione (the basilica) at Vicenza in 1495/96, where it is colored (figs. 10.9-10). The Colleoni Mausoleum (1470-75) in Bergamo, on whose façade Giovanni Amadeo had resuscitated the perspectival-lozenge motif in colored


25 HN 36.159: Pliny describes a “brilliant stone” easily sawn to make roof tiles that resulted in “a kind of roofing known as the peacock-style” (“pavonacea tegendi genera”). Pliny evidently had the bird’s hackles in mind.


stones for the first time since antiquity (fig. 10.12), perhaps drew inspiration from the same quarter.  

Cesare Cesariano’s 1521 commentary on Vitruvius also offers a fascinating insight into the state of architectural knowledge across Lombardy, the Veneto and the Po valley. When discussing masonry types (2.8; fig. 10.11) Cesariano says of opus reticulatum:

Amongst these walls in opus sectile are these which are reticulate: they were invented by the Persians and were used for the magnificence of the incrustations that could be made with various colored, well polished and lucid stones: as they did in the Palace of Mausoleus: Unable to find the varied and colored stones appropriate to mosaic-work: some like the Egyptians and the Arabs used terracotta sherds and painted and glazed their surfaces in the way that they make the vases called Damascene: which we still use and make just like the Egyptians of Damascus  

Cesariano’s grasp of antique construction was as pitiful as his geography but, leaving to one side the curious issue of exactly what renaissance architects

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understood *opus reticulatum* to be,\(^{30}\) his spectacular error offers a keyhole onto wider misunderstandings. It might even reflect the authority of Venetian construction tradition itself. For, it is noteworthy that Cesariano associated this sort of decoration with the Near East, perhaps a dim memory of the Byzantine importation of Islamic decorative practice, and his only real conduit for this association could have been Venice. Cesariano was himself adept at painting imitation stone and marble, and one of his few architectural works, the atrium of S. Maria presso S. Celso, Milan (after 1513) features colored marble revetment and bronze capitals (*fig. 10.13*).\(^{31}\)

Cesariano not only mistook *opus sectile* for *opus reticulatum*, as we have seen, but also thought glazed brickwork was a good substitute where stone revetment was unavailable. Caporali copied his errors, and these were further disseminated across Europe by those who plagiarized his illustrations.\(^{32}\) Even

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\(^{30}\) Alberti uses an overscaled reticulate pattern as a dado on the façade of the Palazzo Rucellai. Filarete does the same on his designs for two palaces, one of them set in Venice: John R. Spencer, *Filarete’s Treatise on Architecture*, 2 vols. (New Haven/London: Yale University Press, 1965): 2: Lib. XVIII, fol. 151r; XXI, fol. 170r. The unidentified painter of the *Ideal City* in Urbino (Galleria Nazionale delle Marche, no. 178a) depicts the same masonry on the church represented. Filarete also disposes the reticulate pattern on his design for the cathedral of Sforzinda: Spencer, *Filarete’s Treatise*: 2: Lib. XVI, fol. 123r. Alberti might have been inspired by the reticulate patterns in the lateral tympana of San Miniato al Monte, but these uses also raise the question of transmission of Byzantine dictyotheton; Arthur H. S. Megaw, “Byzantine Reticulate Revetments,” in *Caristhvrion eis Aναστάτων K. Όρλάνδον* (Athens: 1964), 10-22.

A rare and later instance of the archaeologically correct revival of *opus reticulatum* is on the façade of Giulio Romano’s Palazzo Adimari, Rome.


\(^{32}\) “Ma non possendo havere delle varie colorate pietre atte a segarsi piane alcuni come gli Egyptii & gli Arabi, gli usorno d’opera di vasari facendoli di piati invetriati in superficie nel proprio modo che usano fare i nostri Derutesi & di maiolica & d’altrì variatamente simiglianti a gli
when discussing Greek *emplekton* masonry (II, 40v; *fig. 10.14*), although Cesariano correctly illustrated the wall as faced with panels, one of them marble, he illustrated the wall core as the brick usual in northern Italy rather than the stone that Vitruvius had prescribed. Cesariano, it seems, was unable to stifle his predilection for marbles, and his illustration of *Opus Tetradorum* (a type of brick wall) is again shown as marbled, while his discussion of bricks digresses on the subject of marble revetment fixings on the contemporary Duomo in Milan and the antique Porta del Popolo. In fact, the only constant in Cesariano’s garbled mélange of antique masonry techniques is that he cannot conceive of a wall as finished, whatever its true construction, until it has received a veneer of marble or a simulation of it.

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33 Fiore et al., eds., *De Architettura*, fol. 40r.

34 “Even though the structure might appear to you continuously split all over [=having clear shear paths], yet the mortar and cramps solidly hold it together in order, just like the marble pieces of the Cathedral of Milan which are tied with iron and lead anchors. And there are many of these in Rome, above all on the Porta Flaminia. But to show you their walls are ordinarily joined between the orthostate columns [?], I have placed them there, as though they had already been revetted in stone. And they are set as pictures, and can be seen not only in Rome, but in many places throughout Italy, in which their firmness and their appearance or their beauty are displayed on both sides with charm” (“Benché la structura ti paresse scissa sempre in continuazione, tamen la calce e la clavicule che consolidamente per ordine le reteneno, como son li pezi marmorei de la sacra aede de Milano, quali sono con le ferree anse plumbate e colligate. E de quisti molti sono in Roma, maxime in porta Flamininia. Ma per denortarte le loro pariete colligate intra le orthostate columna ordinariamente, quivi le ho posite, cum sia già molte incrustatione de sectilee pietre. E in picture si pono, non solo in Roma, ma in molti loci per Italia videre, quale confermitate e la specie vel pulchritudine da l’una e l’altra parte se dimostrano con venustate,” Fiore et al., eds., *De Architettura*, Lib. II, fol. 34v). The last comment reflects Cesariano’s attempt to understand Vitruvius’ comment (*De Arch. 4.4.4*) that “protruding joins surrounding the vertical and bedding joints will produce a more pictorial effect [graphicoteran efficient in aspectu].” He visualizes the peripheral channelling as frames and the bosses as canvases.
Faux-marble mansions and Jeweled Palaces

Today a handful of Romanesque, Gothic and early Renaissance palaces survive in Venice with the façade adornments intact, but paintings by especially Carpaccio also demonstrate that there were once far more palace fronts adorned with painted patterning, including the diaper pattern of the Palazzo Ducale. Not content with simply painting the brick or stucco, the Venetians also “upgraded” humble stones into precious marbles. Istrian stone, for example, was sometimes painted to simulate more precious “Greek marble,” and before too long fine intonacos were being devised from marble chips and soap to imitate the same effects.

Nor was this desire for colored marble palace façades confined to Venice. We find elaborate designs for them in Urbinate intarsia work and painting, and the poet Alberto Avogadro da Vercelli extols (1459-65) the porphyries, alabasters and serpentines cladding the façade of the Palazzo Medici in Florence, where

35 Wolters, Architektur: 73-77.

36 On the Ca’ d’Oro, for example, Giovanni di Francia streaked the Istrian stone battlements in imitation of marble (“merli sia ombrizadi amuodo de marmoro”) and the Veronese marbles were oiled to give them the appearance of a higher polish than normally possible; Connell, Employment: 150-51. Marmorino was used from the 16th century. A render of Istrian Stone chips was normally laid over a layer of brick-dust, then varnished with soap, wax, or olio di lino cotto and finally polished. Sometimes Veronese marble-dust or coloured earths were mixed in to emulate further the effects of marble; Emanuele Armani and Mario Piana, “Primo inventario degli intonaci e delle decorazioni esterne dell’architettura veneziana,” Ricerche di Storia dell’Arte 9, no. 24 (1984): 50-51 and fig. 11.

37 The doors (1470s/80s) of the Sala del Trono, in the Palazzo Ducale at Urbino, show two palazzi, one with a serpentine frieze and the other with a porphyry frieze: Maddalena Trionfi Honorati, “Prospettive architetttoniche a tarsia: le porte del palazzo ducale di Urbino,” Notizie da Palazzo Albani 1-2 (1983): 38-50. These are presumably influenced by the depiction of the Praetorium of Pilate in Piero della Francesca’s famous Flagellation (1460/70?) now in the Galleria Nazionale delle Marche, Urbino, and formerly in the sacresty of the Duomo: Maria Maetzke, Introduzione ai capolavori di Pietro della Francesca (Cinisello Balsamo: Silvana editoriale, 1998): 210-23 with bibliography.
such decorations plainly neither exist and nor could have ever existed. In the larger Veneto and Po valley, where brick was the staple building material, or where marbles were not available or the budget would not allow them, they were often simulated in paint, and fragmentary examples survive on Quattrocento and Cinquecento palace façades in Ferrara, Mantua and Verona (fig. 10.15).

There were three predominant motivations for these simulations. Firstly fictive revetment constituted another imaginative reclamation of antiquity, as we find it remembered in contemporary drawings like that of a "triumphal arch" (fig. 10.16) which a north Italian, possibly Paduan, craftsman drew in his album around 1500. Secondly, marbles were an expression of nobility. Giovanni

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38 "If you ask what it is that binds together the stones, it is tenacious bitumen which joins white marble to the structure, but the façade is not of marble; what the soft bitumen connects has stones of three bright colours. A stone worthy of shining alabaster occupies the topmost part, porphyry stone the right-hand side. The left is of the stone which our ancestors called serpentine in the vulgar tongue, oh portal worthy of the verses of Apollo, and where you may see elegant statues on walls and red columns, which have never before been counted" ("Si peters quid saxa ligat, quae marmore cano / Adligat, et tenax mole bituminea, / Sed faciem non marmor habet, quod molle bitumen / Nectat, habet triplici clara colore petra. / Consipcius loca summa tenet petra digna alabastri, / Dextraque porphyreus vult tenuisse lapis. / At, quem serpentis vulgo dixere priores, / Laeva habet, o Clarii ianua digna modis, / Et qua signa potes muris spectasse pilisque / Culta rubris, ex sunt nec numerata prior"). Alberto Avogadro da Vercelli, "De religione et magnificentia illustris Cosmi Medices Florentini," in Deliciae eruditorum, ed. Giovanni Lami (Florence: Pietro Caietano Viviani, 1742), ll. 141-50, cited in Ernst H. Gombrich, "The Early Medici as Patrons of Art," in Norm and Form: Studies in the Art of the Renaissance (London: Phaidon Press, 1966), 45. For more poetry by Avogadro in a similar vein: Ernst H. Gombrich, "Alberto Avogadro’s Descriptions of the Badia of Fiesole and of the Villa of Careggi," Italia Medioevale e Umanistica 5 (1962): 217-29.

Rucellai associated this notion of “nobility” (gentilezza) with the attraction exerted by the incrustation of variegated slabs and inlaid stones. Accordingly, when he visited Rome for the Jubilee of 1450, he eulogized the “noble” ornaments of Early Christian monuments. Filarete spoke of stones expressly in terms of class distinctions, likening them to the three ranks of “noblemen, citizens and peasants.” Gems formed the upper class of “nobility,” but stones like Parian, porphyry, serpentine and alabaster were not far below.

A century later (1567) Daniele Barbaro continued to specify that “marbles approach the honor of gems, for their beauty and their grace, and especially those noble marbles, which through the variety of their colors, or their great beauty, refinement, splendor, or transparency give rise to wonder, marbles like Parian, Porphyry, Serpentine, Alabaster and other similar marmi mischi, or granites.” Thanks to this age-old distinction porphyries and marbles ennobled the base materials of construction and so stucco façades must also receive stone window- and door- frames (or stucco-over-peperino imitations) not just for wear but as the trimmings of nobility. Even a palace façade completely fashioned out

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43 “I marmi sono prossimi all’honor delle gemme per la bellezza, & gratia loro, & specialmente que marmi nobili, che per la varietà di colori, o per la gran bellezza o finezza, & splendore, o trasparenza danno meraviglia, come il Pario, il Porfido, il Serpantino, l’Alabastro, & altri simiglianti marmi meschi, o graniti”: Daniello Barbaro, *I dieci libri dell’architettura* (Venice: Francesco de’ Franceschi Senese & Giouanni Chrieger Alemanno compagni, 1567): 84.
of travertine, like that of the Palazzo Riario (Cancelleria; 1489-1510), still had to have window frames of finer white marble set within it to show that Raffaele Riario belonged to the crème de la crème (fig. 10.21). 45

The third motivation depends on a double analogy, not only that marbles are like jewels, but also that a princely façade is comparable to a princely garment. Next we must recall the belief that the jewellery that princes wore did not simply display wealth but, deus et tutamen, also protected the bearer thanks to the celestial virtues that the individual gems attracted (see Chapter 8).

Virtually all literature on gems since antiquity dilated, again and again, upon the virtues that were latent in gems thanks to rays from the stars, and this sort of “astrophysics” was common knowledge for all nobles and their courtiers.

Hundreds of renaissance lapidaries sustained this belief and aristocrats often preserved lavish examples, like the Lapidario Estense, in their palace libraries or

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45 For the academic discussions behind the surface articulation of the Cancelleria façade: Margaret Daly Davis, “‘Opus isodomum’ at the Palazzo della Cancelleria: Vitruvian Studies and Archaeological and Antiquarian Interests at the Court of Raffaele Riario,” in Roma, centro ideale della cultura dell’Antico nei secoli XV e XVI: da Martino V al Sacco di Roma 1417-1527, ed. Danesi Squarzina Silvia (Milan: Electa, 1989), 442-57. The palace marbles also became the subject of panegyric: “Nature adorned me with varied veins and by art / The small stone in your house [speaks for] great glory. / You will wonder perhaps that we mute marbles speak: / There are so many virtues to this lord that the rocks decline to bide their words” (Evangelista Maddaleni de’ Capodiferro; Vat. Lat. 3351, un-numbered folio (c. 1500/10): (Circum Marmur. Pro Francisco Schiattesio ad Raphaelem Riarium S.R.E. Camerarium: / Me varijs venis natura ornavit et arte / Parvus in aede tua Gloria magna lapis. / Miraris forsan quod Marmora muta loquamur: / Tot merita in dominum saxa tacere negligent). On the poet: Hubert Jantischek, “Ein Hofpoet Leo’s X. über Künstler und Kunstwerke,” Repertorium für Kunstwissenschaft 3 (1880): 52-60; Giovanni Ballistreri, Dizionario Biografico degli Italiani, 18 (Rome, 1975), 621-5.
wrote out their own abridgements.⁴⁶ Such pastimes must have made patrons particularly alive to stone connoisseurship. The metaphor of a jeweled façade may have therefore underlain the frontage of the Palazzo Schifanoia in Ferrara, enlarged by Borso d’Este in 1465-69, and the façade decoration of fictive coffered intarsie imitating alabaster, porphyry and other marbles (figs. 10.17-18).⁴⁷ This conclusion seems inescapable for the Schifanoia not just because Borso’s predilection for gems was excessive enough to earn the hypocritical censure of Pius II, but because of the murals that he also commissioned from Francesco del Cossa within the building (1470). As Warburg’s famous study demonstrated, the Salone walls were divided into three registers with the Decans (the rulers of ten-degree slices of the zodiac) and zodiacal signs occupying an upper tier, and the beneficent effects of their conjunction on the well-governed Ferrara illustrated below.⁴⁸

Princely façades like the Schifanoia must have been more common than today’s miserable tally, for Cima da Conegliano illustrates just such a palace in

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⁴⁶ E.g. the lapidiary in Archivio Segreto Vaticano, Fondo Della Valle-Del Bufalo 86, no. 25. It was probably written by the poet Niccolò della Valle, who died in 1456. Kind reference of Kathleen Christian.


the background of his *Theseus at the Court of Minos* (c. 1495-7, fig. 10.18b). Mantegna himself had repeated the signature faux-revetments of his earlier *Camera Picta* (1465-74) on the exterior of his own townhouse opposite the equally bejewelled S. Sebastiano (see Chapter 9). Another Mantuan palace (fig. 10.19) copied the same faux-revetments on its exterior, but its linked disks are again more reminiscent of jewellery than structural cladding. Another slightly later palace (1500/30) in the same city has analogous faux-intarsie and even a “panel” of interlaced rotae like that on the Ca’ Dario, except with a diamond at its centre. The jewel metaphor might also account for the Venetian motif of rotae, or panels, in real porphyry or alabaster panels that not only stud façades but appear as *clipei* suspended off them by ribbons, almost like campaign medals but set with marbles that seem huge rubies, emeralds and agates (fig. 10.20-1).

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52 Palazzo Guerrieri at Via Cavour, 96: Noris Zuccoli, *Mantova. Intonaci e coloriture architettoniche* (Mantua: Alinea, 1986): 33, figs. 27-30. Zuccoli also illustrates the remains of more Mantegnesque rotae on the early 16th century Torre della Podestà in the Piazza Broletto (Zuccoli, *Mantova*: fig. 31). The faux-masonry that the architect Luca Fancelli had painted on the outside of the Domus Nova in the Palazzo Ducale, around 1480, exhibited red, yellow and greenish blocks with faceted edges. These may imitate gems too.

Analogously, the gem metaphor seems more than likely to subtend Isabella d’Este’s apartment in the Castello at Mantua. Here, porphyry- and serpentine-inlaid portals, carved by Tullio Lombardo with stones provided by the Marchesa, graced her *studiolo*. Stepping up and out of this room into the *Grotta*, the courtier would also pass through the *Porta Gemmea*, carved by Gian Cristoforo Romano or Tullio Lombardo in 1522-24. The marble *specchiature* in its jambs of fine, statuary marble visibly pun on gems (fig. 10.22), and in the *Grotta*, with its intricate, probably neo-Cosmatesque, porphyry and hardstone floor, he might linger and pore over actual cameos and Isabella’s impressive collection of gems.

**Diamond Palaces**

Faux-marble façades were probably far more common in cities like Ferrara than today’s brick sobriety would suggest, but even when Ercole d’Este (Borso’s brother) built the shining white Palazzo dei Diamanti (fig. 10.23) for his illegitimate son Sigismondo in 1492, the semi-magical potential of gems emerged to subsume and embody the whole building. The encomium that Ercole’s court

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54 Clifford M. Brown, “Tullio Lombardo and Mantua. An Inlaid Marble Pavement for Isabella d’Este’s Grotta and a Marble Portal for the Studiolo,” *Arte Veneta* 43 (1989-90): 121-30; Rodolfo Signorini, “‘Una porta gemmea’. Il portale della Grotta di Isabella d’Este in Corte Vecchia,” in *Per Mantova una vita. Studi in memoria di Rita Castagna*, ed. Maria Lorenzoni Anna and Roberto Navarrini (Mantua: Publi-Paolini, 1991), 25-52. Lombardo’s lost pavement was installed in 1522. That it contained porphyry and hardstone roundels can be inferred from Lombardo’s letter to Isabella (12 January 1522), which explains that some tondi are bedded higher than their marble frames because they take far longer to wear. That it was neo-Cosmatesque I suspect from the earlier request by Isabella d’Este (August 1507) from Giorgio da Negroponto: “un pavimento de profidi et serpentinì et altre pietre amachiate de quelli pavimenti antiqui che se trovano qui a Roma”: Alessandro Luzio, ed., *Lettere inedite di Fra Sabha da Castiglione* (Milan: Bortolotti, 1886), 6, no. 3. Isabella may have been inspired by the *Camerino d’alabastro* at Ferrara but the Castello at Mantua already had a “chamerino intarsiato” (i.e. faux-marble) by 1462, and this was to become Isabella’s *Grotta*; Vincenzo Cantarelli and Clifford M. Brown, “La torretta di San Nicolò del castello di San Giorgio a Mantova (circa 1395-1530). Fra ipotesi e certezze,” *Quaderni del Palazzo Te* 10 (2002): 85, figs. 6-8.
humanist, Giovanni Sabadino degli Arienti penned, five years later (1497) spells this out, comparing Ercole d’Este to Augustus in these familiar terms:

Just as Caesar Augustus said of himself, that he had found a Rome of brick and would leave it in marble, so too will your Highness, by virtue of your magnificence, be recognized by posterity with the greatest glory: that you found a Ferrara of painted brick, and you will have left your indomitable image carved in adamantine marble. As a result of which one can already make this judgment: that this, your city, gleams more than oriental gems and will be among the most wondrous cities in the World.55

No classical precedents exist for such jagged skins, which were probably invented by Bartolomeo Bon, and the default position is to regard them as gentrified fortification.56 But the Palazzo dei Diamanti was the flagship of a vast

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56 The earliest example of a façade “de marmoro a diamante” is the Ca’ del Duca, begun in the 1450s for the Corner family, probably by Bartolomeo Bon: Luca Beltrami, La ‘Ca’ del Duca’ sul Canal Grande ed altre reminiscenze sforzesche in Venezia (Milan: U. Allegretti, 1900). Diamantine bossing took over from the Trecento diaper cladding on the Rio frontage of the Palazzo Ducale when Antonio Rizzo built this wing in the 1480s. Gelao claims, on what basis I cannot fathom, that the bugnato of the Palazzetto Borgia at Bisceglie in Puglia predates 1450 (even though “manca qualsiasi dato documentario sulla cronologia”): Clara Gelao, “Palazzi con bugnato a punta di diamante in terra di Bari,” Napoli nobilissima 27, no. 1-2 (1988): 12. Most other Puglian palaces in this style date from as late as the 1560s: Gelao, “Palazzi,” 12-28. In Naples, the architect Novello de Sancto Lucano also built a palace with diamond-point cladding for Roberto Sanseverino, Prince of Salerno, in 1470. This skin still survives rebuilt as the façade of the Gesù (1584): Gelao, “Palazzi,” 17-19 with bibliography. For an excellent survey: Adriano Ghisetti Giavarina, “Il
new quarter (the *Addizione Erculea*) in a self-confident city and any allusion to fortification, more appropriate to a villa in the open and perilous countryside, should have been quite alien. Moreover, such diamantine bossing happens to coincide with the advent of the horizontally turning cutting-wheel that finally made precision-faceting of diamonds possible, faceting that is necessary to increase their reflectivity. Fifty years later after the fact, Serlio still knew that the architects who used such pyramidal bossing, “wished to imitate cut diamonds” (*diamanti lavorati*).

When Paolo Cortesi’s later tract *De Cardinalatu* (c. 1510) refers to palace façades – one of the few that does – it prescribes that they be imposing to subdue a lawless mob, specifying that they should “dazzle the eyes of the people,” given more to the senses than reason, “by its dignified splendor.” Bedazzling and celestial palaces of gems had featured in late antique poetry, the various redactions of the *Alexander Romance*, the *heliokastra* lovingly described in medieval Greek romances, and all their chivalric imitations – descriptions of rooms in real Constantinopolitan palaces – in Petrarch’s *Africa*, and in his many

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58 “Such decorations of palaces which make them appear attractively designed and sumptuously executed are also to be recommended for reasons of prudence. Thus the ignorant mob will be deterred from threatening the cardinals with harm and from plundering their goods by the mightiness of the building and through admiration for its opulence. Since it is clear that the uneducated mob are led by its senses rather than by rational reflection, we can see why the sight of the sumptuous cardinals’ palaces easily restrains the admiring multitude from doing harm; for since the multitude is guided by the feeble judgement of the senses, it believes the cardinal’s power to be so great as to prevent the mob from expelling the cardinals or plundering their goods”: trans. John P. D’Amico and Kathleen Weil-Garris, “The Renaissance Cardinal’s Ideal Palace: A Chapter from Cortesi’s *De Cardinalatu*,” in *Studies in Italian Art and Architecture 15th through 18th Centuries*, ed. Henry A. Millon (Rome/Cambridge MA/London: MIT Press/Edizioni dell’Elefante, 1980), 88-89.
imitators. The most heavenly of all was the apocalyptic Jerusalem, which, as everybody knew, from Scripture or images, was an edifice of gems. It is enough to look at the illuminations of Les Visions du chevalier Tondal (c. 1470), where the pilgrim is shown a heavenly, gemmed wall that “was so bright and shiny that it would ward off any displeasure or trouble,” and “inspire with consolation and joy the hearts of those who looked upon it” (fig. 10.24). In fact, such diamantine walls may trace their origins to jewel-encrusted, heavenly mansions in medieval mosaic, or those shimmering walls that medieval mosaicists expressed with a diagonalizing, diamond-point convention (figs. 1.15, 10.25-6). Indeed, diamantine graffito on late quattrocento palaces is hardly distinguishable from this precedent (fig. 10.27). In at least one instance, the side façade of a palace in Verona (fig. 10.28), such diamond-point cladding was painted, but the stones are colored like rubies or amethysts, suggesting that the wall is truly gemmed.

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60 “When they had come a little further, they saw a wall that was so high and beautiful and resplendent that all the others were nothing in comparison. This wall was wrought with precious stones of assorted properties and numerous colours. Its metal was so intermingled with them that it shimermed as if aflame, and its mortar, indeed, resembled fine gold. The names of these precious stones were: crystal, jasper, chrysolite, hyacinth, sapphire, emerald, onyx, topaz, sardonyx, chrysoprase, amethyst, and garnet. This wall was so bright and shiny that it would ward off any displeasure or trouble, and it would inspire with consolation and joy the hearts of those who looked upon it”: trans. Thomas Kren and Roger S. Wieck, The Visions of Tondal from the Library of Margaret of York (Malibu: J. Paul Getty Museum, 1990): 59, pl. 20. The Visions recount a Dantean journey through hell and purgatory that culminates in this vision of the wall.


Indeed, Sabadino degli Arienti, the court humanist at Ferrara, recognized that Ercole d’Este had encrusted his Palazzo dei Diamanti with not just any marble, but one that resembled diamond thanks to its faceting. Moreover, the faceted apices of the palace do not point proud in parallel ranks, but fan out in a camber to catch the light, so that the building’s overall surface is faceted in a gentle arc. Pliny had praised diamond above all other stones, as did Renaissance lapidaries, because of its “in-domitable virtue” (a-damas) and diamonds were a favourite of princely and imperial treasuries.

Confirmation of the diamond-point conceit comes from the building contracts of a palace which lost no time in emulating the Ferrarese model: the Palazzo Raimondi (façade 1495–96) in Cremona, executed by Giovan Pietro da Rho and Bernardino da Lera to the design of the patron, Eliseo Raimondi (fig. 10.29). The Veronese-red pilasters are offset with faceted blocks of Brescian marble – a limestone that does not discolor, and so never dims – that, as the mason’s contract notes, must portray “a thousand marble diamonds well carved,


worked and fashioned, in the very image of the existing diamond of the aforesaid Lord Eliseo.”

In Filarete’s aristocracy of stones, diaphanous ones were the most noble because, “this is how the noble Lord must be: he should be splendid and clear without a single blemish even though he is handled and touched by many.” And however, Filarete dutifully reserved diamond for the temporal-spiritual Pope because it was both the hardest and most luminous of stones: the Pope, he says, “must strike other lords when it is necessary, and he ought to reflect the virtue in himself as the diamond does.” The diamond more generally stood for eternity, and when coupled with another emblem, like feathers, some unwavering virtue. The diamond had long been a d’Este device, such that the supporters of Ercole d’Este called themselves the “diamanteschi,” and there was a Camera dei Diamanti in the Corte whose now lost murals may, as Thomas Tuohy has suggested, resemble those that still survive in Vignola.

The prickly skin of the Palazzo dei Diamanti reminded the public of the prince’s pellucid virtue by allowing him to bare his teeth in public, so to speak.

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67 “diamantes mille marmoreos bene sculptos, laboratos et fabricatos, ad instar diamantis existentis prefatum dominum Eliseum [accusative: sic],” contract, 3 January 1495, with Battista and Antonio de Molinari di Rezzato, in Monica Visioli, “Documenti per Palazzo Raimondi,” Artes 1 (1993): 84, 85-86. Thomas Coryate observed one palace in Verona: “amongst the rest beautified with a passing faire front, which was contrived wholy with pointed diamond worke... this whole front was adorned with it from the bottome to the very toppe, which yeelded admirable grace to the edifice”: Thomas Coryate, Coryats crudities (London: William Stansby, 1611): 322-24.


This re-evaluation of diamantine masonry becomes complete, when we understand that such masonry reappears on fortresses for the same reasons, because diamond is so hard that no earthly weapon can dent it. This is, in fact, the conceit that probably underlies Antonio da Sangallo’s design of the ramparts on the Fortezza da Basso in Florence (c. 1534-37; fig. 10.30). Here the diamond-point masonry alternates with ball-embossed blocks. Together they allude to the Medicean arms and impresa, the ball and the diamond (ring), but they also suggest that any canon ball would simply have punctured on the their diamond-points. After all, diamonds are forever.

**Inside the Palace: Vestibula and Atria**

Alberti prohibited the use of even white marbles (Hymettan or Parian) in the home, scoffing that “such things belong in Temples” but others remembered that all parts of the palace of Mausoleus were finished in Proconnesian marble, and cherished the otherworldly impact of palaces carpeted in porphyries, alabasters, and serpentines. Some patrons, inspired either by the knowledge that phengite had figured in the Domus Aurea or the continuing popularity of the

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71 “la quale per rispetto dell’impresa de’ Medici, è fatta a punte di diamante e di palle schiacciate, e l’una e l’altra di poco rilievo: il qual composto tutto di palle e diamanti, uno allato all’altro, è molto ricco e vario e fa bellissimo vedere”: Vasari-Milanesi 1: 129. Francesco Gurrieri and Paolo Mazzoni, La Fortezza da Basso, un monumento per la città (Florence: Ponte alle Grazie, 1990).

Chapter 10: Quattrocento and Cinquecento Renaissance Palaces

Alexander Romance, also wished to be bathed in golden light like their ancient forebears. In 1457, for example, Giovanni Rucellai extolled the “windows made of alabaster in place of glass” in the Salone of Giordano Orsini’s Roman palace, the Palazzo Montegiordano, and then probably emulated the practice in his own palace in Florence. Cosimo de’ Medici reserved marbles for his palace chapel, but an anonymous poet extols his “figures and inlays of serpentine and of alabaster and porphyry and marble,” and a 1459 description by Niccolò de’ Carissimi da Parma also praises “a garden made with the finest of polished marbles with diverse plants,” which, predictably, “seems a thing not natural but painted” so much that, again predictably, whoever witnessed the palace’s entire splendor saw “things that were more celestial than earthly… in sum, it is believed that there is no other earthly paradise in the world than this.”

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73 See Chapters 2 and 3.


There were numerous editions of the Alexander Romance in Latin and modern languages. The last Greek version of the text, published in Venice in 1529, preserves the passage that bedchambers were made of a stone that shone like the sun (Εἰς δὲ κοιτῶνας εὔμορφος, λιθόν όσα θέλει, / ὅσαν τὸν ήμιον ἔλαμπαν, πών φέργει καὶ ἀνατόλελει;); ll. 2331-2332, in David Holton, ed., The Tale of Alexander (Thessaloniki: Byzantines kai Neellenikes Bibliothike, 1974), 167. Cf. Polifilo’s description of the chapel “wondrously built from precious phengite… which stone is so miraculous in nature that even though [the chapel] had no windows but was all closed… it was all brightly illuminated (in a way unknown to us, this stone absorbs light) and perhaps takes its name from this” (“di pretioso phengite mirabilmente extructo… la quale petra di tale miraculosa natura che non essendo finestrata ma tutta obtusa… per tuto chiaramente era illuminato (dalla nostra cognitione secreto absorpto da essa parente) et peroe chusi è denomnata,” Giovanni Pozzi and Lucia A. Ciapponi, eds., Hypnerotomachia Poliphili, 2 vols. (Padua: Editrice Antenore, 1964), 1: 213).

75 “Fighure e ‘ntagli v’è di serpentinj / et d’alabastri et di porfidi et marmi,” “poy un zardino facto tutto de bellissimi marmori politi cum diverse piante, che non pare cosa naturale ma dipincta… et chi le vede iudica che siano più tosto cose celeste che terrene… in soma, per tutti se crede che al mondo non sia altro paradixo terrestro che questo”: Rab Hatfield, “Some Unknown Descriptions of the Medici Palace in 1459,” Art Bulletin 52, no. 3 (1970): 233, 34, 46, 47. Cf. the Irish
It was beyond most patrons’ purse to use real marbles on the palace interior, so imitation substituted. In Rome this particular revival of colored marble use can be traced back to its tentative origins in the pontificate of Sixtus IV (1471-1484). Whilst Sixtus is better known for refounding the city’s brick industry, resurrecting Rome in freshly-baked brick just as Augustus had transformed the brick one into marble, the simulated peristyle in colored marbles that he had painted on the walls of the Bibliotheca Graeca in the Vatican palace (1475/77) initiated an equally influential trend. However, there must have been earlier examples if Leon Battista Alberti can write in De re aedificatoria (1443/52), “for the cladding (frescoes/stuccoes/revetment) of walls there is no pictorial composition more pleasing and admirable than that which represents colonnades of stone. The emperor Titus had the portico where he was want to stroll decorated with intarsie of terse stones from Phoenicia, in the splendor of which all things could be seen just like a mirror.”

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76 “Romam denique ex lutea latericia sicut olim Augustus ex latericia marmoream reliquit”: Raffaello Maffei Volterrano, Commentariorum Urbanorum Raphaelis Volaterrani (Rome: Ioannes Besicken, 1506): fol. 316r.


78 Alberti, de re aedificatoria (IX, 4): “in crustationibus pari et parietum nulla picturae coniectatio erit gratior atque spectatior quam quae lapides colunnationes exprimat. Porticium qua spatiani consuesset Titus Caesar tersis foeniceis lapidibus distinxerat: quorum splendore quasi ex speculo omnia viderentur.” The reference to Titus and Phoenicia is a garbled recollection of the story told
In the adjoining *Bibliotheca Latina* Melozzo da Forlì portrayed the pontiff surrounded by four of his nephews (including Girolamo Riario) and the humanist Platina in a completely marbled library (fig. 10.31). The illusionary back wall of this scene, and the actual wall surfaces around Melozzo's fresco were painted an emerald green almost certainly because another court humanist, Francesco Patrizi, scoured classical and medieval authorities to recommend that library “walls must be in polished stucco and ornamented a green color, for all things green benefit the eyes and restore keen vision.” This belief had originated with gems, and then transferred to marbles, *cipollino* in particular, and latterly to polished stucco. Perhaps intagliatori meticulously faked serpentine disks in the marquetry of the Gubbio *studiolo* (fig. 10.32), not to mention its ceiling (fig. 10.33), with this illusion in mind, not just to feign opulence but to recall those eye-soothing stones in signet rings of which classical authors had spoken.

by Suetonius (*Domit.* 14.4) about Domitian and *Phengites*. Cosimo Bartoli (in the first Italian edition of *De re*, 1550) translates “in crustationibus parietum” as “nelle corteccie de le mura.”

79. “*Poliantur parietes opere tectorio adornenturque viridi colore, viridia enim omnia oculis prosunt, acremque aciem reddunt,*” Francesco Patrizi, “De institutione rei publicae,” in BAV, Vat. Lat. 3084 (1471), lib. VIII, fol. xv. Patrizi’s treatise was mostly written by 1464 but presented in 1471; Maria G. Aurigemma, “Note sulla diffusione del vocabolario architettonico: Francesco Patrizi,” in *Le due Rome del Quattrocento: Melozzo, Antoniazzo e la cultura artistica del ’400 romano*, ed. Sergio Rossi and Stefano Valeri (Rome: Lithos, 1997), 364-79. Cf. Isidore, *Etymologiae* 6.11.2-3: “Since the more skilful architects think that ceilings with gilded coffering should not be placed in libraries, nor the pavements be made of anything other than Carystian marble, because it deadens the brilliance of gold and the greenness of Carystian refreshes the eyes” (“Cum peritiores architecti neque aurea lacunaria ponenda in bibliothecis putent, neque pavimenta alia quam e Carysteo marmore, quod auri fulgor hebetet, et Carysti viriditas reficiat oculos”). Isidore’s opinion is still echoed in Scipione Maffei, *Verona Illustrata* (Verona: Jacopo Vallarsi e Pierantonio Berno, 1732): Tom. III, cap. IV, 190-91.

80. Vitruvius also recommends that “the space between colonnades and open to the sky ought to be embellished with green things; for walking in the open air is very healthy, particularly for the eyes, since the refined and rarefied air that comes from green things, finding its way in because of the physical exercise, gives a clean-cut image, and, by clearing away the gross hmsors from the eye, leaves the sight keen and the image distinct” (*Vitr. De Arch.* 5.9.5).
After the Bibliotheca Graeca monumental faux-marble interiors prospered in Rome. Around 1476/81 an accomplished painter, possibly Melozzo again, painted the Sala dei Notabili (or Sala della Piattaia) in the palace of Raffaello Riario’s uncle, Girolamo (now Palazzo Altemps; figs. 10.34-5). Girolamo’s palace was the gathering place for artists like Melozzo and prominent humanists (including Luca Pacioli who commended marble cladding for the ideal building) to convene and discuss mutual artistic interests. In the Sala dei Notabili the fiction of an engaged colonnade against an opus isodomum wall of possibly alabaster blocks presumably imitated some part of the Roman house, like the vestibulum or atrium (what Cortesi called the Aula), components whose true appearance and function were as yet imperfectly understood. Residences of the upper echelons “should have stately porticoes, and handsome courts with everything else in imitation of a public edifice, that tends to dignity or ornament” (9:1, 157v/158r) and such porticoes should enclose the principal unit of the

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house, the cortile, whose social and physical functions rendered it “a public Market-place to the whole house,” for from it “derives all the advantages of communication and light” (5:17, 87). The bosom is the main part of the house, acting like a public forum.

In some examples, it is clear that the chain of fictions expressed a progression through the house, from illusionistically open courts to closed rooms in which faux-marble panels definitely seal the perimeter. These ideas were at work in Pintoricchio’s frescoes in the Palace of Domenico della Rovere (c. 1481), the Belvedere of Innocent VIII (c. 1487 – c. 1490), the Sala del Mappamondo in the Palazzo Venezia (1489/91), and partly in the Borgia Apartments as well (1492-94). In the Palace of Domenico della Rovere the contrast is particularly evident in the great Salone, whose walls simulate files of freestanding columns en ressault bearing a tall attic, quite possibly derived from the Forum of Trajan (fig. 10.36) or Nerva – both said to be palaces – while the cardinal’s audience room feigns an extravagant floor-to-ceiling revetment (fig. 10.37).


The frescoes are are normally dated to the 1490s but now redated to the early 1480s: Claudia La Malfa, Pintoricchio a Roma. La seduzione dell’antico (Cinisello Balsamo: Silvana, 2009): 81-87. Pintoricchio painted the Sala delle Lunette or Sala dei Profeti e degli Apostoli (audience room) and the Sala del Gran Maestro (Salone); Aurigemma and Cavallaro, Palazzo: 46, 48, 175-82, 94-97. The rooms were uncovered and heavily restored beginning in 1958. Aurigemma suggests the Forum of Nerva as a model, but it should be noted that a large section of the end wall (the “spoglia Christi”) of the Forum of Trajan, with engaged columns in giallo antico was standing until 1526:
Raphael, Peruzzi and others

All of this was, however, an idealized antique wrought from long effort in the libraries. It was a concept of the antique epitomized in, but not confined to, texts like the *Hypnerotomachia Poliphili* (Venice, 1499) that reiterated and compounded their sources right down to the spelling mistakes. From these beginnings, and from the sweeping reform of architecture that Bramante affected in Rome in the first decade of the sixteenth century, the tradition was decisively revitalized in the hands of Raphael, who coined a more archaeologically rigorous version that his pupils then exported back to northern Italy.

Raphael advocated reviving colored marble architecture in his *Letter to Leo X* (c. 1514/15 or 1519/20), vetted the ruins for building materials (see Chapter 8), but the importance of materials to his project to revive Rome is also reflected in the work of his collaborator, Andrea Fulvio. Fulvio’s *Antiquaria Urbis* (1513) disapprovingly recaps the topoi of classical marbles from Statius and others. After a potted history of Rome from the Republic to the advent of the Barbarians,

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For example, when Colonna cites the fabled column display in the House of the Gordians, he repeats Alberti’s transcription from a corrupt manuscript of the *Historiae Augustae Scriptores* [Gord. 32, 2], writing “tisteas” for “carysteas” and “simiades” for “synnades”; Pozzi and Ciapponi, eds., *Hypnerotomachia*, 2: 105; *De Re aedificatoria*, 9.1, fol. 158r. See also, for example, the extremely knowledgeable identifications of marbles mentioned by Statius in Poliziano’s commentary: Lucia Cesarini Martinelli, ed., *Angelo Poliziano. Commento inedito alle Selve di Stazio* (Florence: Sansoni, 1978), 235-38, 448-49, 655.
and then the Popes, in which he declares that God has infused Rome with His spirit, Fulvio laments that the Republic was proceeding nicely,

Until the state was turned towards wanton luxury;
Until private and public buildings with marbles
Were paved with floors to exceed ancient tradition
With their cut marbles, and painted with emblems all over
They had been ennobled by the external splendor of stones.
There stood yellow onyx gleaming with glassy brilliance,
And specular stone from Arabia: snake-stone famed for its markings,
Synnadian and Thasian stone, and green Lacaenian marble, and purple rock and that which stony Caryostos
Offers: and [that which] the unexhausted Cyclades send from their high cliffs
And every sort of stone that shines forth in the world,
Painted pavements and lofty ceilings which are distinguished
By the hand of their masters and splendid in their skill.

By contrast, and typifying an inherited schizophrenia about marbles,
Fulvio’s slightly later *Antiquitates Urbis* (1527), the declared philological companion to Raphael’s archaeological research, became the first guidebook on Rome to contain an appendix on colored marbles.

Raphael himself made good his promise to revive the medium’s architectural use only in the Chigi Chapel (see Chapter 9), but his workshop resumed the practice of simulating revetment on the palace interior. One of their earliest essays in this medium may have been the decorations of the *Sala Vecchia*

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89 Paolo dal Rosso’s Italian translation of the *Antiquitates Romae* was published in Venice in 1543, and reprinted in 1588 with addenda by Girolamo Ferrucci. In the preface Fulvio declared that he would describe Rome “non geographice, sed ethymologice… non ut architectus, sed historico more.” In the 1527 edition the section *De marmorum generibus quibus urbs decorata est* is in Lib. V, fol. C.
degli Svizzeri (or Camera dei Paramenti, c. 1514-15) in the Vatican, for according to Vasari’s Vita, Raphael’s pupil Giovanni da Udine decorated it with “certain panels imitating colored stones of various types and similar to the ancient revetment that the Romans used to make in their baths, temples and other places, as one can see in the Pantheon and the portico of St. Peter’s.”\footnote{“Volendo poi papa leone far dipignere la sala, dove sta la guardia de’ Lanzi, Giovanni… fece per le faccie alcuni spartimenti di pietre mischie finte di varie sorti e simile all’incrostature antiche che usarono di fare i Romani alle loro Terme, tempi et altri luoghi, come si vede nella Ritonda e nel portico di S. Pietro”: Vasari-Milanesi, 6: 554-55.}
The precise location of the antique prototypes must have been equally influential, because the Sala Vecchia was the originally the first room in the sequence of the more famous Stanze and its liminal nature was spelt out in inscriptions on the ceiling.\footnote{John Shearman, The Vatican Stanze: Functions and Decorations (London: Oxford University Press, 1972): 8-9. Giovanni da Udine’s paintings probably disappeared about 1558. This room also led into a fictive peristyle, the Sala dei Palafrenieri (or del Pappagallo), decorated by Raphael’s shop in 1517/18; Shearman, Vatican Stanze: 369-424; Tristan Weddigen, “Raffaels Papageizimmer. Raumfunktion und Dekoration im Vatikanpalast der Renaissance” (PhD, Technische Universität, Berlin, 2001).}

Today Giovanni’s lost decorations can be visualized from three sources. Firstly, the Ceres or Allegory of Wealth (1516-17) now in the Louvre (fig. 10.38), which he probably painted in collaboration with Giulio Romano as an exquisite, sliding cover to Raphael’s Small Madonna;\footnote{Sylvie Béguin, “Cérès,” in Raphaël et l’art français (Paris: Réunion des musées nationaux, 1983); Michael P. Fritz, “‘Una tavolletta doviziosa.’ Gedanken zu einem Frühwerk Giulio Romanos in Paris,” in Diletto e maraviglia: Ausdruck und Wirkung in der Kunst von der Renaissance bis zum Barock, ed. Christine Göttler (Emsdetten: Edition Imorde, 1998), 238-51. The sliding cover is attributed to Giulio and Giovanni in Roger Jones and Nicholas Penny, Raphael (New Haven: Yale University Press, 1983): 192.}

secondly, drawings of the Pantheon pronaos before its despoiling (fig. 10.39);\footnote{See Chapter 8.}

and thirdly Giulio Romano’s later decoration of the Sala dei Cavalli in the Palazzo del Tè, Mantua (fig. 10.40). In the last case it is again probably no coincidence that the room’s simulated pilaster order was
derived from the very public pronaos of the Pantheon, for the Sala was the only large and unambiguously public space in the Palazzo and the venue for its balls and banquets. Moreover, even the very idea of simulating marble may have followed antique precedents: Raphael but especially Giovanni da Udine, the man who had supposedly rediscovered how to make a rock-hard and brilliant white stucco by integrating marble-dust, cannot have been unaware of Vitruvius’ statement that “the ancients who first used polished stucco, began by imitating the variety and arrangement of marble inlay.”

Other artists followed suite. Almost contemporaneously Peruzzi, who made meticulous analytical sketches of antique revetment (figs. 10.41-2), frescoed the Sala delle Prospettive at the Agostino Chigi’s suburban villa, the Farnesina (1515-17), with a panoply of marbles, a scheme later mirrored in the Salone of the Palazzo della Valle-de Rustici (c. 1526-34). In Peruzzi’s illusion, this piano nobile salone becomes a richly marbled court with deep loggias of

94 More restrained all’antica revetments are also simulated in the Camera di Ovidio (1527) and the Camera delle Imprese (c. 1527/30). Giulio used real marble, Porta Santa, for the doors in the Camera delle Aquile (1527/28); Amedeo Belluzzi, Palazzo Te a Mantova (Modena: Panini, 1998): 1: 109; 2: 86-91, 112-117, 126, 162-169, 194, 330-335.

95 De Arch. 7.5.1-2 (see Chapter 2). For example, Cesariano: “Imitati sono primamente le varietate de le cruste marmoreae: & le collocatione… cioe como sono quelle variatione de colori che in se hano concretamente quilli marmori che in molti loci sono de opera sectilia ornate le crustatione de li pareti: & pavimenti: & lacunarii plani vel curvi &c.” (Fiore et al., eds., De Architettura, fol. 97r). Previous attempts to imitate marble in sculpture repairs included soaking stucco with soapsuds, and then polishing it once dry. Similar practices might have been used in imitating revetment: Cutolo, Paolo, ed. and trans., Pomponius Gauricus. De Sculptura (Naples: Edizioni scientifiche italiane, 1999), 227-241. De sculptura was first published in 1504.

monolithic africano columns overlooking the brick quarters of medieval Rome (fig. 10.43). Within the epithalamic imagery that dominates much of the Farnesina’s decorations, the faux-materials reference the theme of the Palace of Venus that is repeated in so much classical and neo-Latin poetry, right down to Egidio Gallo’s poem (1511) about Chigi’s own villa. Like some latter-day Caesar, Agostino Chigi looked out upon Rome’s medieval shambles from an aerial dining room, and one that feigned Vitruvius’ most choice typology for dining, the Oecus Cyzicenus (fig. 10.44). After dining here in 1519 with Leo X and twelve cardinals, Chigi descended the stairs to the Loggia of Cupid and Psyche and finally married his long-suffering mistress.

Peruzzi’s exquisitely faked revetment gives life, in fact, to a cultural program announced in the verses of the Suburbanum Augustinii Chisii (1512) by Blosio Palladio. Blosio, a member of the sodality which included Raphael and gathered around Jacob Goritz, was the editor of the latter’s Coryciana. Blosio draws freely on Martial, Statius and Sidonius’ praise of baths to extol the Farnesina but his verses are all the more remarkable and pathetically realistic for acknowledging the despoilment entailed. Realistic only as a fiction, that is, because apart from the stair treads and door frames there was no real marble in the Farnesina:

Oh, should I not speak of you stones? And you marbles strewn throughout,

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You marble stairs, and you marble revetments? 
And should I not sing of you, hot baths, that roll forth diaphanous vapors 
and yourself consist of Parian marble?

Were Barbarian peoples still now trading, 
Then hither Paros, hither Numidia, and hither all those famed in marble, 
Hither all would drag their quarried rocks;

And the porticoes would be thick with columns, and marble would fill 
every room;

Both citrus and cedar beams would breathe upon the ceilings;

Nor would the Barbarian wish his mountains to diminish in trees and 
rocks for any [other] place.

So also, though no ships [now] bring foreign marbles, 
We see these that you have gathered on all sides from far and wide, 
Either dug up from the earth or broken from the ruins of the ancients.

Although the Villa Madama (1519-25) also contains no colored marbles, 
and feigned ones are confined to the niches of the loggia, the building is a mere 
fragment of the projected whole and the original plan was far grander. Had it 
been completed, the villa would have represented Raphael’s most studied 
attempt to recreate a Roman villa in all its authenticity, and a “building in verse” 
(1519) by one of its cultural engineers, Francesco Sperulo, promised that “no part

99 “O, ego vos ne loquar lapides? disiectaque passim / Marmora, marmoreique gradus, de 
marmore crustae? / Vos ne hipocausta canam tenues volventia fumos / Ipsa vel et pario 
constantia marmore? Quod si / Nunc quoque Barbaricae starent commercia gentis: / Huc Paros, 
huc Nomades, et queis data marmore phama est / Convulsas traherent rupes. hinc multa 
Columna / Staret porticibus: densumque per omnia marmor / Atria: Tum citriaque trubes, 
caedoque recisae / Afflarent cameris: neque mallet barbarus usquam / Arboribus saxisque suos 
decrescere montes. / Sic quoque Quum nullae vectent externa carinae, / Marmora conspicimus 
late. quae tu undique cogis / Êruta seu terra, veterum seu fracta ruinis,” ll. 108-121, in Mary 
Quinlan-McGrath, “Blosius Palladius, Suburbanum Augustini Cisii. Introduction, Latin Text, and 
English Translation,” Humanistica Lovaniensia 39 (1990): 122-23. This translation, however, is 
mine. The Suburbanum Augustini Chisii is dated 31 January 1512. Blosio is certainly describing the 
upper floor, for at ll. 124-125 he writes “but we have praised the upper quarters, now let the 
lower not lack theirs” (“At supera extulimus, tanquam non infera laudem / Sint habitura suam”). 

For Blosio Palladio (Biagio Pallai): Domenico Gnoli, “Orti letterari nella Roma di Leone 
Palladio e il cenacolo letterario di Gian Goritz,” Terra sabina 4 (1926): 37-44; Vincenzo De Caprio, 
he edited for Goritz is republished in Jozef Ijsewijn, ed., Coryciana (Rome: Herder, 1997). The case 
for Blosio’s role in the “paternità culturale della villa” is strongly made in Enzo Bentivoglio, “La 
presenza di Baldassare Peruzzi nei lavori della casa di Bosio Palladio,” in Baldassare Peruzzi: 
pittura, scena e architettura nel Cinquecento, ed. Maria Luisa Madonna and Marcello Fagiolo (Roma: 
villa di Blosio Palladio,” in Danesi Squarzina, ed., Roma, 347-55. The marble floor in the Sala delle 
Prospective dates from 1929: Priscilla Graziani Medici, Medici: Marmorari Romani (Vatican: 
Tipografia poliglotta vaticana, 1992): 496.
would be free of foreign marble,” including the Parian, image-bearing variety. In fact, Sperulo reveals that so concerted was this attempt to reconstruct the Roman house that the supposed site of the House of Aemilius Scaurus was being excavated in search of the thirty-eight-foot monolithic columns that he had installed in his own atrium back in 58 BC (see Chapter 1). Scaurus was still the

100 “Now it is necessary to examine the diverse marbles and many columns for so many projected atria, and mosaic floors in contriving varied figures, and the huge roof-beams liberally dripping in gold and truly no part will be lacking in foreign marble” (“diversum inquirere marmor / Nunc opus, et plures ad tot dimensa columnas / Atria, et in varias lusura asarata figuras, / Ingentesque trabes largum quas imbuat aurum / Namque peregrino pars marmore nulla vacabit”), “Lo! Let Libyan marble gleam in the first threshold, let it bear the bronze doors, and adorn the great vestibule, so that it divert those entering with its great spectacle and detain his eyes: and let the spectacle begin already in this place: It was discovered and dug up on the Capitoline hill, and once adorned the home of the Thunderer: let this Synnadic marble [Pavonazzetto] and mottled ophite [serpentino] everywhere add variety to the aspect of the house: let the great atrium rest on these columns that the rough farmer has just unturned (for these too work with the plough) in the gardens of Lucullus, let them be polished for they are cut from the same marble out of which, once split, emerged – oh wonder! – the image of Silenus” (“En libycum in primo niteat quod limine marmor, / Aeratosque ferat postes, et grande figuret / Vestibulum, ut multa subeuntis imagine ludat / Detineatque oculos: iamque hinc miracula surget: / Id capitolino defossum in colle repertum est, / Et quondam ornavit limen sublime tonantis: / Synnadicum hoc variam faciem et maculosus ophites / Reddat ubique domus: his atra magna columnis / quas modo Luculli detexit durus in hortis / Agricola, hi quoque nam curno exercentur aratro, / Nitantur caesae quae sunt ex marmore eodem / Quo scissio, mirum, Sileni emersit imago,” Francesco Sperulo, “Ad R.mum D. Iulium Medicem S.R.E. Presbyterum Cardinalem et Vicecancellarium humiillimus servus Franciscus Sperulus Villam Iulium Medicam versibus fabricata mittit,” in BAV, Vat. Lat. 5812 (1519), fols. 16r, 4v-5. The poem dates to March 1519. The full text is in John Shearman, ed., Raphael in Early Modern Sources: 1483-1602, 2 vols. (New Haven/London: Yale University Press, 2003), 1:414-24 (text, doc. 1519/15); 425-433 (translation); 433-438 (notes).

Literature on the villa is sprawling, but most conveniently, see Christoph L. Frommel et al., Raffaello architetto (Milan: Electa, 1984): 311-56. Frommel, however, misunderstood the verses quoted here to mean that Clement owned an image of Silenus. The true allusion is, of course, to the chance image of a head of Silenus found within a block at the quarries on Paros (Pliny, HN 36.4.14). For Raphael’s intensive study of antique texts (not just Vitruvius) and archaeological investigation: Howard Burns, “Raffaello e’ quell’antiqua architettura,” in Raffaello architetto, ed. Christoph L. Frommel et al. (Milan: Electa, 1984), 381-404, esp. 391-94 on the Villa Madama.

101 “For I now descend to your atrium, Lorenzo, greatest of Dukes, [an atrium] that will be admired for hours on end for its exquisite columns, which even right now are being hunted in the very house of Scaurus, and [which, once found,] I will transport immediately” (“Ad tua iam descendo ducum nunc maxime Laurens, / Atria, perspicuis longum spectanda columnis, / quae scauri domibus nunc exquiruntur in ipsis, / Actutumque veham”: Sperulo, “Ad R.mum D. Iulium,” fol. 11. If this unknown excavation was a real event rather than a poetic conceit, it presumably took place in the Campo Vaccino and was therefore doomed to failure. Augustus had transferred Scaurus’ columns to the Theatre of Marcellus in 17 BC (Asc. Scaur. 23).
man to beat although until now explicitly aping his house had remained a
forbidden apple.\textsuperscript{102}

At the Casino Turini (now Lante; 1520/21-1524/25) Giulio, or Giovanni da
Udine at Giulio’s behest, would “clad” the Salone to cornice level with imitation-
revetment that was partly based on the Pantheon, but probably also other now-
lost revetments, and perhaps even the remains of antique painting itself (fig.
10.45).\textsuperscript{103} All the marbles are clearly recognizable and the will to produce this
imaginary splendor may have been especially fuelled by the supposed history of
the site itself. The Casino was built on antique remains that were so firmly
believed to be the foundations of the Villa of Julius Martialis that the Turini had
Martial’s verses “Hinc totam licet aestimare Romam” (“You can take the measure
of all Rome from here”) inscribed in the Loggia.\textsuperscript{104} It is not altogether
improbable, then, that Martial’s eulogy of the marbles in the Baths of Etruscus
\textit{(Ep. 6.42.8-21; Appendix 2.2)} served as the subtext to the decoration of the Sala in
a villa that enjoyed its own stufetta (now disappeared).

\textsuperscript{102} Polifilo commends the extraordinary opulence of the theatre by remarking that not even
Scaurus had achieved it during his aedileship (“né tale opera M. Scauro fece nella sua aedilitate”),
Poźni and Ciapponi, eds., \textit{Hypnerotomachia}, 1: 342. Scaurus’ temporary theatre had, of course,
supplied the marble columns for his house.

\textsuperscript{103} Henrik Lilius, \textit{Villa Lante al Gianicolo. L’architettura e la decorazione pittorica} (Roma: Bardi, 1981):
reliefs in the Sala were inserted in the early 19\textsuperscript{th} century, but a drawing in Berlin (Kunstbibliothek
Hdz 4151, cod. Destailleur D, fol. 119v) shows that they took the place of faux-rotae, almost
certainly inspired by the revetment of the Pantheon: James F. O’Gorman, “The Villa Lante in
frescoes are remarkably accurate in copying antique revetment.

\textsuperscript{104} Mart. \textit{Ep. 4.64}. David R. Coffin, \textit{The Villa in the Life of Renaissance Rome} (Princeton: Princeton
Baldassare Turini (Villa Lante),” in Frommel and Winner, eds., \textit{Raffaello}, 349-52; Mika Kajava, “La
Villa Lante al Gianicolo e la Villa di Giulio Marziale,” in \textit{Villa Lante al Gianicolo. Storia della
Fabbrica e cronaca degli abitatori}, ed. Tancredi Carunchio and Simo Örmå (Rome: Palombi &
Partner, 2005), 11-18.
As for the exterior of the Roman cinquecento palace, white stucco was the preferred material, but still a fine-grade mixture of lime and marble-dust that was virtually a marble itself.\textsuperscript{105} The only palace in the city to deploy colored marbles externally was the Palazzo Lante (begun c. 1515), whose design is variously attributed to Giuliano da Sangallo and Baccio Bigio.\textsuperscript{106} The palace vaunts a huge portal and string-course friezes in *Porta Santa*, panels below the ground floor windows in the same material, and its courtyard boasts *Cipollino* columns where other palaces only use granites (fig. 10.46). But the palace remains a mysterious anomaly. Giulio Romano did, however, execute a faux-marble attic on the Casino Turini and there must have been other examples.\textsuperscript{107}

When Giulio came to build his own house in Mantua (c. 1540-1544) he eschewed a faux-marble façade in favor of a rusticated surface yet, as Vasari records, it was also “fantastic, all worked up in colored stuccoes.”\textsuperscript{108} This façade


\textsuperscript{107} A drawing by Raffaello da Montelupo (Lille, Musée Wicar, Fonds Wicar 767) specifies that the external attic was “dipinto come di marmi bianchi e misti” and the Vanocci sketchbook in Siena adds “quest’ultimo piano è dipinto come di marmi bianchi e misti” (Siena, Biblioteca Comunale, S. IV. 1).
has yet to be cleaned and investigated but it is quite possible that the rusticated blocks themselves were painted in subtle alternating tints, just as he had them painted in the Cortile della Cavallerizza at the Palazzo Ducale in Mantua (10.41). This latter effect surely imitates the alternation of Istrian and Veronese stone coursing on the Roman amphitheatre in Verona (10.42), whose brand of rustication it also recalls, not to mention the fact that one range of the Cortile is a transparent screen just like the amphitheater’s ruined perimeter. This hypothesis raises the tantalizing possibility that the arcaded frontage of Giulio’s Mantuan home derives from the same model, or a theatre that had been adapted to palatial inhabitation like the Palazzo Savelli (Theatre of Marcellus) in Rome. As for Giovanni da Udine, when he also left Rome to return to his birthplace, in 1534, he built himself a townhouse there in the same year, and he too gave it a façade of faux-marbles, which still survives (fig. 10.47).

**Brick and Marble**

Augustus might have substituted a Rome of brick with one of marble, but some Renaissance artists set out to trump him by metamorphosing one into the

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109 The effect is now more obvious on the later, reconstructed range. Burns has attributed the design (c. 1528-31) of the façade of the Palazzo Canossa in Verona to Giulio: *Giulio Romano*: 510-11. Note also that the illusionistic, rusticated architecture painted on the walls of the Bishop’s villa at Quingentole and attributed to Giulio is also polychrome, with the quoins and pilasters painted ochre and the infill of a dark-stony colour (see Belluzzi’s essay in *Giulio Romano*: 524-25).


other. The unexpected partnership between the two media in fact underlies the material allusions of two icons of late renaissance architecture, the façade of the Palazzo Farnese, Rome, and the courtyard of the Carità, Venice. Bricks themselves also came with an antique pedigree not too far below marble. Various treatises commended the durability, smooth finish and polychromy of antique, brick-built monuments like the exceptional “Temple of Deus Redicolus” near the Via Appia (figs. 10.48-9).\footnote{Known in the Renaissance as the “Temple of Hercules,” and although its true function remains unknown it is commonly held to be the Tomb of Annia Regilla.} Fine brickwork was also visible among the ruins of Ostia, where Sangallo erected the fortress protecting the Tiber against pirate incursions. Like the blocks in stone masonry, bricks were most lauded when their joins were so tight that the wall appeared to be all of one piece.

The Palazzo Farnese façade (figs. 10.50-1) offers a sophisticated display of dichromatic brickwork, whose red-brick, rhomboidal patterns in a cream field seem direct descendants of the Palazzo Ducale, and would in turn influence several other palaces.\footnote{For a technical analysis, with extensive bibliography: Emanuela Montelli, “Note su alcune tecniche costruttive impiegate per l’esecuzione di accurati paramenti laterizi nel cantiere romano cinquecentesco,” Quaderni dell’Istituto di Storia dell’Architettura 32 (1998): 77-96. Montelli adduces precedents in the courtyard of the Palazzo Ducale at Urbino (c. 1472) and the Palazzo Ducale at Gubbio (c. 1476) and other examples include the Villa Giulia (c. 1551-53/54 phase), the Palazzo Mattei Caetani (after 1548), the Palazzo Farnese at Caprarola (1562-68 phase) and the Palazzo Grifoni in Florence (1563-73 phase). For the reception of classical brickwork, see 78-79 and notes.} The brick workers often hailed from the north and the foreman at Palazzo Farnese, Bartolomeo Baronino, came from Casal Monferrato in Piemonte. On the second storey, red-brick lozenges of various dimensions fill the walls between the windows, and in the panels between the string courses some of these meet to form X-patterns. The scale of the patterning’s coordination with the architecture, and the fact that the bricks would necessarily have been sorted by color before laying, preclude any bricklayers’ caprice. The patterning
was, however, abandoned in construction as is clear from its disintegration into “butterfly kisses” on the far right of the palace frontage. The fact that it also breaks off abruptly several feet below Michelangelo’s crowning cornice, at the point where Michelangelo decisively raised the height of the façade, not to mention his apparent aversion to polychromy, all point to the design being the initiative of his predecessor Antonio da Sangallo the Younger, and must therefore have been carried out between 1541 and Michelangelo’s assumption of control in 1546. The diaper patterning on the Palazzo Farnese is far more varied than on any of its followers, and begins to resemble the more variable symmetries of book-matched marbling, and in the tympana of the window aedicules the irregular patterns can only suggest veining.

The Duke Alessandro Farnese basically considered bricks to be a sort of manufactured stone, and sixteenth-century Italian “pietra” could refer to both bricks and stone. Since the marbled sort of brick consisted in mixing different types of earthy matter and then subjecting them to fiery heat to harden the blend,  

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115 Montelli attributes “la mancanza di una corrispondenza esatta [sic] tra la decorazione realizzata nelle due metà del prospetto… a questioni di tipo organizzativo del cantiere e a motivi di carattere compositivo” (Montelli, “Note,” 86). The brickwork was hidden for generations by grime, but also a skim applied to conceal the patterns. Controversy greeted their rediscovery during a radical cleaning campaign of 1999. Christoph Luitpold Frommel found the discovery so upsetting he suggested that they be painted over (pers. comm.).

116 “La pietra è di doi sorti naturale et artificiale qual’è il mattone” (Alessandro Farnese, Commentari di varie regole, e disegni di architettura civile, e militare, con altre istruzioni, e precetti di arte militare, Biblioteca Corsiniana, Rome, 663 (32 B 14), f. 8r, cited in Montelli, “Note,” 77 and note 1). Palladio describes the Carità (see below) as made of “pietra” and “pietra cotta,” Andrea Palladio, I quattro libri dell’Architettura (Venice: Domenico de’ Franceschi, 1570): I, 22.
process and product could not have seemed too far removed from Aristotle’s theory of the generation of stones in the crucible of the earth. Palladio shows a similar attitude in the engaged columns of the courtyard at the Convento della Carità (1561-62); he selected a type of brick whose mixed clay epidermis quite purposefully imitated the blotchy veining of Veronese marble, the material that trims the interior (figs. 10.52-3).\(^\text{117}\) Palladio himself makes no comment on the artifice, but two centuries later Scipione Maffei recognized and admired the conceit.\(^\text{118}\) In England, about the same time that Maffei was writing, this technique was being used to surface a country house grotto (1762-65) at Goldney Hall, Clifton, with floor tiles that looked simultaneously marbly and watery (fig. 10.54), and by the 1780s a French architect would revive, on an industrial scale, the same process of mixing clays explicitly to obtain “les hazards heureux des veines du Marbre.”\(^\text{119}\) 


Palladio’s Carità was one of his most considered attempts to revive the typology of the ancient house, on its most monumental scale because it must serve the communal demands of a populous, modern convent. The most imposing space, the monumental atrium (fig. 10.55), was unfortunately consumed by a seventeenth-century conflagration, but the massive columns that once adorned it were also composed from meticulously cut bricks, which were then covered with a reddish glaze, with the sum effect that they appeared to be of “one entire Piece.” It is therefore legitimate to ask whether Palladio, in resurrecting the “House of the Ancients” in the guise of a convent, sought to rival, as Raphael abortively had thirty years earlier, the first feat of marble use in the ancient house: the columns of Aemilius Scaurus.

It was possible to resurrect the image of palatial magnificence that Scaurus’ house had epitomized, but the resources necessary to provide columns

120 The great fire happened in 1630. The columns were of “Bricks, having first beene formed in a Circular Mould, and then cut before their burning into foure quarters or more, the sides outwards ioyne so closely, and the points concenter so exactly, that the Pillars appeare one entire Peece” Henry Wotton, The Elements of Architecture (London: John Bill, 1624): 44.
of this magnitude, and the vehicles needed to convey and raise them, had as yet
to be fully revived. Palladio’s technical coup made a virtue of necessity and in the
process, as the English Ambassador to Venice enthused, demonstrated “how in
truth wee want rather Art then stuffe, to satisfie our greatest Fancies.”121

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121 Wotton, *Elements*: 44.
Chapter 11

Painting in Stone: From Gems to Cloud-architecture. Reinventing Marbling in Baroque Rome

As the marbling of church interiors in *marmi mischi* was revived in the sixteenth century, and became widespread in the seventeenth, the appreciation of how they could reflect an upper heaven and a larger universe underwent a staged transformation. The perceptions of marble’s physical substance and its analogies with painting induced artists slowly to discard the intarsiated, gemmological and talismanic symbolism of papal chapels like the Cappella Gregoriana. Instead, Bernini and others would exploit its potential as a fluidic medium to represent and embody an otherworldly cloud-architecture in works like S. Andrea al Quirinale. In this process, through “divine intervention” so to speak, the new “painted architecture” became a convenient loop-hole in the paragone, the age-old debate over the relative merits of painting and sculpture, and their respective mimetic properties.

Beginnings

In Rome it is not until 1578 that we witness the full-fledged revival of marble revetment on a scale to revival antiquity, in Giacomo Della Porta’s Cappella Gregoriana in St. Peter’s. The idea of producing colored marble chapels had been in the air since the 1550s, when Giorgio Vasari produced a design for the Cappella Del Monte in S. Pietro in Montorio, in which colored marbles were to have surrounded the projected wall tomb but the chapel was not executed in
this form. In 1560s there was a scattered acceleration of interest in the medium. In the early 1560s the Farnese had Vignola design some rich fireplaces, and tabletops, of varied marbles in their palace. In 1565 Cardinal Francesco Gonzaga added columns of verde antico to the old Arco di Portogallo on the Via del Corso. And in 1566, Pirro Ligorio’s tomb of Paul IV in S. Maria sopra Minerva employed colored marble columns, dados and sarcophagus against a colored marble wall while the central niche also housed a polychrome figure of the pope (by Giacomo Cassignola) against a background intarsiated with multicolored peltae (fig. 11.1). This tomb was, in turn, plainly the inspiration for the still more impressive sepulcher that Pius V erected to himself, in 1567-71, but never used, in a vast new church in his hometown, Bosco Marengo, near Alessandria in Piedmont (Appendix 11.1; fig. 11.2). Unfortunately, the architect is unknown, and no name suggests itself, although both Vasari and Vignola were active in some capacity in the church’s design.


3 “Il socio Lanciani parla di un documento del 23 luglio 1565 relativo alla translazione di due colonne di verde dalla chiesa dei SS. Quattro al Celio, fatta dal Card. Francesco Gonzaga per completare con esse la fronte nord dell’arco detto di Portogallo”: Rendiconti della Reale Accademia dei Lincei, 1896: 276. To my knowledge this document has never been published.


Outside Rome, a few other projects also offer a prelude to the Roman series that begins with the Cappella Gregoriana, and presumably offered models for emulation and competition. The earliest, which has so far escaped attention, is the Cavalcanti Chapel (1560-62) in Santo Spirito, Florence (fig. 11.3), clad in a variety of marbles, which the chapel inscriptions bragged had arrived from as far afield as “Egypt and England.” Again the designer is unknown. In Florence, the Cavalcanti Chapel remained as much of an anomaly as Raphael’s Chigi Chapel did in Rome, and it was not until the return of the architect Giovanni Antonio Dosio from this city, in 1576, that the new art form began to take flight. Dosio had gone to Rome in 1548 to carve funerary sculpture, sketch the ruins and, eventually, develop a sideline in designing marble inlay tabletops. It is equally important that among the modern works he studied and measured was

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7 Attrib. to the sculptor Montorsoli in Morrogh, “Vasari,” 315; Andrew Morrogh, Disegni di architetti fiorentini, 1540-1640 (Florence: Leo S. Olschki, 1985): 88, cat. no. 35. Pilliod entertains Bronzino or the patron. Alessandro Allori supervised payments in the chapel but does not claim its design in his Ricordi, although it did influence his later design of the Cappella Antella (1600), also in SS. Annunziata.

While in Rome Dosio had also acted to procure antiquities for the Florentine Niccolò Gaddi, and once at home he was commissioned to design the nobleman’s funerary chapel in S. Maria Novella (1575-76). The new chapel (fig. 11.4) displayed the best antique marbles available (porphyry, africano, portasanta) in large slabs divided by only narrow frames, albeit subordinated to a traditionally Florentine pietra serena framework. Dosio’s chapel is also the first for which colored design drawings survive. The Florentines were so impressed that they apparently forgot about the earlier Cavalcanti Chapel and the poet Antonfrancesco Grazzini (Il Lasca) wrote that now Rome and Venice would have to be patient and yield precedence to Florence in such beauty and splendor. Dosio’s chapel initiated a long sequence of colored marble chapels and altars in Florence, the most opulent (and gaudy) of them the Cappella dei Principi at S. Lorenzo, which had been planned by Vasari.

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9 Dosio drew a view into chapel (Uffizi 166 A) and a dimensioned sketch elevation of one of its pyramids (Uffizi 3204 A v).


12 Raniero Gnoli and Attilia Sironi, eds., Agostino Del Riccio. Istoria delle pietre (Turin: Umberto Allemandi, 1996), 164 (f. 79r): “si puote dir con verità, che egli fusse il primo a far si belle memorie nella città, come anco è stato il primo nella sua città a far la cappella onoratissima di varie pietre misti e belle come s’è detto.” Del Riccio’s Ms. dates from 1597.

in 1561/8, but which was not begun until the late 1580s, and then to a decorative program dictated by Francesco I and Ferdinando I Medici.\textsuperscript{14}

The Cappella Gregoriana (1578-80)

The Cappella Gregoriana was the first chapel to be outfitted in the new St. Peter’s, even though the nave still awaited construction. The chapel’s foundations had been dug in 1571, but the marbling was not executed until 1578-80.\textsuperscript{15} This pile was to be the mausoleum of Gregory XIII and must convey a commensurate magnificence (\textit{fig. 11.5}).\textsuperscript{16} But just as importantly the Cappella Gregoriana was also to house the miraculous, twelfth-century image of the “Madonna del Soccorso” (\textit{fig. 11.6}) above its altar and the body of the Greek Doctor St. Gregory Nazianzenus below it. Since Raphael’s Chigi Chapel was the only new marble chapel in the city it inevitably provided the cues for the Cappella Gregoriana, though both chapels looked back to the architecture of


\textsuperscript{15} Flaminio Vacca, Memorie di varie antichità trovate in diversi luoghi della città di Roma… nell’anno 1594 (Rome: G. Zenobi, 1704): 16, 39; Rodolfo Lanciani, Storia degli scavi di Roma, 5 vols. (Rome: Quasar, 1902-12): 4: 54-59. For a chronology of works 1571-1585, tabulating previously published documents alongside new ones: John J. Marciari, “Girolamo Muziano and Art in Rome, circa 1550-1600” (PhD, Yale, 2000), 428-33; Federico Bellini, “La costruzione della Cappella Gregoriana in San Pietro, di Giacomo della Porta: cronologia, protagonisti e significato iconologico,” in Architettura: processualità e trasformazione, ed. Maurizio Caperna and Gianfranco Spagnesi (Rome: Bonsignori, 2002), 333-46. The marbling is normally, and erroneously, said to date to 1573, which would make it predate the Florentine chapels here listed. In 1584, the four granite columns of the monumental aedicules were substituted in \textit{africano}. There is no evidence to support the claim that this cladding was based on lost designs by Vasari: Morrogh, “Vasari,” 319-20.

\textsuperscript{16} E.g. Baglione commented that Gregory XIII completed the Vatican Sala Regia with a “superba incrostatura di misti e compartitura rarissima di pavimento, lavoro convenevole a magnificenza di Palagio Papale”: Giovanni Baglione, \textit{Le vite de’ pittori, scvltori, et architetti, dal Pontificato di Gregorio XIII del 1572, in fino a tempi di Papa Urbano Ottavo nel 1642} (Rome: Andrea Fei, 1642): 5.
early Christianity, East and West. Thus, the Cappella Gregoriana sports columns that were true relics of the old basilica and its vaults were the first in St. Peter’s to receive mosaic. Gated on both its open sides and occupying the corner of a cavernous, stucco-and-travertine basilica rising from a brick floor, with none of the gilding nor extravagant marbling the basilica would receive over the next two centuries, and no plans as yet to execute them, the materials of the Cappella Gregoriana made it an archaizing mausoleum and oasis of color.

As if to acknowledge the fact that this late Cinquecento marble revival looked back to Christian antiquity, the Cappella Gregoriana and the papal chapels that followed it became not only the subject of renewed ekphrasis, but the symbolism and physical nature of their marbles became once more the topic of trattatistic writing, whether biblical exegesis or natural history. Ekphrasis, in prose and verse, found a new lease of life in the compositions on the Cappella Gregoriana by the Jesuits Ascanio Valentino and Lorenzo Frizolio. Valentino in particular sought to demonstrate that “this very hallowed chapel [was] a structure of admirable symmetry, singular arrangement, which could be compared with ancient works.” Like the ekphrasists of Byzantium, he marveled at the variegation of the revetment, attempted to provenance each slab and column with its correct geographical origin, and employed the technical

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17 “The twin columns of the holy altar, which is built on the right wall of the chapel, were supplied from the demolition of the antique church, and which for that reason they intentionally did not take them away” (“Sacrae arae, quae ad Sacelli dexteram exstructa est, binae Columnae ex antiqui templi demolitione adiectae sunt, quas eo consilio non amoverunt”): Ascanius Valentinus, Sacelli Gregoriani descriptio (Florence: B. Sermartellius, 1583): 12 (ll. 146-50).

18 Valentinus, Sacelli Gregoriani descriptio; Laurentius Frizolius, Sacellum Gregorianum (Rome: Dominicus Basa, 1582).

19 “Sacellum igitur hoc augustiss(imum) symmetria admirabile, dispositione singulare, structura cum antquis comparandum”: Valentinus, Sacelli Gregoriani descriptio: 36 (ll. 648-50).
vocabulary of antique literature, including Plinian and Vitruvian Graecisms. The text may well have been read at the chapel’s dedication as the author speaks of the need to educate “those present.”

His detailed information (especially the numerous dimensions) plainly came from official sources, perhaps Della Porta himself.

Like Paul the Silentiary a millennium before him (see Chapter 4), Valentino also describes the geological images the stones present as microcosms of a larger creation infused with divine artistry. The Cappella Gregoriana was, in fact, contemporary with the same pope’s institution of a mineralogical museum in the Vatican Palace under the direction of papal physician, Michele Mercati (fig. 11.7). In this gallery of nature, minerals were sorted in cupboards or cabinets and the latter look very much like altars themselves (fig. 11.8).

However, for all its enshrinement of categorization, Mercati’s museum still followed the Aristotelian division of minerals into “fusibles” and “excavatables”, that is ductile or carvable minerals. Modern geological classifications remained unformulated, and stones still seemed to owe their color and veining to a varying cocktail of air, earth, moisture and colored ores. It was the mottled and veined

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20 “I have described the Gregorian Chapel, from the work itself, as it stands, so that those present who could not understand the thing which they have before their eyes may now admire your singular piety and greatness of spirit” (“Gregorianum Sacellum, ex ipso opere, ut exstat, descripsi, ut qui praesentes intueri non poterunt, rem ubiq(ue) ante oculos habeant, unde omnes singularem tuam pietatem, & animi magnitudinem admirentur”): Valentinus, Sacelli Gregoriani descriptio: 3.

marbles, the so-called *marmi mischi*,\(^2^2\) that best seemed to confirm antique doctrine that all marbles were congelations of terrestrial exhalations, replenishing themselves in the core of an earth constantly channeled by generative streams.\(^2^3\) Analogously, Valentino itemizes the marbles of the Cappella Gregoriana as here more earthy, there more aqueous, and alternately describes their veining as mountain peaks poking through cloud, or clotted masses traversed by snowy rivulets. It is a language that sometimes evokes modern satellite photography, but at heart one that regards the stone as being only in a temporary stasis before it will dissemble and return to its elemental origins:

Observing the Amethyst the mind is seized by the thought of some river; whose meager stream, issuing from the mountains’ peaks, flows twisting and turning down through harsh lands, then bursts forth more fully, like waves crashing, swelling into a torrent that furiously dashes against the rocks, leaping out and crashing, almost rising up, this river reaches and washes against towns, whose *idols* are submitted to the eyes [...] everywhere on the stylobates of all the parts triple slabs of the most beautiful alabaster have been fixed: in which it is possible to observe with the greatest delight, once the mind has perceived them, here the image of water, there the


\(^2^3\) Cesariano (1521) cites Pliny (*HN* 36.24.125) that marbles regenerate themselves, adding “but now not only in these places but also throughout Italy, and in other places that are far distant, other new quarries of brilliant marbles, some hard some soft, engendered in various regions. But still others are found to be produced by the various mixtures of stones and mottled with various confusion, complex and painted by nature like something mixed together in a balanced amd tempered congelation.” (“Ma adesso non solum intali loci ma per Italia, et in altri asai externi, sono aparso altre nove lapidicine di candidi marmori e chi più duri e chi più molli procreati in varie regione. Ma ancora sono trovate de varie mixtione de pietre e di varia confusione maculate, complexe e pincte da la natura como cosa infarcita in una coequale e temperate congelatione”): Francesco Paolo Fiore et al., eds., *De Architettura, Vitruvio traslato, commentato e affigurato da Caesare Caesariano* (Milan: Il Polifilo, 1981), Lib. II, fol. 37v. Here (fol. 38r) Cesariano also cites an anecdote in Aristotle (*Mirab.* 52), that vessels and men trapped in the mines around Pergamum were found petrified after being filled with some liquid and Pseudo-Aristotle (but really Avicenna) that animals and plans can be petrified by a “lapidifying virtue”.
image of earth: and indeed it is as if [one beheld] water flowing down from steep mountain heights, and then opposed by the obstacle of the rocks is bent into a second course, the streams overwhelmed by the billowing; now to irrigate the cultivated soil, now flowing together into one place, loosening a mass of stones loosened and dispersing the earth: on the other slab [one discerns] mountains, just as they are separated from each other by an equal spacing, stretching out to hills lying near to each other, some of which appear broader in width, others narrower, because of the modulations of their summits. 

Valentino also interpreted this perceived physical mixture in symbolic terms. In his eyes the meandering stream (fig. 11.9) within the altar’s “Amethyst” slab was a force for the good, because it could swell into a raging torrent that might destroy pagan towns and their idols. Valentino even wrote idols in Greek (εἰδωλα) to draw special attention to the word. The subtext, which requires some prompting now, lies in the distinction that the church Fathers drew between idols, which are carved and therefore require the hand of man, and images naturally figured in the living rock, which do not, and are therefore sanctioned by the Almighty. This may also have been the partial intention of the architect, for the wall revetment of the Cappella Gregoriana is conspicuous in its avoidance of the elaborate inlays that distinguished the design of costly tabletops from the 1550s on. The same, unspoken motivation presumably underlay the strictly

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24 “Amethysti inspectione mentem subit cogitatio fluivi cuiusdam; qui e montium finibus emissus vario flexu per aspera tenuis profuit, tum irruptens uberior, quasi undis concursantibus, tunc in fluctus, atque impetu illius ad scopulos exsilientem excitat, alluitque; oppida, quorum εἰδωλα oculis subiicuntur […] undequa(ue) in stylobatis ex alabastrite omnium pulcherrimo adpositae crustae terna: in quarum altera aquae, altera terrae [p. 32] speciem, animo conceptam, summa iocunditate licet intueri: Atq(ue) e montium quasi iugis manantem aquam in proclive rapi, tum rupium objectu aversam inflecti secundo cursu, rivos fluctibus operiri; mo do subactam humum irrigare; modo in locum unum conflueret, lapidum mole disiungi, atq(ue) terra tota diffundi: Altera crusta montes, veluti aequabili inter se spatiorum discreti, procumbunt in colles sibi subiectos, quorum nonnulli proceritate ampliores sunt, angustiores alii ob cacuminum flexiones apparent”: Valentinus, Sacelli Gregoriani descriptio: 31-32 (ll. 533-42, 47-62).
aniconic decorations of the slightly later palace chapel in the Castello at Ferrara, the so-called Cappella di Renata di Francia (1590-91; fig. 11.10).  

**Providential Images and Nature the Artist**

The reason that Valentino could draw such ethical conclusions from the images he perceived in the slabs of the Cappella Gregoriana was the religious investment in any such images being heaven-sent. When Aldrovandi wrote his *Musaeum metallicum* in the 1580s, he devoted an entire chapter to marbles, which he concludes with marbles grouped according to what they represent: “anthropomorphic,” “dog-like,” “shell-like,” “fish-like” even “Mackerel-like” marbles (fig. 11.11). The classical names of marbles had been long forgotten and when marbles did acquire new names during the Middle Ages, they had regularly derived from their mimetic propensities. Brocatello resembled brocade,

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Lumachella shells, Greco scritto antico cursive Greek texts, and so on.\textsuperscript{28} Even though Aldrovandi’s mimetic marbles were obviously fossils, he persisted in regarding them as natural artifacts. Other images arose out of marble veining and if since patterns were also naturally “painted,” they pointed to an artist outside the human realm, to Natura Pictrix; and thence, through the analogy with the Acheiropoieton to the Artifex Divinus Himself. Seventeenth-century naturalists like Colonna and Stentone would eventually contest the view that fossils were any kind of art form, but when Athanasius Kircher published his Mundus Subterraneus in 1664, his argument hardly differed from Aldrovandi’s and several of his plates were, in fact, identical. This was neither an exclusively Italian phenomenon nor was Kircher the last to make such observations. Throughout the eighteenth century a series of observers, many north of the Alps, published notices on recently unearthed “figured stones.” The Academia Naturae Curiosorum in Leipzig published a series of papers on the subject from the 1670s through to the middle of the eighteenth century.\textsuperscript{29} In 1708, for example, when Carl Lange published his Historia lapidum, the product of pan-European


correspondence, he still explained the generation of minerals in terms of terrestrial liquors and, like Aldrovandi, regarded fossils as “lapides picti.”

While scholars like Aldrovandi considered figured stones curiosities, bizzarrie and scherzi di natura, for others the “image made by chance” meant the “image made by Providence.” To Kircher these prodigies were keyholes into the divine mind. These images were, he said, “made properly by Nature... because the Operation of Nature always depends on the concourse of all things by provident cause” and “if the phenomena of Nature are consequential, then they must be anticipated by cause, reflections of the Divine archetype modified by the laws of Nature.” This was also loosely the opinion of a public predisposed to see freak images as pregnant with ominous foreboding. Thus, when the felling of an old apple tree near Harlem in 1628 revealed the image of a friar (fig. 11.12), the urbane Rubens found both the correct precedent in Pliny and recorded that the neighboring Dutch feared this image portended a return to Catholic subjugation. Guidebooks well into the eighteenth century also continued to

30 Carl Nicolaus Lange, Historia lapidum figuratorum Helvetiae: ejusque viciniae, in qua non sol*m enarrantur omnia eorum genera, species et vires aeneisque tabulis repraesentantur (Venice: Jacopo Tomasini, 1708).

31 “dictae imagines, qualescunque tandem illae sint, a Natura proprie fieri, iuxta secundum, tertium, dicantur aut quartum modos paulo ante expositos; quia tamen Naturae operatio semper dependet a concursu causae providentis omnium, ita quoque si huiusmodi Naturae phasmata notabiles sequantur eventus, eos in causis suis iam praevisos esse, iuxta Divini archetypi incommutabiles rationes legibus Naturae connexas”: Athanasius Kircher, Mundus subterraneus, in XII. libros digestus, quo divinum subterrestris mundi opificium... universae denique naturae majestas et divitiæ summa rerum varietate expomuntur, etc. (Amsterdam: Joannes Janssonius a Waesberge & vidua Elizaei Weyerstraet, 1665): Tom. II, Lib. VIII, 48.

32 “You will probably also have seen the engraving representing the shapes observed in the section of a sawn tree, and which bear some resemblance to nuns and monk with two violins. The people marvel at this as a great phenomenon, and as a certain omen that that country... will have to turn back to the Catholic faith. [...] In my opinion, one may recall what Pliny said of the tables of lemon-wood: vitium ligni in nodos et maculas a natura feliciter torti potius quam infelicit ["a defect in the knots and veins of wood which is twisted happily, rather than unhappily, by nature"], letter to Pierre Dupuy, March 23, 1628: Ruth Saunders Magurn, ed., The Letters of Peter Paul Rubens (Cambridge MA: Harvard University Press, 1955), 247. The best English equivalent to
note, and occasionally depict, the various monks and Madonnas apparently encoded in church marbles (fig. 11.13) and one Frenchman could claim, for example, to discern a praying friar in the apse of St. Peter’s, where no such image is even remotely identifiable today.33

Furthermore, if fossils were not the fingerprints of original Creation, they must be the products of Nature’s ongoing creativity. In fact, Nature was continuously updating herself. Thus, when the Venetian Michele Lazzari wrote a short treatise, as late as 1753, about the only Agate he owned he could identify it as “a Bavarian Duke” with some certainty (Appendix 11.8). He argued, in fact, that Nature could only have generated the stone portrait very recently because the ancients did not have moustaches and goatees, nor wear Lace collars and the Toison d’or. The same logic led Lazzari to remark that while the ancients had seen Pans and Apollos in tree-roots and gems, today everybody unearthed Christs and Madonnas.

“God fills the heavens and the earth,” Lazzari says quoting Jeremiah, and if God had written the book of nature then Nature would occasionally write His praises too. Thus, in 1665, Peter Lambeck read the “acheiropoetic” letters on a patera of oriental agate in Vienna as spelling B. XRISTO R. S. XXX, from which he was able to extrapolate BEATORI ORBIS CHRISTO, REGI SEMPITERNO, TRI-
UNO CRUCIFIXO ("To The Blesser of The World, Christ, The Everlasting King, The Tri-Unine Crucified One"). Lambeck was apparently unmoved by the fact that in a vessel of Egyptian or Indian origin and possibly Greek manufacture, Nature had chosen to express herself in Latin.

However, it is normally the unlettered that first discover nature’s secrets in the realm of untamed nature, and their innocence guaranteed the vision’s authenticity. Thus, Alonso de Ovalle’s *History of Chile and its missions* (1646) reported several images instrumental in Jesuit conversions. They included an apparition of the Virgin on a cliff face (fig. 11.14) and a miraculous tree in the

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35 "Il medesimo sasso col vario color delle sue vene forma la negra capellatura cadente dalla testa per il collo fino alle spalle: il volto bianco di profilo molto ben proportionato: la veste di color rosaccio, il manto di color giallo in oro, e la fodera del manto di color azurro, con soma propzione, e leggiadria. / havevano molti anni addietro gli habitatori di questo luogo veduta questa Imagine, non vi havevano però badato tanto, ma 8 or 10 anni fa, stando, un fanciullo Indiano insieme con la sua madre presso di questo sasso, vi fissò a caso lo sguardo, e riconosendo la sacra Imagine, disse tosto gridando a sua madre; vedi che leggiadra Signora stà ivi, con un Bambino nelle braccia? Si appressa l’Indiana, e restando ammirata di tanta beltà, publicò da per tutto ciò che haveva veduto. Inteso questo successo I PP. Della Compagnia, che s’impiegavano nelle missioni d’Arauco trasferitisi tosto a quel luogo per accertarsi del prodigio ne restano oltre modo maravigliati, & havendo fatto sboscare il luogo, che stava tutto intricciato di bronchi, e di macchie, li paesani pieni di giubilo, & allegrezza promisero di fabricare una Chiesa per riconoscimento di tanto favore, che lor faceva la Regina de’Cieli, la quale continuò le sue gratie, liberando, e preservando da un contagio, che affligeva quel paese la donna, che primieramente discoverse quella Imagine, con haver bevuto un poco di polvere stritolata da quel sasso: onde sempre sana, & illesa potè impiegarsi a servire gli altri, appestati […]." (he compares it to a similar image in discovered in Tenerife). According to D’Ovaglie, who was himself Chilean, the image appeared in "un sasso di una canna, e mezzo in circa d’altezza, incavato in forma di una nicchia": Alonso D’Ovaglie, *Historica Relatione del Regno di Cile, e delle missioni, e ministerii che si esercita in quelle la Compagnia di Giesu* (Rome: Francesco Cavalli, 1646): Lib. VII, cap. XX, pp. 329-30. This is the Italian edition of Alonso De Ovalle, *Historica Relacion del Reyno de Chile, y delas missiones, y ministerios que exercita en el la Compagnia de Iesus* (Rome: Francesco Cavalli, 1646). The passage is paraphrased in Kircher, *Mundus subterraneus*: Tom. II, Lib. VIII, 48.
form of the crucified Christ (fig. 11.15). These images converted the natives by their guileless veracity, but were proofs of divine favor for Jesuit activity in Chile. The same holds for similar prodigies nearer home. On 2 August 1660, a certain Peter Bücher supposedly found a miraculous Virgin and Child engraved in stone in the iron-mines of the canton of Uri (fig. 11.16). The local noble Konrad von Sonnenberg, immediately wrote a tract pronouncing it the city’s “palladium” and had the stone set up on the high altar of the Capuchin church of Gotteswald in the woodlands overlooking Lucerne. The timing and imagery of the find was, however, suspicious. The Virgin stands on a crescent moon at the vortex of a brilliant spiraling Sun, the typical iconography of the Immacolata and von Sonnenberg’s book was published in 1661, the year that Alexander VII issued a Bull ratifying the doctrine of the Immaculate Conception. The implication, perhaps intended by von Sonnenberg, was that the stone was a Swiss portent for the success of the Immaculists’ cause.

Quite a few stones like von Sonnenberg’s had been brought in from the wilds, framed, and set up on altars. Aldrovandi, Kircher and others mention several in churches all over Italy and Europe. Some required special framing to

36 D’Ovaglie, Historica Relatione: Lib. I, cap. XXIII, 59-61. “Monsignor Vescovo di San Giacomo...restò maravigliato, e consolato di vedere un tanto grande, e nuovo argomento della nostra fede, che cominciando in quel nuovo mondo a metter le sue radici, vuole l’autore della natura, che quelle de’medesimi alberi, germogliano, e diano testimonianza di quella, non già con geroglifici, ma con la vera rappresentazione della morte, e passione del nostro Redentore, che fu l’unico, & efficace rimedio, con la quale essa si piantò.” (60).

37 Konrad von Sonnenberg, Vera & syncera Relatio, recenter inventi LAPIDIS Miraculosi, ipsa Die 25. Augusti Anno Dominice Incarnationis 1660 in ferrifodinis montium Cantonis Vraniensis: Potentis Helvetiae: in quo Effigies IESV ET MARIAE Circumdata fulgentissimo Sole omnium Admiratio conspicuous, Neque invenire est Artificem, qui simile quid, in eiusmodi specie LAPIDIS, effingere attentet. Asservatur Summa cum Devotione in loco Miraculosi, vulgò SYLVA DEI Dicto ditionis Lucernensis (Lucerne: 1661) (copy in BAV, Chigi V. 2349, int. 8, cc. 151r-159v). For the Sonnenberg family (though Konrad is not named) see the Historische-Biographisches Lexikon der Schweiz, Band 6, Neuenburg 1931, pp. 447-448 (kind reference of Kaspar Zollikofer). My thanks to Dr. Heinz Horat, Amt für Denkmalpflege und Archäologie des Kantons Zug, for informing me that no such stone can be presently found in the church at Hergiswald. The engraved image of the stone was produced by Johann Melchior Schindler.
enhance their images, and some were even used liturgically, like this very rare panel of africano which was transformed into a Pace, the utensil ritually offered to the communicant to kiss just before the Communion (figs. 11.17). The verso of this Medici donation (c. 1515/20?) to S. Maria in Aracoeli, Rome, and illustrating Augustus’s apocryphal vision on the spot, declares: “It is not the earth that has given this [stone], more precious than a gem, but God Almighty sent it from the Highest Heaven. As the prophets, seers and holy Sibyls sing, the image of the Virgin is revealed in this small marble.”

Astral rays could not only arouse the potentialities of gems and marbles, but were capable of infusing them with images as well, and this made them particularly worthy of the House of the Lord. A good example of the desired dualism of marbles as gems and marbles as image-bearers is at Albi in South-eastern France. Outside the old gothic cathedral resembles a brick submarine but inside, in 1509-14 or c. 1513-1520, a team of Lombard-Emilian painters under the direction of Giovanni Francesco Donella covered the walls with a lattice of faux-marbles to invoke the jeweled heaven, but everywhere the stones now figure images (figs. 11.19-20).

**Heaven on Earth and Marbles as Gems**

In the popes’ capacity as latter-day Solomons, the biblical king’s splendor could still open the door to any extravagance and thus other contemporaries

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compared the new chapel to the old Temple. Other texts, well into the 1620s, justify the augmented opulence of the new marbled chapels in terms of the millennial tradition that the Church must be a heaven upon earth. As one orator declaimed in the Cappella Paolina (fig. 11.21) in 1613,

whosoever observes the marbles, porphyries, the jaspers, the golds, the silvers, the crystals, the colors... of this place, will easily recall that which St. John says in the Apocalypse when he describes the City of Paradise: “and when the city was pure gold, like unto clear glass, clear as crystal; the building of the wall of it was Jasper, (and) of all manner of precious stones”

40 “de sacello quid dico? aeditior pars emblemate vermiculato, & tesserulis pulchre compositis distincta, media autem pars longe lateque ad pavimentum usque Graeci atque Aphricani marmoris, quod imitetur Pyropum aut flammam, facile dicunt, dum tacent, Ierosolitanum templum aequari hic, atque adeo (si tantulum cum tato, tam angustum cum tam augusto conferatur) superari. imperfectus est opus adhuc, sec, ut mireris splendorem, quae est confirmata pars, nonaginta millibus aureorum confecta est”: Robert Turner, Panegyrici duo, de diobus triumphis clarissimis, illo Romae in translatione Gregorij Nazianzeni; hoc Leodij in inauguratione Ernesti Ducis Baaruriae, & Electoris Colonienis; inunbrati ad formam antiquorum partim declamatorum, partim panegyricum. Eiusdem Orationes xvi. et tres commentationes in loca scripturae, expressae ad imitationem antiquorum ecclesiae doctrorum. Additae sunt eiusdem epistolae (Ingolstadt: Ex typographia Adami Sartorii., 1599): 61 (originally published 1583); cited in Marciari, “Girolamo Muziano”, 441. Turner’s description of fire-coloured, bronze-like marble is borrowed from Ovid’s Palace of the Sun: Met. 2.1-4.


These sentiments were voiced the length and breadth of Europe, under the lingering influence of seminal texts like Durandus’ thirteenth-century *Rationale Divinorum Officiorum* and the medieval monuments themselves. Thus, while the intarsiated pilasters of the Cappella Sistina (1585) are heraldic and pontifical pennants (11.21b), on a quite literal level their stratified paneling aspired to the jewel-encrusted walls of the Apocalyptic Jerusalem depicted for the first time on the proscenium arch of the same church (fig. 3.6). In this case, as Ostrow points out, the material tradition also endured because the stones *in se* were the spolia of paleo-Christian buildings, like the Oratory of the Holy Cross next to St. John Lateran that Sixtus V had demolished (figs. 3.2-3), and so became physical relics in the Sistine re-presentation of Rome as a Christian capital.

The tradition of identifying marbles with gems, which made the celestial metaphor possible, also showed no signs of flagging. Ulisse Aldrovandi, Andrea Bacci, Alonso Chácon, Michele Mercati, Agostino del Riccio and François la Rue (all of whom wrote treatises on marbles in the 1570s and 80s) resumed the long tradition of identifying marbles with gems.

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42 E.g. György Széless (1761), chaplain of the castle at Esztergom, Hungary, on the Bakócz Chapel in St. Adalbert’s Cathedral: “the wall itself was constructed from squared blocks... the continuation of the work in marble, the overlaying of the original, smothered and concealed its value. The later marble stones were intended to transform the glory of the original; into an even greater glory of God. For they had learned: the valuable stones laid upon the squared stones of heavenly Jerusalem conferred greater honour upon them,” in Pál Lövei, “Virtus, es, marmor, scripta. ’Red Marble and Bronze Letters,” *Acta Historiae Artium* 42, no. 1-4 (2001): 40.

43 Steven F. Ostrow, “Marble Revetment in Late Sixteenth Century Roman Chapels,” in *IL 60: Essays Honoring Irving Lavin on his Sixtieth Birthday*, ed. Marilyn Aronberg Lavin and Irving Lavin (New York: Italica Press, 1990), 253-56. It may be added that the pilaster pattern in the Cappella Sistina is copied directly from the *crux gemmata* motif that decorated the piers of the Holy Cross Chapel.
textual tradition detailing the thaumaturgic powers of precious stones spanning from Pliny to Camillo Leonardi and Lodovico Dolce.44 Men like Bacci quite explicitly quoted the Hermetic texts on the astral influence and sympathetic attractions of stones, to explain that gems and marbles bore a common soul. They were, as Bacci says, “the noblest and purged materials from the bowels of the earth, where the rays of sun and stars fuse to excite their potentialities and generate the most perfect things of celestial form, and consequently wonderful effect.”45 Like plants, “the great power of precious stones, if they have been cut at
Chapter 11: From Gems to Clouds

the proper hour and season, comes from the heavens... thus they are more lively and vigorous and the countenance of the stars shines forth in them more distinctly."^{46}

The New Marble Chapels of Rome

The Cappella Gregoriana introduced a succession of Papal funerary chapels that imitated or vied with its polychrome skin: the Cappella Sistina (marbling 1585-98) and Cappella Paolina (marbling 1605), both in S. Maria Maggiore, and the Cappella Clementina (marbling 1597), in St. Peter’s.^{47} In the same period, we witness Giacomo della Porta’s reveting of the transept of St. John in Lateran (1597-1601).

Over the next three hundred years these chapels, in their turn, would set the standard for innumerable patrician chapels, and then whole churches, throughout the city. Already under Gregory XIII (1572-85) demand for colored marble increased so dramatically that a series of proclamations was issued specifically prohibiting the excavation of stones for architectural use.^{48} So decisive was the outcome that, by the century’s close, agents were writing to out-

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of-town painters to apprise them of the new requirements. “According to the present custom of almost all the architects here in Rome,” altars must be ornamented with at least “four columns of the finest marble, and other refinements in alabaster and other highly prized stones, so that as many honors as possible will be paid to the altar.” Marbles began to receive honorable mention in pastoral visits and gradually whole chapels were outfitted with them.

The process of re-marbling Rome was more gradual than the material’s present ubiquity suggests, and religious communities might begin the century openly hostile to a material they considered too flashy but finish it basking in its light. A good example Thus, in 1625 the Franciscans of S. Isidoro prohibited marble use in their new church (except for the high altar) forcing prospective patrons to content themselves with gilded plaster. They were doubtless keen to forestall any charge of worldliness at the very moment in which their neighbors and rivals, the Capuchins of S. Maria della Concezione, were very publicly obstructing the papal introduction of marbles into their own church.

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49 “L’ornamento dell’altare sarà, secondi si costuma qui in Roma di presente da quasi tutti gli architetti, con quattro colonne di finissimo marmo con altri finimenti di alabastri e altre pietre di molta stima, si che non si mancherà di fare all’ancona tutti quelli honorî che si potrà”: Letter from Girolamo Bernieri da Correggio to Lavinia Fontana, 12th May 1599, cited in Romeo Galli, Lavinia Fontana: pittrice, 1552-1614 (Imola: Paolo Galeati, 1940): 82-85.


by the 1660s, when the Franciscans agreed for the Cavaliere Bernini to clad their flagship chapel, the Chapel of the Immaculate Conception, they knew marbles were now necessary for a chapel to be really nobile. The new expectations are summed up by Bernini’s testy rebuttal to the elders of Rieti when they suggested using stucco rather than marble to clad a chapel: “To make a chapel worthy of this city it would be better to wait for alms, or some other handout, than [erect] something more appropriate for Capuchins.”

Cost was a decisive factor. The prior of the equally meek Trinitarians remarked that, had funds been available, he would have made his little church (San Carlino alle Quattro Fontane) richer than Solomon’s temple, with a pavement made of emeralds and precious stones, since exterior splendor expressed an interior love of God and nothing could be excessive when it came to God’s house. His church remained glaringly white, however, and took

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53 Fra Juan di San Bonaventura, _Relazione_, 31: “Per che molte volte fu sentito rispondere a alcuni che gli dicevano che haveva fatto chiesa molto vaga, curiosa, straordinaria, et non simile a nessuna, che si [= se] lui potessi la heveva fatto molto più ricca che quella di Salomone, et che si contentaria de che il pavimento fusse di smeralde et pretios.me pietre, per che lui faceva cosa non per altro che per Dio. Che quando si trattava di far havitatione per Dio, anco che sia in questo materiale non può trovarso ecesso, perché questo esterno è dechiarativo dello interno e del amor
decades to complete (1634-1675), in dramatic contrast to S. Maria della Vittoria half a mile up the same street. When Cardinal Cornaro decided to advertise his cardinalar magnificence by showering the best-quality marbles on the family chapel S. Maria della Vittoria, it took only three years (1647-51) and cost 12,089 scudi, more expensive than the entire church of S. Carlino (11,678 scudi) and one-fifth the cost of Bernini’s S. Andrea al Quirinale (56,000 scudi). Similarly, the colored revetment of the Spada Chapel (1661-3), in S. Maria in Vallicella, cost approximately 12,000 scudi, about twelve times the cost of the structure it clad not to mention consuming fourteen years from quarrying to installation (1665-79). An earlier marbled chapel, that belonging to the Nero di Nero family (1600) also in S. Maria in Vallicella, proved so expensive to clad that the patrons actually gave up recording the expenses.

Gems and Tabernacles, Eucharistic and Marian

Another catalyst to the growing use of marbles and semi-precious stones was the premier role assigned to the Eucharistic tabernacle in the Counter-

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56 A document of July 1601 records “le spese per la cappella non sono seguitate a scriversi, si perché erano spese incredibili, e non si poteva tener conto per minuto, si perché le spese che si facevano a Firenze, le quali erano le principali e le maggiori, non si potevano sapere”: Tuena, “Marmi,” 97 (note 49).
reform, where it now supplanted the medieval reliquary as the anagogical beacon of the church interior. Because the tabernacle assimilated the ark and the Holy of Holies in Solomon’s Temple it was right and fitting that it be adorned with gems or their surrogates.\textsuperscript{57} Because the brilliance of gems brought them nearer to heaven, its beauty and infinite virtues, ever more diverse hardstones and marbles encrusted Eucharistic tabernacles. The ubiquitous \emph{concetto} of a “heaven upon earth” resulted in confections like the tabernacle on the Lateran Altar of Sacrament (c.1600) whose base is inlaid with hardstones obviously meant to miniaturize the foundations of the heavenly Jerusalem.\textsuperscript{58}

First Matteo Giberti in Verona (1529), and then Carlo Borromeo in Milan (1568), had made the Sacrament the physical heart of the Counter-Reform church. In 1590 it became obligatory.\textsuperscript{59} Following their example, with increasing

\textsuperscript{57} “assai chiaro si rende esser stato nella Santa Chiesa usato fino da’ primi tempi scolpire, e dipingere le sacre Imagini in materie pretiose, & arricchirle con oro, argento, e gemme. E ciò con molta ragione; perche se Dio voleva che l’Arca dell’antico Testamento fosse di legno incorrotibile, coperta dentro, e di fuori di oro purissimo, & il Propitiatorio con i Cherubini ancor essi di oro, è cosa convenientissima far l’Imagine, e statue del Signore, e della Vergine, e de’Santi figurate in quel Propitiatorio, Arca, e Cherubini, d’oro, d’argento e di pietre pretiose... Concependo anche da questo gran speranza, e fiducia, che se si gode questa Signora in particolare tanto, che le sue Imagini siano fatte, & ornate con i nostri argenti, ori, e gemme pretiose, che in fine sono cose basse, e coruttibili, ci farà gratia benignamente di donarci delle gemme, e dell’oro delle gratie, e virtù, e doni celesti, per adornare, e conservare in noi l’Imagine del suo Santissimo Figliu, acciò con purità, e perfettione adesso lo serviamo, e poi in eterno lo possiamo godere”: [Matraia, 1638 #205@17-18].


frequency and soon ubiquitously, the architectural vessel judged most suitable for housing the Host, Christ’s body, was the tempietto. It became an emblem of perfectibility, denoting “the perfect, truest Religion” in Ripa’s seminal Iconologia (1603), and therefore a succinct materialization of the earthly Church as reflection of the celestial Jerusalem.⁶⁰ Thanks to its liturgical function, the tempietto-tabernacle was also the easy surrogate for the New Temple, Christ as the “greater and more perfect tabernacle, not made with hands” (Hebrews IX: 11).

The obsessional miniaturization that characterized ciboria up and down Italy, in combination with the scintillating plethora of hardstones that incrusted them, only underscored their qualities as microcosmic models. Like a collapsed star, their symbolic mass was far greater than the physical volume they occupied. For, to set the tempietto on the altar was to present the church that was to come, the “Tabernacle amongst men” (Revelations, 21: 3). It was akin to bringing the lantern down from on high, at the apex of the dome of heaven, and for the same reasons tempietti eventually joined the formal repertoire of the Quarant’ore, the ephemeral staging of the Eucharist.⁶¹ For contemporary observers the intrusion


⁶¹ Altars frequently bear the inscription “Hoc est tabernaculum cum hominibus,” e.g. the altar in the Cappella del SS. Sacramento in S. Marco, Rome (1655-56). On this type of altar: John F. Moffitt, “Archetypal micro-architecture: prolegomena to the Custodias processionales,” Konsthistorisk Tidskrift 58, no. 2 (1989): 47-62. The tempietto became part of the formal repertoire in 1650, when Carlo Rainaldi made it burst in upon Solomon’s temple. A sophisticated audience immediately grasped the implication of the innovation, for “saggi spositori riconnobero nel maggior Tempio la Sinagoga antica; nel picciolo Tabernacolo, la nuova Chiesa.” Anonymous, APARATO DELLE SOLENNI QUARANT’HORE Celebrate nel GIESU di Roma l’Anno del Giubileo 1650 (Rome: Vitale Mascardi, 1650): fol. 7; reprinted in Joseph Imorde, Präsenz und Repräsentanz,
of the divine into the human orbit that the tempietto formally and materially signified would have been inescapable for another reason. Simulated marbles, gems and other precious metals also announced the heavenly provenance of the floating tempietti that provided the deus-ex-machinae in Baroque theater.\(^62\)

Another candidate for encrustation in the Counter-Reform church were altars dedicated to the Virgin. Again, these altars should also be as perfect a vessel for her image, as \textit{vas perfectile}, as she had been for Christ. In fact, analogies were often drawn between the Virgin’s womb and the Heavenly Jerusalem, or the Holy of Holies in the Temple of Solomon (see Chapter 8). Such themes were, again, played out in an armada of festival ephemera. Thus, a processional baldachin (it is called a “Thalamus”) built for the procession of the Madonna del Rosario in October 1625 not only sported Salomonic columns and the roses of the Virgin, but was also decked out with a cupula (“corona imperiale”) of precious and apocalyptic stones (fig. 11.22).\(^63\) Moreover, as Bacci’s treatise on the Cope

stressed, when the gems of heavenly virtue were set in papal robes or regal crowns, they conferred divine assent. Given all this, when we look at an altar like that in the Cappella della Madonna of San Giovanni dei Fiorentini (fig. 11.23), built to Maderno’s designs in 1612-14, it is difficult to imagine a better crown for the Queen of Heaven than the gem-like intarsie which surround her miraculous image, just as they had in Bellini’s Pesaro altarpiece (fig. 8.29).

Marbles and Martyrdom: S. Cecilia

Medieval shrines to martyrs had always been lavished with gold, diamonds, crystals, gems, and porphyries. It is therefore no surprise that Giacomo Della Porta applied heavenly marbles to the confessio at S. Cecilia.

63 “Era il Talamo d’ordine Ionico... haveva ne’ quattro angoli... quattro colonne di rilievo ritorte à foggia di quelle del Tempio di Salamone, che hoggi si vedono nella Chiesa del Vaticano, inargentate d’argento fino... le quali venivano cinte a foggia di serpe da pianta, & da rami di rose colorite con sue frondi... Sopra i quattro architravi veniva alzata in luogo di cupola una bellissima corona imperiale fatta alla grande... Era contornata tutta la corona di gioie, & di perle grosse un’oncia, e meza l’una, & le gioie erano ovate, tone, quadre, & a ottangoli, contornate d’oro buono, &colorite di colore di smeraldi, di topazzi, carbonchi, giacinti, & diamanti”: A. Brandi, Relazione completa (pamphlet, s.l.), 5th October 1625.

64 “si come nelle Pietre pretiose risplende l’ornamento, & la bellezza del cielo, & delle stelle; così come il sommo Sacerdote risplenda per la revelation delle cose arcane, e di sapere (come dice l’Evangelo, gli gran segreti di Dio. Et come parimente son dotate d’infinite virtù, & gratie Celesti, così ogni raggio di virtù debba risplendere nel Sacerdote, dovendo essere specchio, & esempio di religione, di sapientia, prudenza, giustitia, & fortezza, & d’ogni atto virtuoso. Et insieme, che al paragone delle Gemme dovesse il Sacerdote comparire al conspetto di riguardanti, & de gli occhi stessi, esemplare, & ammirabile per la bontà, & purità della vita, & con autorità tremenda di Dio omnipotente [...] Di qui è venuta l’antica, & laudatissima usanza, che le diademi, & le Corone Regie, & Pontificali, si ornassero di Gemme pretiosissime, & parimente si portassero ne gli anelli de’ nobili, & di virtuosi, & ancora ne gli ornamenti delle gran Signore, & Principesse, per segno senza dubbio, che al paragone di quelle Gemme, & Perle, & oro, risplendesse nelle persone loro ogni sorte di virtù, di honestà, & purità della vita incontaminata”: Bacci, Le XII pietre: 2-3.

65 Carved by Matteo Castello, elaborate marble inlay by Simone Castello (1612-14), to Maderno’s designs: Howard Hibbard, Carlo Maderno and Roman architecture, 1580-1630 (University Park, Pennsylvania State University Press, 1971): 143, fig. 38; Julia Vicoso, “Carlo Maderno e le maestranze ticinesi a Rome. Il cantiere di S. Giovanni de’ Fiorentini, 1608-23,” Palladio 11, no. 22 (1998): 88. Not only was the Virgin’s heavenly crown staple to her iconography but young women, to this day, donated their jewels to the Virgin and cult statues were regularly festooned with necklaces and bracelets of semi-precious stones.
begun in 1599 (fig. 11.24). As this construction will have some influence on Bernini’s later Cornaro Chapel it deserves some analysis. At S. Cecilia the marbles help reconcile original history (the medieval church and its founding traditions) with prolepsis (continuously rehearsing the moment when this saint’s body was providentially rediscovered on this spot) and prognosis (the heavenly rewards of faith, particularly martyrdom). As enclosure, the archaizing forms of the whole screen-wall mimic medieval compounds like the *ambones* of S. Clemente and just possibly the revetments in late-antique catacombal cubicula. Cecilia’s black niche is certainly termed a *loculus* in the fastidious edition of the saint’s *Passio* by Antonio Bosio, celebrated investigator of the Roman catacombs (Appendix 11.2). Visually, of course, it also offsets the recumbent statue that Stefano Maderno carved limb-for-limb and fold-for-fold, from the disinterred body.

The unblemished marble also manifests the incorruptibility of Cecilia’s cadaver, and for this reason the sculptor’s patron chose a block of “Parian” marble for her effigy. Aldrovandi was able to identify an antique bust of the republican heroine Lucretia, “who was a leading light of chastity,” but noting its

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67 Only three years earlier (1596), Baronius had answered the back-to-basics call to renew the church, by returning the interior of SS. Nereo e Achille to an appearance he believed authentically Paleo-Christian. Much of the church furniture is a real pastiche of fragments of Cosmati work salvaged from S. Giovanni Calabita, S. Paolo fuori le mura, and probably S. Prassede and S. Silvestro in Capite as well as classical, quattrocento, and cinquecento pieces adapted to the new setting; Maria Grazia Turco, *Il titulus dei Santi Nereo ed Achilleo emblema della riforma cattolica* (Rome: Librerie Dedalo, 1997): esp. 74-86 with bibliography. Although Sfondrati swept away the authentic ambones from S. Cecilia, the altar wall must be considered a concise substitute.
It was Parian (fig. 11.25). Cecilia’s miraculous aura then spreads to the scintillating border of lapis and onyx (tellingly among the only stones that Bosio mentions by name) rather like the saintly halo which will suffuse the pedestal ringing Pierre Legros’ equally veristic representation of St. Stanislaus Kostka a century later (1703).

Maderno’s shining statue lies between the tomb and the altar, between the place of death, and the locus of transcendence. She evokes the white-clad martyr that lies beneath the apocalyptic altar (Apocalypse, 6, 9-11) and the effigy elides the transition between life and life eternal by recording both the historical body that defies corruption and the diaphanous celestial soul that awaits reunion with it.

Vasari’s tribute to Michelangelo’s Carrara Moses seems to play upon the same conceit: “Moses may today, more than ever, call himself the friend of God, since well before the others he wished to put together and prepare his body for its resurrection.”

68 “quae fuit praecipuum castitatis lumen”: Bernia, Ambrosini, and Aldrovandi, Musaeum metallicum: 774. Bosio’s specification that the marble is Parian was not a topos but a case of mistaken identity. When the statue was removed from its niche for cleaning in 2002, it was discovered to be Pentelic and its underside polished, both facts indicating that it may be an antique pilaster fragment.

For reports of the discovery of the incorrupt body and its subsequent display: Kämpfe, “Framing Cecilia,” 13-14. The inscription below the statue reads “Gaze upon the likeness of the most holy virgin Cecilia, / Which I saw myself lying in state in the sepulchre / I have had this same likeness, precisely in the same position her body lay, / shaped for you in marble” (“PAVLVS TT. S. CAECILIAE / EN TIBI SANCTISSIMAE VIRGINIS CAECILIAE IMAGINEM / QUAM IPSE INTEGRAM IN SEPULCHRO IACENTEM VIDI / EANDEM TIBI PRORSUS EODEM CORPORIS SITU / HOC MARMORE EXPRESSI”).


70 “Moisè può più oggi che mai chiamarsi amico di Dio, poiché tanto inanzi a gli altri ha voluto metter insieme e preparargli il corpo per la sua resurrezione”: Giorgio Vasari, Le vite de’ più eccellenti pittori, scultori e architetti, edited by Rosanna Bettarini and Paola Barocchi, volume 6. 1, Florence 1987, p. 29.
Just as Cecilia’s incorruptibility is not circumscribed by human time, the gleaming marbles that ring her become the currency in a transaction between this world and the next. For martyrdom, in Cecilia’s own words, “is not to lose youth, but only to exchange it; to discard mud for gold; pebbles for sparkling diadems; and a dark hovel for a great and spacious palace built of gold and precious stones” it is, Bosio has her say, “to exchange something that is perishable for something which knows no end.”

The mesmerized pilgrim who beheld this ensemble was, in fact, still subject to an anagogical program and, until the mid-seventeenth century, the confessio was one of the few places that one did find actual marbles on the interiors of the new churches. So the pilgrims who trod the clay floors of the nave knew that the stones in the vision that met their eyes were literally not of this earth. It can come as no surprise that Panvinio called the confessio the “Gates of Paradise.”

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72 “This is not to lose youth, but only to exchange it. It is to give mud away and receive gold for it. To give away a small and vile hovel and to receive a very wide and great palace built of gold and precious stones. To discard a narrow and dark cranny, and receive a brilliant forum, glittering with celestial pearls. To abandon something that is perishable in exchange for something which knows no end and ignores death. To rid oneself of vile stones which are trampled under foot so as to accept a precious stone that sparkles in a royal diadem” (“Hoc non est iuventum perdere, sed mutare; hoc est dare lutum, & accipere aurum; dare habitaculum vile, & parvum, & accipere palantium magnum, & amplissimum ex lapidibus pretiosis, & auro constructum; dare angulum brevem, & obscurum, accipere forum lucidum, margaritis caelestibus coruscans; dare rem periturum, & accipere rem, quae finem nescit, & mortem ignorat; dare lapidem vilem, qui pedibus conculcatur, & accipere lapidem pretiosum, qui in diademat regio vibranti resplendent aspectu”): Antonio Bosio, Historia Passionis B. Caeciliae Virginis, Valeriani, Tiburtii, et Maximi martyrum nec non Urbani, et Lucii Pontificum, et Mart. Vitae atque Pascalis Papae I Litera de eorumdem sanctorum corporum inventione, et in Urbe translatione... (Rome: Stefano Paulini, 1600): 21-22. This sort of analogy is extremely common in the Passio genre.
Painting in and on Stone: Inspiration and tabletop alchemy

Antonio Bosio describes the marbles at S. Cecilia as both “gems” and “a species of painting.” The topos on which he draws is, again, the ancient one that marble was inherently and naturally painted both because of the images readily legible in its veining and the varied colors that individual slabs displayed. This was the stuff of Byzantine ekphrasis (see Chapter 4), but with the confidant re-emergence of marble cladding and concomitant ekphraseis towards the end of the Cinquecento, alongside the philological trawling of Scripture and patristic sources (Greek or Latin), such topoi were very consciously revived.

Now exegetes even dared to challenge the Vulgate by arguing, from the original Hebrew, that the walls of Solomon’s Holy of Holies were not painted slabs, but that the stones were so naturally variegated they resembled painting.\(^ {73} \)

What gives the corrective such authority is that the exegete in question was Juan de Piñeda, the censor of the Spanish Index of Prohibited Books. Such correctives stemmed, one suspects, from the more urgent counter-Reform defense of religious painting against Protestant iconoclasm. Lomazzo had opened his influential *Idea del Tempio della Pittura* (1590) by exalting painting to the heavens

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\(^ {73} \)“The third species, stones of various colours, which in the original is called *lapis variegatus*, from the word *Rakam*, which means *to variegate*, and even *to paint*, or *to interweave with varied handiwork and divers colours*, which word we have discussed many times already (Psalm 44, Verse 16) where, because of the peculiar nature of the term (whether painting or variegation), it has little to do with fabrics, but rather stone, as can be seen clearly when the Latin translator wrote, *Esther* 1:6 in the description of that very precious pavement: ‘A pavement made from Parian stone and Jasper; which it adorned like painting through its marvellous variety.’ I therefore trace [the word] more to the variation of the stones themselves, than painted coverings, which would conceal the beauty and variety of the precious stones” (“Tertium genus, lapides *Diversorum colorum*, qui in Originali dicitur, *lapis variegatus*, à verbo Rakã, quod est, variegare, & quasi depingere, aut intexere opere vario & diversorum colorum, de quo verbo semel latè disputavimus Ps. 44. Vers. 16. cum autem illa sive pictura, sive variegatura ex proprietate vocis indifferens sit ad vestem, vel ad lapidem, videtur sane Latinus interpres dixisse, Esth. I. 6. in descriptione pavimenti illius pretiosissimi: *Pavimentum smaragdo & Pario stratum lapide; quod mira varietate pictura decorabat. potius enim refero ad variegaturam ipsorum lapidum, quam ad stragula picta, quae importune occultarent pulchritudine[m], & varietatem pretiosorum lapidum*”): Juan de Pineda, *De rebus Salomonis Regis libri octo* (Lyons: Horatius Cardon, 1609): Lib. V, Cap. V, sec. XV, 87.
because God Himself painted nature. Tasso seconded the tenet in his *Le sette giornate del mondo creato* (1592/94) and, more pertinently perhaps, Anselm De Boodt’s 1609 highly influential treatise on gems explained the generation of streaky marbles with the metaphor that nature had mixed from the elements just as painters mixed primaries on their palettes.

In the Quattrocento marbles had also become the gardens of potential cognition for artists in search of pictorial invention. Leonardo, Piero di Cosimo and Botticelli all counseled painters to study colored stones for compositional inspiration, especially “the likeness of divine landscapes, adorned with mountains, ruins, rocks, woods, great plains, hills and valleys in great variety…

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battles and strange figures in violent action, expressions of faces and cloths and
an infinity of things.” Botticelli flung paint-loaded sponges at walls to find his
landscapes, and Leonardo was so entranced by the random beauty of the
patterns that he sought to reproduce them by binding goose quills into bundles
that he called mistioni. Looking to veined stones for inspiration was also global.
Chinese painters from Sung Ti in eleventh century to Wang P’o-mo and Fan-
yang shan-jen in the eighteenth were famed for it. There are obvious modern
equivalents as well, not only Jackson Pollock but Max Ernst who actually began
his essay on frottage by quoting Leonardo’s famous passage.

For the medieval or Renaissance artist the idea of “painting in stone” was
as was much a matter of practice as of theory, from quarrying the mineral to
grinding it into pigment. The journey from raw product to medium was so
integral to the painter’s art that when Vasari came to write his Vite, he began

76 A. Philip McMahon, ed., Leonardo da Vinci. Treatise on painting (Codex urbinas latinus 1270), 2
stained walls and “stared at clouds imagining that he saw there equestrian combats, cities,
landscapes.” For “chance images” in Renaissance art: Horst W. Janson, “The ‘Image Made by
Chance’ in Renaissance Thought,” in De artibus opuscula XL: Essays in Honor of Erwin Panofsky, ed.
Images,” in Dictionary of the History of Ideas: Studies of Selected Pivotal Ideas, ed. Philip P. Wiener
( New York: Charles Scribner’s Sons, 1973), 1: 340-53; Ernst H. Gombrich, Art and illusion: A Study
in the Clouds?”); and now the exhaustive Giacomo Berra, “Immagini casuali, figure nascoste e
natura antropomorfica nell’immaginario artistico rinascimentale,” Mitteilungen des

and Man (London: Dent, 1981): 343 and fig. 100. Cennino Cennini seems also to have used quills
to make “mosaics”: Daniel V. Thompson, ed., Cennino Cennini. Il Libro dell’Arte (New
Haven/London: Yale University Press, 1932), 114.

78 Gombrich, Art: 188.

79 “Au delà de la Peinture,” Cahiers d’Art repub. and trans. Herschel B. Chipp, Peter Howard Selz,
and Joshua Charles Taylor, eds., Theories of Modern Art. A Source Book by Artists and Critics
Chance” in China and the West: Ink Wang Meets Jackson Pollock’s Mother,” The Art Bulletin 74,
them with colored stones and only then progressed to painting techniques, and eventually biography. It is only symptomatic of our present detachment from the transformational properties of stones that his prolegomenon is now, more often than not, published as a separate book.

In the most important surviving medieval treatise on the painter’s trade, Cennino Cennini describes the skill, handed down from father to son, of prospecting the raw material in the seams of the earth so as to extract the “natural colour” directly from her “wrinkles.” Having ferried the various minerals back to the studio, the artist began the daily grind of mineral into pigment, the table-top “alchemy” (in Cennini’s words) that made stone into painting. In the studio, the artist capitalized on the hardness of porphyry and serpentine for his slabs and mullers, and in Urbino Raphael’s marble grinding slab has even become a relic, an altar to the miracle of transforming nature into art. In fact, if medieval and early renaissance artists had few problems

80 Thompson, ed., Libro dell’Arte, 27.

81 According to Cennini Red Lead, Orpiment (yellow), Arzica (yellow), Verdigris and White Lead are made “alchemically”: Chaps. 41, 47, 50, 56, 58 in Thompson, ed., Libro, 25, 28, 30, 33, 34. But “giallorino… is actually a mineral, originating in the neighbourhood of great volcanoes; so I tell you that it is a colour produced artificially, though not by alchemy”: Thompson, ed., Libro, 28 (chap. 46).

82 “Take a slab of red porphyry, which is a strong and solid tone; for there are various kinds of slabs for grinding colours, such as porphyry, serpentine, and marble… porphyry is best of all; and it will be better if you get one of those that are not so very polished… Then get a stone to hold in your hand, also of porphyry, flat underneath, and rounded on top in the shape of a porringer… shaped so your hand may be able to guide it readily”: Thompson, ed., Libro, 21 (chap. 36); cf. 5 (chap. 2) and 71 (chap. 115). Byzantine paint also ground pigment on porphyry (ἐν μαρμάρῳ πορφύρῳ): J. R. Partington, “Chemical Arts in the Mount Athos Manual of Christian Iconography,” Isis 22, no. 1 (1934): 141. The porphyry and serpentine slabs from Mantegna’s studio mentioned in the inventory of his son Ludovico (1510) presumably served the same purpose: Rodolfo Signorini and Anthony Radcliffe, “Una figura nuda legata a un tronco,” A gilt Bronze Statuette here attributed to Andrea Mantegna,” Atti e memorie dell’Accademia Nazionale Virgiliana di scienze e lettere ed arti 65 (1997): 57-58. Cf. “tre pietre doi di porfido et l’altra serpentina per macinar colori con suoi macinelli” in the inventory of Durante Alberti (1613): Gerda Soergel Panofsky, “An Artist’s Library in Rome around 1600,” in Ars naturam adiuvans. Festschrift für Matthias Winner, ed. Sebastian Schütze and Victoria von Flemming (Mainz am
accurately simulating these granites it is precisely because they ground their colours on them. Conversely, the artist could also make tracing paper on his Porphyry or Serpentine slab and this task provided other opportunity to scrutinise its markings.  

**Painting on Stone**

The next step was to start using the stones themselves as supports for painting. This trend initiated in 1530, when Sebastiano del Piombo devised a technique for paint to set into marble rather than remain a vulnerable surface film. Sebastiano and the many painters, including Vasari, Titian and the Bassano, who emulated him over the next hundred years, immediately seized on the idea that they had produced a “painting that was virtually eternal.” The patterns of the support itself soon played a more integral part in the depiction and the variety of stones enlisted included slate, lapis, *paragone* – the generic term

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86 “avendo poi cominciato questo pittore un nuovo modo di colorire in pietra, ciò piaceva molto ai popoli, parendo che in quel modo le pitture diventassero eteree e che né il fuoco né i tarli potessero loro nuocere. Onde cominciò a fare in queste pietre molte pitture, ricingnedole con ornamenti d’altre pietre mischie, che fatte lustranti, favenao accompagnatura bellissima”: Vasari-Milanesi;
for any black marble (touchstone) – alabaster, *pietra paesina* (or *albarese*), jasper, veined marbles, amethyst and agate (11.26-7). Lapis lazuli and amethyst were ideal when a brilliant sky was required, gushing red alabasters for scenes like the *Crossing of the Red Sea, paragone* for nocturnes, alabaster and agate for scenes of revelation filled with heavenly cloud, and so on. The painter now found himself in partnership with the stone, “the skill of the artist playing with the art of nature,” fulfilling the suggestions of Nature the painter, and becoming to some extent a spectator to their collaboration. Collectors marveled at the results, which were “most noble because they were eternal,” and because one could not tell “whether they were treasures of Nature or miracles of Art, precious in their materials, marvelous in their artifice.” When such paintings were inserted in ebony or marble frames themselves set with veined hardstones, the correlation between one art form and another became still more evident (fig. 11.28). When they were set into altars, as on the High Altar of Santa Maria della Passione in Milan (c. 1600; fig. 11.29), the stones still aped gems but once more introduce the theme of divine painting. By the 1630s the Sienese painters Michelangelo Vanni and Niccolò Tornioli had transformed the metaphor into technique by devising a lucrative, chemical process of painting “naturally” *within* the marble itself (see Chapter 12).

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88 This altar is unresearched. Paltry information is supplied by M. A. Zilocchi, in Giulio Bora, ed., *Santa Maria della Passione e il Conservatorio Giuseppe Verdi di Milano* (Milan: Silvana, 1981), 174-80. The marble panels may have been painted by Giulio Cesare Procaccini and Gian Battista Crespi the altar possibly designed by Francesco Mazenta between 1600 and 1619.
All this interest in marble as a form of painting was rekindled not only by the new genre of paintings on stone but the revival of mosaic and opus sectile, both of which were also regarded as “paintings in stone.” Vasari tells us that glass mosaic derives from marble mosaic, which is no less than “a painting capable of withstanding water, wind and sun for an eternity.” Mosaic had never been fully abandoned in Venice, unlike Rome, because it withstood the damp in a way that paint could not, but its use was intermittent and the art lived on thanks to the necessity of maintaining the mosaics at S. Marco. If Vasari was right, it took an artist of the stature of Titian, who provided cartoons for new mosaics in S. Marco, to reinstate the medium in the vanguard of artistic endeavor. As in antiquity and Byzantium, the term “painting” had far broader meaning that today and, by the second decade of the seventeenth century, the papal physician and art critic Giulio Mancini will make regard mosaic, opus sectile, marquetry, even tapestry as all “species of painting” (appendix 11.3).

Whatever the case, using marble supports became so familiar a sight that it did not take long for novelty to turn to expectation. Thus, although Athanasius Kircher applauds the high altar of S. Sebastiano fuori le Mura (fig. 11.30) for its marble background “wherein clouds and the bright parts of the sky can be seen wonderfully feigned,” no marble is or ever was employed here, and the striated sky is actually painted in tempera directly onto the altar wall.

89 “una pittura da poter reggere alle acque ed ai venti e al sole per l’eternità sua”: Vasari-Milanesi 1: 144.

90 Vasari-Milanesi 7: 466-7.

91 “For the same reason you may see depicted in another type of marble stone, cities, mountains, clouds. There is a stone of this sort in my Museum, showing a towered city with houses furnished with windows... On the High Altar of San Sebastiano fuori le mura a marble is
The Paragone and “Painted” Architecture

As soon as colored marbles became established chapel furnishings, painters and architects saw the advantages of integrating the palette of the altarpiece with that of its container. One of the earliest examples is Cima’s high altarpiece of the Baptist of Christ (1492-94) in S. Giovanni in Bragora, Venice (fig. 11.31), where both palette and composition collaborate with the frame. From the springs the radius of the aedicule arch, various horizons in the picture correspond with architectural ornaments and, more significantly, the painted cherubim and clouds reappear in the sculpted heads and alabaster sheets respectively of the spandrels.

Likewise, in the Cavalcanti Chapel (fig. 11.3) the concert of marbles sustains the palette of Bronzino’s altarpiece beyond its frame, into a chapel that was as shallow as a saucer, and whose hierarchy of effects depends on color. The designer was, in fact, so bent on continuity that even the capitals and bases of the columns are yellow (giallo antico), a feature remarkably rare in antiquity and with no followers in the Baroque.

displayed (in which the Crucifix is inserted), wherein clouds and the bright parts of the sky can be seen wonderfully feigned” (“Unde videas & in altero quodam lapide marmoreo depictas urbes, montes, nubes, cuiusmodi est in meo Museo, urbeam turritam em domibus fenestris instructis… In Altari primatii Templi S. Sebastiani extra Roman marmor, cui Crucifixus insertus est, exhibetur, in quo nubes & lucidae coeli partes mire adumbratae spectantur”): Kircher, Mundus subterraneus: 30. The Crucifixion is by Innocenzo Tacconi (1614): Elena Fumagalli, “Guido Reni (e altri) a San Gregorio al Celio e a San Sebastiano fuori le mura,“ Paragone 483 (1990): 80. The edicular frame originally designed by Ponzio was replaced in 1676: Antonio Ferrua, S. Sebastiano fuori le Mura e la sua catacomba. Chiese di Roma illustrate, 99 (Rome: Marietti, 1968): 38. The design is, however, far too retardaire for this date and it is more likely that a stucco altar was remade in marble.

By the 1580s, the équipe that decorated the aisle chapels of the new Oratorian church of S. Maria in Vallicella in Rome (in 1586-1621) realized the potential that marble veneering afforded to amplify the religious image (without the busy competition of grotteschi or stuccoes) and seamlessly dilate its contemplative environment beyond the frame. As devotees moved through the Vallicella’s Marian cycle of chapels dedicated to the misteri gaudiosi, misteri dolorosi, and misteri gloriosi, they would progress from the festive colors around Barocci’s Presentation (marbling 1589-92, altarpiece 1603; fig. 11.32) to the somber rust-reds and funereal blacks surrounding Caravaggio’s Deposition of Christ (1602-4). This sequence, where color thematizes mood, is deliberate if not exactly systematic, and the Oratorians must have been well aware of the spiritual efficacy of color as described by Federico Borromeo, one of their patrons, when he compared painting to sacred oratory: “Colors,” he says, “are similar to words which perceived through the eyes penetrate the soul no less than do voices through the ears... so a painting will be a great work if its colors and lines are handled in such a way as to introduce pious feelings into the soul and produce fear and sorrow, or whatever other suitable emotion.”

Pietro da Cortona echoed this subjective concept of color in the middle of the seventeenth century in a consummate example of Italian prosody: “Whoever paints well, makes with his colors beautiful qualities of mute eloquence, and can without speaking a word

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93 The successive stages in the decoration of these chapels is documented in Stefan Kummer, Anfänge und Ausbreitung der Stuckdekoration im Römischen Kirchenraum (1500-1600) (Tubingen: Wasmuth, 1987): 113-85.

94 Federico Borromeo, De Pictura Sacra, Milan 1624: 19.
make others understand, as though he were a faithful interpreter, the hidden sentiments of the heart.”

By the century’s end it had become common practice for painters to receive marble samples when executing an altarpiece, and even new mullers and grinding slabs in the same package. Thus, when Cirro Ferri’s altarpiece in S. Maria Maddalena de’Pazzi in Florence (fig. 11.33) was unveiled to universal praise in 1685, the artist boasted that he was “not surprised at all... for the entire time he was painting he had the Chapel, the colors, luster and harmony of its stones before his eyes,” such that “outside its setting the painting would have as lost as much as it had acquired by being placed there.”

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96 Letter from Paolo Falconieri (Rome) to Appollonio Bassetti (Florence), 2 June 1685: “Signor Cirro was not at all surprised on hearing that your worship applauds the effect of his painting now that it has been installed in its niche. For, he says that all the while he was painting he had the Chapel, the colours, lustre and harmony of its stones before his eyes, and with which he had to conform and consequently outside its setting the painting would have as lost as much as it had acquired by being placed there, and he hopes that with time it will acquire even more…” (“Non si è punto maravigliato il Sig. Ciro sentendo nella gentilissima di V. S. Ill.ma esagerare l’acquisto che à fatto il suo quadro posto nella sua nicchia, dicendo d’avere avuto negli occhi, mentre lo dipignea, la Cappella, i colori, il lustro, e l’armonia delle sue pietre, colle quali aveva d’accordare e conseguentemente che fora di lì perdeva tanto, quanto vi avrebbe acquistato essendovi, e spera che col tempo acquisterà dell’altro,”): Klaus Lankheit, Florentinische Barockplastik; die Kunst am Hofe der letzten Medici, 1670-1743, 2 vols. (Munich: F. Bruckmann, 1962): 291, doc. 412; Edward L. Goldberg, Patterns in Late Medici Art Patronage (Princeton: Princeton University Press, 1983): 224. Cf. Piero Pacini, “Cappella di Santa Maria Maddalena de’ Pazzi nella chiesa omonima,” in Cappelle barocche a Firenze, ed. Mina Gregori (Cinisello Balsamo, Milan: Amilcare Pizzi, 1990), 165-98. This letter follows another, from Appollonio Bassetti to Montauto 18/6/1675: “The two crates which arrived for Your Grace from Signor Ciro [Ferri] contained a drawing made by him for this Chapel which is to be built at S. Maria Maddalena de’ Pazzi... the other contained samples of the marbles, which we have here to be used in that chapel, so that he may dispose the architectural members of that work such that their colours will be the better disposed (“Le due Cassette che arrivorno a V.S.III.ma per il Sig.r Ciro contenevano una il Disegno da lui fatto per questa Cappella che si deve edificare alla Santa de’ Pazzi... e l’altra un saggio de’ Marmi, che qua haviamo da potervi impiegare, perchè egli possa farne il ripartimento ne’ Membri di quell’opera, secondo troveranno meglio divisati i lor Colori’’): Lankheit, Florentinische Barockplastik: 291, docs. 399.
Revetment as Eternal Painting

Revetment and painting had always been interlinked. Pliny, as we know, had lamented that true painting was moribund because “we have begun to paint in stone” and the Byzantine topos that marbling “rivaled glories of painting” was never quite forgotten (see Chapters 2 and 4). In the late sixteenth century “painting in stone” became once more an ambition. Vasari observes that in Pirro Ligorio’s 1566 tomb of Paul IV in S. Maria sopra Minerva (fig. 11.1), “the mixture of different colors renders it marvelous. And so we see... that sculptors through color approach sculpture by imitating painting.”\footnote{“una statua di pezzi (oltre agli altri ornamenti) che rappresenta quel papa, col manto di mischio brocatello, ed il fregio, ed altre cose di mischi di diversi colori, che la rendono maravigliosa. E così veggiamo questa giunta all’alte industrie degl’ingegni moderni, e che i scultori con i colori vanno nella scultura imitando la pittura”: Vasari-Milanesi, 7: 551.} The subtext to which Vasari alludes is the Paragone, the literary debate over the relative superiority of sculpture or painting in imitating nature which concluded with the proposition that painters and sculptors emulate each other to outdo nature.\footnote{In an expanding literature, see Mario Pepe, “Il ‘paragone’ tra pittura e scultura nella letteratura artistica rinascimentale,” Cultura e scuola 8 (1969): 120-31; Marco Collareta, “Le ‘arti sorelle’. Teoria e pratica del ‘paragone’,” in La pittura in Italia: il Cinquecento, ed. Giuliano Briganti (Milan: Electa, 1988), 569-80; Lauriane Fallay d’Este, Le paragone: le parallèle des arts (Paris: Klincksieck, 1992); Simonetta La Barbera Bellia, Il paragone delle arti nella teoria artistica del Cinquecento (Italy: Cafaro, 1997); Oreste Ferrari and Serenita Papaldo, Le sculture del Seicento a Roma (Roma: Ugo Bozzi, 1999): xx-xxxii; Paola Barocchi, “Die Wettstreit zwischen Malerei und Skulptur: Benedetto Varchi und Vincenzo Borghini,” in Ars et scriptura: Festschrift für Rudolf Preimesberger zum 65. Geburtstag, ed. Hannah Baader, et al. (Berlin: Gebr. Mann, 2001), 93-106.} The longevity of sculpture over painting was a recurrent issue of the Paragone, hence the promptness of painters to celebrate the new “painting that was virtually eternal.”

For Vasari and his contemporaries, then, the transgression of the conventional boundaries between the arts in Ligorio’s tomb was a signal of modernity, but one that kept step with the past. The study of surviving antique
opus sectile had become especially important since, as observers from Aldrovandi to Bottari commented, these remains were the only sure way to know the colors of ancient painting. Such research was possible in Rome because far more polychrome marble schemes still survived than do today: the Curia, Lateran Baptistery, S. Lucia in Selci, S. Costanza, SS. Cosma e Damiano, S. Maria Maggiore, S. Sabina and, of course, the Pantheon all retained their antique revetments (see Chapter 2). In fact, when Carlo Maderno designed the revetment of the Chapel for the Caetani (fig. 11.34), a family that traced their heritage back to the Republic, within the shell of an antique oratory in S. Pudenziana around 1600, he competed almost directly with the fourth-century Basilica of Junius Bassus (figs. 2.55-6), still substantially intact and a stone’s throw away.\(^9\) From Venice to Rome, eruditi coupled the topoi of *ex uno lapide* and “painted stone” to describe the medieval revetment of San Marco, or compared the natural veins in gems to the man-made lineaments in paleo-Christian mosaics.\(^10\) By the 1620s the

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\(^9\) The Basilica still functioned as the church of S. Andrea Catabarbara (or S. Andrea ad Praesepe) in 1583 when the Abbot commissioned designs from Domenico Fontana. It stood until c. 1686: Lanciani, *Storia degli scavi di Roma e Notizie intorno le collezioni romane di antichità*: 4: 66. For the Cappella Caetani: A. C. Cozzi-Beccarini, “La Cappella Caetani nella Basilica di S. Pudenziana in Roma,” *Quaderni dell’Istituto di Storia dell’Architettura* 22 (1975/76): 143-58; Robert Senechal, “The Caetani Chapel in S. Pudenziana, Rome: late sixteenth century chapel decoration,” *Apollo* 142, no. 401 (1995): 37-43; Oreste Ferrari, “Il secondo tempo della Cappella Caetani,” *Antologia di storia dell’arte* 52/55 (1996): 73-79. The chapel was begun in 1590, but after Francesco da Volterra’s death (1594) it was finished by Maderno in 1603. The revetment was executed by G. B. della Porta (until 1597) and Battista Gessi (1597-1601) to Maderno’s designs, though Volterra’s drawings show he planned to marble the chapel: Ferrari, “Secondo tempo,” figs. 2 & 3. The building in which it was inserted, the Oratorio di San Pastore, was a thermal room consecrated to St. Peter in 384-399, containing a mosaic of a shepherd between two sheep (eradicated in c. 1590): Antonio Petrignani, *La Basilica di S. Pudenziana in Roma secondo gli scavi recentemente eseguiti* (Vatican City: Pontificio Istituto di Archeologia Cristiana, 1934); Giovanni Battista De Rossi, “I monumenti del secolo quarto spettanti alla chiesa di S. Pudenziana,” *Bollettino di archeologia cristiana* 5 (1867): 49-60. This prehistory is more or less ignored in publications on the chapel.

\(^10\) “I parieti poscia, overo muri di questa Chiesa sono tutti all’intorno così di dentro, come di fuori incrostati, coperti e vestiti di finissimi marmi in tavole ridotti, con le lor venne, et macchie, che talmente à vicenda una con l’altra si corrispondono, e mostrano, che’il muro sia tutto d’un pezzo fabricato, che vermente piüosto depinti, che insieme congiunti paiono”: Giovanni Stringa, *La Chiesa di San Marco; Capella del Serenissimo Principe di Venezia* (Venice: Francesco Rampazetto,
concept that revetment was “eternal painting” had become an oratorial commonplace. By mid-century, compilers of ecclesiastical Latin not only found “Cappella” to be synonymous with a richly encrusted chapel, but defined any decorative motifs as “emblemata” – those mosaic panels that had always imitated easel-painting.

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1610): 20v. “But now fix your eyes, if you will, on this jasper variegated and mottled by nature herself with green and purple colours. Observe how judiciously, how agreeably the discerning carver has imitated the multicoloured bird in the variegated stone. Oh object that cannot be admired enough! In this unique, multi-hued jasper the extraordinarily skillful artist has essayed that which mosaicists represented with many, little stones of various colours in the excellent, most ancient churches of SS. Cosma e Damiano, S. Prassede and S. Cecilia” (“Sed oculos nunc, si placet, in hunc iaspidem coniice, viridi purpureoque coloribus a natura ipsa variegatum atque interstinctum. Aspice quam apposite, quam congruenter discolori lapide multicolorem avem imitatus sit prudens anaglyptes. O rem quam numquam satis admirire! Unico in hoc versicolori iaspidi molitus est egregiae solertiae artifex id quod multis variorumque colorum lapillis in SS. Cosmae et Damiani et S. Praxedis et S. Caeciliae templis eximii antiquissimique effinxerunt musivarii”): Ignatius Braccius, Phoenicis effigies in numismatis et in gemma quae in museo Gualdino asservatur et parietibus indicata et eiusdem avis vindiciae (Rome: Vitale Mascardi, 1637): 6. For the antiquarian Gualdi, and his collection: Claudio Franzoni and Alessandra Tempesta, “Il museo di Francesco Gualdi nella Roma del seicento tra raccolta privata ed esibizione pubblica,” Bollettino d’Arte 73 (1992): 1-42.

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101 E.g. Michelangelo Buonarotti the Younger’s funeral eulogy of Grand Duke Cosimo II in 1621 applauds his marble patronage in the following terms: “Sarabbe sufficiente à far [passar oltr’à tutti i mari la fama del signor nostro], l’aver egli dietro il più che umano pensier del padre progessuito nell’opera di quella fabbrica [Cappella dei Principi], di quel tempio [S. Lorenzo], che a poter innalzarsi fu di mestieri (siami lecito dir un vero alle future genti incredibili) di penetrare, e di fendere i monti delle più lontane parti del mondo. Questa che tutta di pietre preziose, e con ispesa non più sentita deve (come non poca parte già se ne vede) tutta incrostarsi, è stata cagione che gli uomini anno trovato modo di far la pittura eterna,” Michelangelo Buonarotti the Younger, Delle Lodi del Granduca di Toscana Cosimo II di Michelagnol Buonarotti. Recitata dà lui nell’Accademia Fiorentina il di 20. di Dicembre 1621 (Florence: Pietro Cecconcelli, 1622): 33-34.

The Spada Chapels in S. Andrea della Valle (1631-32) and S. Girolamo della Carità (1654-7)

The shift in thinking from chapels that were paneled like jewel-boxes, via the paragone, to an architecture intrinsically “painted,” was decisively pioneered in a scheme that remained on the drawing board: the Spada Chapel in S. Andrea della Valle. The ideator, Virgilio Spada, was a career cleric, with a keen eye on both the practicalities and poetics of construction. Here, as elsewhere, he relied on trained architects to execute drawings and eventual construction, but the initial concept was his. He later appears alongside Bernini at crucial junctures in the baroque reinvention of marble incrustation and even played some ill-defined role in the Cornaro Chapel’s inception.\textsuperscript{103} Fortunately, he also kept copious notes and drawings.

In 1631 Spada was busy planning the decorations of a chapel, in S. Andrea della Valle, which he had still not been officially conceded. From the outset he wished to invent a décor radically different from the other recent and well-appointed chapels in the church, but this departure was to be of a conceptual, rather than material order. Spada’s proposed chapel must be marbled and decorated with reliefs precisely because the other chapels in the church, which had been decorated in the years previous (1603-1616), already filled clear categories of decoration: all marbling; all painting; and statuary-and-painting.\textsuperscript{104}

\textsuperscript{103} He was paid 632.40 Scudi by Cardinal Cornaro on 20 January 1647: Caterina Napoleone, “Bernini e il cantiere della Cappella Cornaro,” \textit{Antologia di Belle Arti} 55-58 (1998): 175 and doc. 1. Napoleone implicates Spada in the early design of the Cornaro Chapel, but the money could just as well be a repaid loan. On the other hand, Spada had acquired considerable experience in construction and chapel concession negotiation, would continue to do so, and may have acted as some sort of consultant. For Spada: Joseph Connors, “Virgilio Spada’s Defence of Borromini,” \textit{Burlington Magazine} 131 (1989): 76-90 with bibliography.
Spada felt the onus to establish a new category no less opulent than the other chapels but not competing with the chapel of the reigning papal family, the Barberini Chapel directly opposite, which enjoyed all the arts. The solution was to eliminate painting, absorbing it into the medium of sculpture by substituting canvases with bas-reliefs. Thus, in Spada’s first scheme the chapel was to be completely sheathed in black marble, from Belgium, except for the altar wall where the splendor of marbles and hardstones was to match the glory of the saints (Appendix 11.4a). The liturgical rationale was that altars were

104 The Cappella Strozzi, was marbled in 1605-12 by Bartolomeo Angiolini and Bartolomeo Bassi to the design of the amateur Piero Strozzi: Maria B. Guerrieri Borsoi, Gli Strozzi a Roma: mecenati e collezionisti nel Sei e Settecento (Rome: Fondazione Marco Besso, 2004): 51-65; Alba Costamagna, Daniele Ferrara, and Cecilia Grilli, Sant’Andrea della Valle (Milan: Skira, 2003): 142-50. The chapel, which contains casts after Michelangelo’s Pietà, Rachel and Leah, seems to have been conceived as a manifesto of Florentine style. It contains features, like the intarsiated stemme in the pendentives, which are otherwise unknown in Rome, and the marbling resembles more the Cappella de’ Principi than anything in Rome. The Cappella Rucellai was decorated in 1603-5 by Matteo Castello da Melide and Francesco Rossi for Orazio Rucellai. The Cappella Barberini begun in 1604 by Cardinal Maffeo Barberini (Urban VIII) and consecrated in 1616. Designed either by Matteo Castello da Melide, Maderno, or Ponzo, its marbling is by Bartolomeo Bassi and Domenico Marchesi. Spada’s chapel was not finally decorated until 1671-76, on the bequest of Cardinal Marzio Ginetti and to the designs of Carlo Fontana: Costamagna, Ferrara, and Grilli, Sant’Andrea: 69-194 with bibliography.


106 Spada’s sketches have long been known but the explanatory memorandum has so far escaped attention. For the history of the project, with some strange omissions and errors: Heimbürger-Ravalli, Architettura: 75ff.

communion tables over martyr’s tombs and Scripture pronounced that “His Sepulchre shall be Glorious” (Isaiah 11.10). The other remission from gloom was to be the white narrative reliefs on the sidewalls that, whose brilliance would seize the attention of the faithful. The scheme went unexecuted although it may later have been informed the lugubrious decorations of the Accoramboni chapel in S. Andrea delle Fratte (1661-73; fig. 11.35).

Spada extols black marbles for their obvious funereal propriety. But since all black stone was generically called “paragone” (the term Spada uses too), and because of his musings on decorative genres, it would be extraordinary if the theory of the paragone did not lurk at the back of his mind. Some years later Spada’s protégé, Borromini, knowingly played on this inescapable pun when he described the portal to the Oratory as “ornata di pietra di paragone, lavoro senza...”

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107 See Chapter 8. The inscription “Erit sepulchrum eius gloriosum” occasionally appears on altars. The reliquary symbolism of the altar is epitomised by St. Ambrose (when laying to rest matyrs’ remains under the altar of S. Ambrogio Milan) – “Succedant victimae triumphales in locum ubi Christus hostia est. Sed ille super altare qui pro omnibus passus est. Iste sub altare, qui illius redempti sunt passione” (Ep. XXII, 13; PL 16, col. 1066). Clement VIII had reaffirmed the importance of the depositio of relics in the altar during its consecration in the Pontificale Romanum of 1596 (pp. 211, 274) – “Pontifex parat reliquias in altari consecrando includendas ponens eas in decenti et mundo vasculo cum tribus granis thuris”: Godefridus J. C. Snoek, Medieval Piety from Relics to the Eucharist: a Process of Mutual Interaction (Leiden: E.J. Brill, 1995): 186 with bibliography.

paragone in Roma” (“adorned with touchstone, a work without peer in Rome”). One of Spada’s own drawings for the chapel betrays his preoccupations, because a bas-relief is shown hanging from sculpted cords just like an easel painting in a drawing room (fig. 11.36). In other words, the reliefs were stone paintings.

The paragone became the more overt conceptual armature for Spada’s next scheme. As Spada recounts, because he wanted something “out of the ordinary, he came to the idea that the marble composition should form a perspectival view, with the hope that the variety of colors of the marbles could represent the subject no less than the colors of painters” (appendix 11.4b). He even decided on the famous Bolognese quadratura painter Girolamo Curti (called “Il Dentone”) to design the scheme, but the artist died the following year. Moreover, Spada’s fidelity to painting by other means was such that he recommended that flat pilasters be imitated in the reliefs of the sidewalls rather “than round columns, due to the difficulty of finding in the marbles the shadows of the columns.” He also wished the painter to paint a full-size cartoon on which masons could assemble a jigsaw of marbles to match the pigments. His imitation of painting could not be more explicit, but the emphasis was on a painted architecture for he specified that no “animals, trees, men” are other figural elements intrude into the


110 BAV, Vat. lat. 11258, f. 20; Heimbürger-Ravalli, Architettura: fig. 64. Spada resumed the conceit for the tondo of the Virgin in the chapel at S. Girolamo della Carità.

111 On rilievo and painting: Ostrow, Art: 329-64.

composition. Any such additions were to be autonomous bas-reliefs in white marble.

This scheme was also never built, and when Spada returned to the project after a thirty-year gap (1662) he died before any start could be made. However, a drawing does survive for the final scheme (fig. 11.37), one which he proudly showed to Alexander VII, and one which shows how much Spada was finally indebted to the side reliefs of Bernini’s Cornaro Chapel (fig. 11.44). His major departure from Bernini’s colorism, as the surviving marble specifications demonstrate, was a palette of buff and grey marbles and it is clear that tonal chiaroscuro now preoccupied his vision of imitating painting.

Spada’s only lasting contribution to the marble chapel genre was instead the family chapel he had executed in S. Girolamo della Carità (1654-7) to the

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designs of Borromini but again to the patron’s own symbolic agenda (fig. 11.38). On its walls Neapolitan *marmisti* lavished the techniques of marquetry, even passing the stones over hot irons to tone them, despite his earlier criticism of the intarsie in the Cappella Gregoriana and Cappella Clementina at St. Peter’s as the “work of ebanists.” The *concetto* was both novel and traditional (Appendix 11.6). Spada specified that he wished “to represent the chapel as an upholstered room because in ancient times chapels were called cubicula sanctorum.” The whole concept hinges upon the pun contained in this conscious archaism, that chapels are “bedrooms” of the saints, and Spada’s simulated damasks gave shape to the “sleep of death” with a sacred bedroom, a true “chapel of repose.” The chapel was to be dressed with marble inlays based on the embroidered silk pilaster hangings of S. Maria in Vallicella, the mother church of Spada’s affiliate order, the Oratorians. By the late sixteenth century, the idea of replacing woven silk *paliotti* (altar frontals) with permanent substitutes in stone was also becoming

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the norm and Baronius had extolled their ability to ennoble the relics within.\textsuperscript{118} Moreover, the manner in which Della Porta and others had sunk their marble inlays into piers and pilasters, leaving the lip proud around its edge, had tended to transform the pier into a mere frame for a sacred tapestry.\textsuperscript{119}

In the Spada Chapel, the wall hangings also materialize in three dimensions in the balustrade, supposedly a woven corporal slung between two angels. Spada’s \textit{concetto} found few followers in Rome, although the metaphor of revetment as brocade became extremely diffuse in Naples and Sicily, and its eighteenth-century acme is the Gesuiti in Venice (fig. 11.39; marblework c. 1714-35).\textsuperscript{120} Spada’s decision to imitate embroidered hangings in this chapel may seem a complete departure from his earlier and later projects to imitate painting in stone, but such detailed intarsie had been considered painting since at least Pliny’s invectives against \textit{opus sectile} and Daniello Bartoli talks of wood inlay in the same terms (Appendix 11.7).

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\textsuperscript{119} Bellini, “Costruzione,” 337-38.

Chapter 11: From Gems to Clouds

Early Projects by Bernini (1634-43)

Spada’s early designs for S. Andrea della Valle had come to nothing, but their rich promise was fulfilled and transformed by Bernini in a string of projects from the 1630s and 40s. At St. Peters, Bernini decorated two highly important chapels in the basilica, the Cappella del Santissimo Sacramento (1634) and Cappella della Cattedra Petri (1637), for the permanent residence of the Sacrament and St. Peter’s throne respectively. To highlight the otherworldly character of the focal objects, the first the True Presence the second the relic of Christ’s vicar, and so the unbroken chain of divine authority all the way to the reigning Pope, Bernini devised backgrounds in alabaster intarsie of clouds parted by divine light (fig. 11.40). The formula was repeated on the reliquary balconies on the crossing piers (1640-41; fig. 11.41), which housed the basilica’s most precious relics and were the site of their Easter ostension. In the contemporary High Altar of SS. Domenico e Sisto (1636 - c. 1640) we likewise find sunset skies in giallo antico with incandescent clouds in Alabastro Nuvoloso, this time encircling the miracle-working Madonna del Tempietto. In each case,

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123 Hitherto Bernini’s paternity of the high altar in SS. Domenico e Sisto is only accepted (with a dating c. 1636-40) in Maurizio Fagiolo dell’Arco and Marcello Fagiolo dell’Arco, Bernini: una
the artifice signified a paradigm shift. They focus of each display was not a historical relic but an object of otherworldly provenance and a fragment of divine time. The sense of irruption into the human realm was therefore conveyed by celestial and revelatory backdrops which owed much conceptually to the painting of Caravaggio and Lanfranco, and materially to the genre of paintings on stone and the new fashion for a revetment that was “eternal painting.” It is hardly coincidental that Bernini’s pupil, Carlo Fontana, would execute the first marbled cupola, in cloudy alabaster, in the same church in which Lanfranco had dissolved the main dome (1625-8) by painting ranks of luminous cloud, culminating in a lantern that seemed to descend though it like a foreign body.\textsuperscript{124}

The architectural prototype par excellence was, however, the earlier altar of the Cappella Paolina in S. Maria Maggiore (1611-13; \textbf{figs. 11.21}).\textsuperscript{125} Designed by a committee, including even the Pope supposedly, the altar again housed a miraculous icon of the Virgin again attributed to St Luke.\textsuperscript{126} To express the icon’s

\textit{introduzione al gran teatro del barocco} (Rome: M. Bulzoni, 1967): cat. no. 87. It is attributed to Bernini by a nun resident in the convent at the time of its construction who wrote her memoirs sixteen years after the facts (1652), Madre Suor M. Domenica Salamonia (1596-1672). Bianca R. Ontini, \textit{La chiesa di S. Domenico in Roma} (Rome: Edizioni Cateriniane, 1952): 129ff.; Virginia Bernardini, Andreina Draghi, and Guia Verdesi, \textit{SS. Domenico e Sisto}. (Rome: F. Palombi, 1991): 69-74. Only the superstructure is decidedly un-Berninesque and this may be due to modification in execution, almost certainly by Nicolò Torriani (or possibly his brother, the better known Orazio).


\textsuperscript{125} Ostrow, \textit{Art}: 118-83, esp. 42-67 with bibliography.

\textsuperscript{126} The architect Girolamo Rainaldi in collaboration with the gentleman architect Giovanni Battista Crescenzi, the painter Antonio Tempesta and the goldsmith Pompeo Targone. For the Pope’s contribution see below.
supernatural character it was detached from its aedicule with a separate frame, borne by gilt bronze angels, floating against a field of lapis lazuli slabs, which the original contract stipulated should be “set together in such a way that they feign the air.” The aedicule around it was also likened to a window. It must also be added that in one unexecuted design for the altar (fig. 11.42) the image of clouds parting was also intended, as is clear from the stridently veined sheets of alabaster meant to sheath the wall behind the aedicule and render it optically freestanding. Bernini almost certainly knew this for he expressed his appreciation for the altar in a dialogue of 1633, and copied the central panel in an extremely abbreviated form in his later high altar of S. Maria in Via Lata (1639-43).


Architecture as Painting: the Cornaro Chapel (1647-52)

The culmination of Bernini’s early experiments in the pictorialisation of colored marbles was the Cornaro Chapel, of 1648-53 (figs. 11.43-47). Here the artist decisively made the represented architecture of Spada’s unexecuted chapel, that is marble paintings of architectural views, step out of its frame to synthesize marmi mischi into a truly “painted architecture.”

Unhappily, Chantelou never asked Bernini for his views on colored marble architecture, nor did his biographers deem it worthy of discussion. All we can be sure of from primary sources is his passing praise of a few marbles, and his son’s comment that, “in matters of architecture, the Cavaliere religiously instructed his pupils that it was first necessary to reflect on the materials,” and only then their arrangement and perfection. Contemporary comment on his aspirations in the Cornaro chapel is also disappointingly brief, so we are extremely fortunate that a suite of contemporary sonnets has recently come to light, possibly written for the chapel’s inuaguration, almost certainly by an

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133 Domenico Bernini, Vita del cavalier Gio. Lorenzo Bernino (Roma: Rocco Bernabò, 1713): 39: “E come che il Cavaliere dava per documento a’ suoi Discepoli in materia di Architettura, che prima bisognava riflettere alla materia, indi all’invenzione, poi all’ordinazione delle parti, e finalmente a dar loro perfezione di grazia, e tenerezza.”
aficionado of the artist, and which supply an extremely sophisticated commentary that will be adduced where appropriate.\textsuperscript{134}

At the Cornaro Chapel, Bernini’s brief was to commemorate a family renowned for its services to the church over generations and represent a Counter-reform saint and mystic famed for her visions.\textsuperscript{135} His solution was intentionally visionary. From the side walls, we are greeted by a parade of Cardinal Cornaro’s illustrious forebears in holy offices, in spectatorial balconies like those at the crossing of St. Peter’s occupied by VIPS at canonizations, and united in death in a manner they could never have been in life (\textbf{fig. 11.44}). At the chapel’s heart, the most famous passage from St. Teresa of Avila’s spiritual autobiography materializes, the moment when an angel appeared to thrust a burning arrow into her entrails and she felt herself lifted beyond this world to spiritual union with God (\textbf{figs. 11.43, 45}).\textsuperscript{136} This union is communicated both by the airborne angels toying with garlands like bridesmaids and the painted illusion that divine light has pierced the vault, the frescoed clouds rolling away man-made construction to reveal the upper and inner heaven. As for the statue itself, this massive marble block appears both to disperse and float through its


\textsuperscript{135} In 1614, Cornaro had written of his dreams to leave a memorial both to his own usefulness and that of his forebears (“poter anch’io un giorno lasciar qualche memoria di me in utile servitio et honorevolezza della casa”): Barcham, “Some New Documents,” 821.

own dedicated space. It is as though Bernini had taken Michelangelo’s Pietà off its pedestal only for the statue to take flight. In fact, the technical ingenuity involved in accomplishing the illusion that St. Theresa levitates on a cloudbank fifteen feet above the chapel floor is rarely remarked. To make her *tempietto* the chapel wall had to be partially demolished, then reinforced, and a large brick box corbelled out from the transept wall over the flanking alley.\(^{137}\) The statue itself projects back into the chapel, effectively a cantilever-off-a-cantilever, and had to be meticulously hollowed out by studio assistants to diminish its weight and prevent the entire structure caving in.

All these measures were necessary to stage a vision, one that would preempt just an aesthetic response: Bernini’s artifact was not to be regarded as simply a “statue.” Indeed, if the chapel’s effect depends on blurring the divisions between the arts it is precisely by calling into question the very genres to which they ought to belong. Thus, the *Teresa* defies categorization in the critical language both of Bernini’s time and our own. It is neither a freestanding statue nor a bas-relief, but what one might call a “deep painting,” a painterly vision in a volumetric frame. This definition becomes easier to visualize if we consider Melchiorre Cafà’s reinterpretation of the *Teresa* just over a decade later, at the other end of the same street, above the High Altar of S. Caterina da Siena a Largo Magnanapoli (c. 1662-64; *fig. 11.48*), where the shimmering *St Catherine in Glory*

\(^{137}\) In 1647 Bernini received the licence necessary: Enzo Bentivoglio, “Due libri di patenti dei “Maestri di strade” di Roma degli anni 1641-45 e 1646-54. I Mss no 131 e no 142 dell’Archivio Doria Pamphili (II),” *Quaderni PAU* IV, 8, 2, no. 2 (1994): 23 (no. 120).
is (re)embedded in a relief of alabasters and lapis, itself obviously borrowed from Bernini’s “eternal paintings” in the reliquary balconies of St. Peter’s (fig. 11.41).\textsuperscript{138}

As Preimesberger convincingly formulated in a seminal article, Bernini’s early statues had consciously striven to circumvent the traditional criticisms of the \textit{Paragone} that sculpture could not capture effects typical of painting: smoke, softness, shifting light, movement, and so on. The genre Bernini instead developed, under the auspices of his father Pietro, constituted a sort of “sculpted painting,” striving to suggest effects that would defy a material as apparently unrelenting as stone: supple and warm flesh, the color and sheen of hair or the delicate tracery of a sapling.\textsuperscript{139} To do so was to liberate the statue from its earthbound material and access a world of metaphorical communication. Thus, in the \textit{Ecstasy of S. Teresa} the carving contrasts the saint’s weighty habit as it cascades towards earth with the gossamer delicacy of the angel’s robe swept by a divine breeze. Or, as Lavin has suggested, the flame-like folds engulf her body and seem to consume it,\textsuperscript{140} and the angel therefore resembles heaven-spiraling

\textsuperscript{138} Leandro Ventura, “Un bozzetto barocco riscoperto: una nuova attribuzione per Melchiorre Cafà,” \textit{Ricerche di Storia dell’arte} 45 (1991): 77-84. Cafà died in 1667 and the altar wall was completed in 1672: Mario Bevilacqua, \textit{Santa Caterina da Siena a Magnanapoli: arte e storia di una comunità religiosa romana nell’età della Controriforma} (Rome: Gangemi, 1993): 97, n. 7. Titi’s 1674 edition credits Cafà with the whole design: Bruno Contardi and Serena Romano, eds., \textit{Filippo Titi. Studio di pittura, scultura, et architettura, nelle chiese di Roma} (1674-1763). \textit{Edizione comparata}, 2 vols. (Florence: Centro Di, 1987), 1: 146. The central aedicule is simply derived from the Cornaro altar. However, architecture by Cafà is unknown and the altar wall is very close to the style of Carlo Rainaldi (e.g. Gesù e Maria, Altar of S. Antonio da Padova, SS. Apostoli, etc.), with whom Cafà had collaborated elsewhere (S. Agnese in Agone, S. Maria in Campitelli).


vapor by comparison. That the stones of the surrounding architecture should
also evoke fire or light-filled cloud were essential themes of the chapel,
embodying the consummation of Teresa and the luminously nebulous reward of
the soul. The journey into such associative apposition begins at the altar rail (the
normal limit of the laical observer’s touch) where a particularly hot and
“flaming” slab of Breccia di Sciro is juxtaposed with a black lacquered door on
which floating, gilded hearts visibly flame, the invocat that opens a series of
emotional responses to the peculiar conjunction of pain and ecstasy that lies at
the centre of the chapel: Teresa’s transverberation as she is repeatedly stabbed
through the heart by an angel wielding the arrow of divine love.

But, above all, Bernini was celebrated for his ability “to carve color,” that
is to suggest various hues by various degrees of finish and polish as well as a
“painterly” carving of the block. One of the aforementioned sonnets is explicit on
this point when describing the Cornaro busts on the side walls:

_To the spectator._
_On the marvelously carved clothes of the same cardinals._
_Look how, under their purple garments,
The great souls and magnanimous prayers of the fathers ennoble the theatre._
_Behold, their brilliance is reddened by a secret dye,
While those who wear the holy purple shine forth in Parian marble._
_But why do you wonder that an artist has carved colors,
When the soul of all these heroes is carved here too?_141

_Moreover, the now mobile, pedestal-less Teresa traverses her own space
with its own shifting light source constantly playing over the faceted surfaces, as

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_141 “Spectatori. / De vestibus eorundem cardinalium affabre exculpts. / Cerne ut nobilitant Tyria sub
veste theatrum / Ingentes animae votaque magna patrum. / En rubet arcano spectatus murice candor, / Cum lapide in Pario purpura sacra patent. / Sed quid miraris fabrum sculpsisse colores
/ Quando tot heroum sculptur hic anima?”_
well as suggesting the light of revelation (lumen) and a Godhead of supercharged brightness (lux) somewhere offstage. Another sonnet extols Bernini’s Godlike ability to recreate light in a small world with its own sun:

The sun, through skillfully devised access-points, is intended to illuminate the effigy as desired.

Oh Sun, where have you ever seen the rays of your light more happily fall than when, penetrating these marvelously constructed roads and honoring the mission entrusted them, they venerate the Saint according to Bernini’s will, and provide the illumination accomplishing a splendid task according to the rule established? Where could the shining kisses of the sun be fixed in a more splendid manner? From which brow more dignified have they reverberated, the rays that repay your face with more profit, oh Phoebus? You owe it to Bernini that the light renders you this enormous service. You will go more illustrious, with him as your artificer, than you once did thanks to the speaking statue of Memnon: the Saint would [also] speak animated by these eloquent rays, had her voice not been [already] suffocated by the eclipse of love

The indefinability of the central sculpture, the impossibility of confining it within a particular artistic genre, and the conceptual leap in regarding it as a form of painting, opens the same door to reinterpreting the architecture at large. It was a natural sequitur that Bernini capitalize on the status of marmi mischi, a medium that offered a threshold between the plastic and the pictorial arts, to make the Cornaro Chapel into an inherently “painted architecture,” not just an attractive loop-hole in the Paragone but a new, embracing category. One might also say that the absence of an altarpiece and any color at the heart of the chapel


143 “Sol per aditus rite machinatos cogitur ex voto simulacrum illustrare. / Quonam vota tuæ lucis meliore beari, / O Sol, sorte vides quam, cum penetrata recessus / Mire molitos, præscripto munere divam, / Bernino statuente, colunt, ut splendidida praestent / Officia, atque data famulentur lumina lege? / Quo praeclara magis potuerunt fulgida Solis / Oscula defigi? Quanam de fronte recussi / Plus digna radii maiori fœnore vultum, / Phœbe, tuum repetunt? Ðebes hæc maxima lucis / Munia Bernino. Hoc fabro tu illustrior ibis / Quam olim facundo simulacro Memnonis esses. / Diva loqueretur radiis animata disertis, / Si vox deliquís non arceretur amoris.”
in fact necessitated a painterly approach to the remainder. Furthermore, this approach offered the reward of a reciprocal dialogue in which the “natural art” of the revetments proved the artifice of the statue, highlighting both the purity of Teresa and Bernini’s art.

Bernini’s precedent for this polarity was clearly Maderno’s S. Cecilia and her enveloping frame (**fig. 11.24**). In the vertical coloristic progression, however, he could only have looked back to Raphael’s Chigi Chapel (**fig. 9.36**), which Bernini himself would now complete (1652-1661). The Cornaro Chapel vaunts analogous, carefully calibrated transitions through an autumnal palette from dark grey, through warm browns and ochres, blue-green, and on to the limpid fresco sky above. In other terms, from earthy to vaporous, or from terrestrial to celestial, or from death to resurrection. Like the Chigi Chapel, white Carrara moldings pick out various horizons and the tectonic knuckles of capitals and bases. Unlike the Chigi Chapel, however, no vertical elements are white: the columns are in africano, the dwarf order of applied pilasters in verde antico. A variety of moldings, some doubled, frame the colored panels but they do not compose an autonomous and coordinating skeleton. As a result the panels do not read as inset, and therefore subtractable.

Instead Bernini weaves the wall together with a strategy of alternation and color contrast that had been the basis of marble revetment since antiquity (see Chapters 2, 4). Reds, yellows, and blacks are drawn from the foreground to the background, and vice-versa, exploiting the principles of primary color contrast. Figure and ground are exchanged. The most obvious case is the black fluting over Giallo antico at the chapel entrance, inverted on the altar wall where the lateral alabastro nuvoloso panels are outlined by black piping (**fig. 11.45**).
Bernini can be said to deploy his marbles in a painterly fashion as well. The back wall of the chapel is already a “canvas” thanks to its colorist grading, in marked contrast to the colorfulness and scatter-gun effects of the late cinquecento chapels, and early seicento ones like those in the same church. Bernini also juxtaposes color fields to allow them to vibrate and encourage the eye to roam from one to the other. Without the segregation of a neutral structural frame, light and dark veining “bleeds” from one stone into another like the brush trails of wet-in-wet painting (fig. 11.47). In pictorial terms, it is almost equivalent to using the darks as the uniting factor in the composition. The main trabeation, the lateral reliefs and tympanum are also not marble but painted with utterly deceptive skill to imitate it, so the idea of marble as paint was never far from actual execution.  

Not only did the richly quivering surfaces interweave a “variety of varieties,” they represented the substantiality of the wall on a sub-tectonic scale. In this sense, the “painting” of the wall does not serve hermetically metaphysical ends. Rather, the painterly evocation of an unbound and mobile substance becomes a medium between immanence and transcendence. The substantial image of marble surfaces from the range of marble techniques used throughout the chapel, but also the juxtaposition between the illusionistic and the non-mimetic. The art of joining inlay is vaunted bone-by-bone in the intarsiated skeletons, one hands joined in prayer and the other hands spread in 

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144 The bas-reliefs behind the Cornaro portraits are molded in colored stucco to imitate bardiglio (greyish marble); the main architrave is painted in true fresco with the cornice faux-Pentelic and the frieze faux-giallo antico cornices are: Napoleone, “Bernini,” 178. Coloured stucco lustro was unusual in Rome but common in Venice. Perhaps the artisan responsible was Lazzaro Morelli, whose mother came from a long line of Venetian craftsmen: Carloni, “Cappella Cornaro,” 45.
adoration, that rise through illusionist manholes in the ashen floor. The mimetic properties of marble are given free reign in the sham side-doors, which are fashioned from a costly *alabastro fiorito* that assumes an unheralded humility by imitating the knotting of walnut or olive-root (fig. 11.46). The carved *Giallo antico* and *Nero antico* drapes on the side walls, whose agitated contrast-contrast only further animates the almost tangible group of Cornaro luminaries above, are also subjugated to the purposes of imitation. Similarly, their *diaspro* cushions are sliced and bedded to capture the sheen of velvet or taffeta.

And in all these cases the material has lost its intrinsic preciousness, and the image of its own “geological” properties, because these are subjugated to the needs of mimesis. However, as our eyes infiltrate the farther reaches of the chapel, via the performative models of the Cornaro family in slow-motion debate, and reach the great backdrop of the altar wall, the material metaphors of the sidewalls give way to more visionary qualities, to nebulous substance, the expression of light and finally the candid vision of St. Teresa. To put that another way, we travel from the realm of the haptic to the range of insight. For, as our eyes scan this back wall the marbles become gradually more infused with light until they culminate – much like Maderno’s earlier S. Cecilia – in the flickering and absolute whiteness of the *Carrara* Teresa and the light of Grace which materializes into the golden rods fanning the statue. Here, at the chapel’s heart, architecture becomes sculpture; plane becomes volume, at the point where the wall paradoxically peels to reveal the vision; a tempietto emerges from cloud and – in an embracing summation of the *Paragone* – all the effects of flesh, rough habit and gossamer robe, vapor and substance, warmth and color, repose and movement are extorted from one color-less mass, *ex uno lapide.*
Yet, however far Bernini’s innovation in mixing genres may have gone to proving the versatility of “sculpture” (as well as personal virtuosity), the larger point seems to be this: that all the vivacità and fragmenting of the colorist foil point to a unity which is somewhere else, and immaterial. The chapel’s knowable texture seems to contain the seeds of its own dispersion, but conversely all this dissembling is reconciled into an inner and unitary, intersticial and secondary order, somewhere below the skin or somewhere within it. The figural metaphor for such dispersion and condensation was the leitmotiv of cloud, a theme on which Bernini had had every opportunity to reflect in his projects of the 1630s and 1640s. On the back wall of the Cornaro Chapel, which is the most visionary and liminal of all, the unifying element is the cloudy membrane that drifts across and through it: from the chiseled clouds below the saint to those swirling smoke-like patterns trapped in the alabastro nuvoloso on either side. Even in the cloud-vessel behind the statue, the stucco is painted to imitate alabaster.

But dispersion and condensation depend not only on the evocation of the stone’s ability to foreground an image of its own nature, an image of generation and transmutation from earth to liquid to vapor, but also on the metaphor of painting and the mobility of pigment to suggest that the innate painting amounts to a fluidic medium. This coupling arises out of yet another of the sonnets, and the only contemporary comment to have come down to us on the Cornaro Chapel’s colored revetment:

To Bernini again.
On the stones, and especially on the mottled ones, which are marvelously disposed in the same Chapel of Saint Teresa.
Your stones, which will distinguish the theatre
With their various titles, grow bright by proud prayers.
And we should not blush that blemished materials compose this
immaculate mass,
If a handsome plague shines out of the precious shadows,
When you command the blots to serve sacred brilliance.\textsuperscript{145}

The subtext to only the last couplet really requires clarification, where the poet describes the mottled marbles as a \textit{formosa lues}, or “handsome plague.” \textit{Formosa} means “beautiful” in the sense of something that is “shapely” or “finely formed,” while \textit{lues} can mean either “plague” or “fluidity.”\textsuperscript{146} Besides the obvious contrast with Teresa’s unblemished soul, “fluidity” might again recall longstanding perceptions of the geological birth of stones. But the blotchy disfigurements of “plague” are far too derogatory an image for any encomium until one realizes that in Seicento art criticism, the word was shorthand for the disgregation of form that resulted from tenebrist chiaroscuro.\textsuperscript{147} For several critics the term was pejorative but for artists like Bernini it invoked the related principle of the \textit{macchia} (Latin \textit{macula}), or “blot.” The \textit{macchia} shared the connotations of unmediated invention inherent in \textit{gestalt} blots and stains, which reached back to Leonardo, and hence suggested unmediated invention, facility, fantasy and, of course, painterliness. Thus, Bernini told Chantelou,

\begin{quote}
that in the composition of big works it was necessary to think in masses – he said \textit{delle macchie} – it was best to draw the figures on a piece of paper and then cut them out and place the different masses to make a loose composition for the
\end{quote}

\textsuperscript{145}“Eidem Bernino. / De lapidibus et præcipue de maculosis in eodem Sacello Divæ Teresiae mirifice dispositis. / Nominibus variis insignitura theatrum / Exhylarant sese votis tua saxa superbis, / Nec maculosa pudet nitidæ molimina molis, / Si formosa lues pretiosis emicet umbris / Quando iubes sacro maculas servire nitor.”


whole... with any other method the details, which are the least significant part, are bound to predominate.\textsuperscript{148}

Likewise, to portray or depict \textit{alla macchia} was to paint from memory, not from observation.\textsuperscript{149} And the \textit{macchia} summed up the quality of some drawings, and sometimes of paintings, made with extraordinary facility and with such harmony and freshness and in such a way... that it almost seems that they are not made by the hand of the artist, but have appeared by themselves on the sheet or canvas, and they say ‘this is a beautiful \textit{macchia}.’ In stones of various colors \textit{macchia} means that color, which appears more as figure than ground; and for this reason one calls the same stones ‘mottled,’ and it is a beautiful quality of these stones, which makes them so beautiful. And similar to these, one calls \textit{macchie} those different types of colour with which sheets of paper are artificially colored, which are called ‘marbled’\textsuperscript{150}

For Bernini combining the arts by simply bringing them in contiguity would not have been a worthy ambition. Artists had done so already for generations. His ambition, as Baldinucci later theorized, was to fuse sculpture

\begin{footnotesize}
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\item \textsuperscript{148} “\textit{dans la composition de ces grands ouvrages il ne faut faire que des masses, il a dit \textit{delle macchie}, comme qui ferait des figures sur une feuille de papier et les couperait avec des ciseaux et placerait ces diverses masses, comme faisant la composition informe d’un tout… et que ce que l’on ordonne autrement ne se trouvait jamais beau, n’y ayant que le particulier, qui n’est que le moins considérable},” told to Chantelou, 10 October 1665: Milovan Stanić, ed., \textit{Chantelou. Journal de voyage du cavalier Bernin en France} (Paris: Macula L’insulaire, 2001), 247; George C. Bauer, ed., \textit{Paul Fréart de Chantelou. Diary of the Cavaliere Bernini’s visit to France} (Princeton: Princeton University Press, 1985), 283-84.
\item \textsuperscript{149} “\textit{Il ritrarre senza il naturale, a forza di memoria dell’Artefice}”: Baldinucci, \textit{Vocabolario}: s.v. ritrarre alla macchia.
\item \textsuperscript{150} “\textit{per esprimere la qualità d’alcuni disegni, ed alcuna volta anche pitture, fatte con istaordinaria facilità, e con un tale accordamento, e freschezza… e in tal modo che quasi pare, che ella non da mano d’Artefice, ma da sè stessa sia apparita sul foglio o su la tela, e decono; questa e una bella macchia. Macchia nelle pietre di vaji colori, dicesi quel colore, che pare di soprapiù a quello del fondo; e di qui chiamansi le stesse pietre macchiate; ed è una bella qualità di esse pietre, con la quale si rendono più vaghe. a simiglianza di queste chiamansi macchie quelle diverse sorte di colore con le quali artificiosamente son macchiati i fogli, che si dicono marezzati. […] Anche appresso i Pittori usasi questo termine ne’ ritratti ch’essi fanno, senza avere avanti l’oggetto, dicendo ritrarre alla macchia, ovvero questo ritratto è fatto alla macchia}”: Baldinucci, \textit{Vocabolario}: s.v. macchia.
\end{itemize}
\end{footnotesize}
and painting, just as he handled marble “as if it were wax.” Not surprisingly, Baldinucci also coined the definition of the *bel composto* that still dominates Bernini studies, and literature on the Baroque in general.\(^1\) Baldinucci asserted that “Bernini was the first to attempt to unite architecture with sculpture and painting in such a manner that together they make a beautiful whole [*bel composto*].”\(^2\) But in Domenico Bernini’s biography of his father, the phrase instead refers to the artist’s capacity “to unite together the fine arts of sculpture, painting, and architecture, in such a way that he formed within himself a marvelous composite [*maraviglioso composto*] of them all.”\(^3\) In other words, Bernini was the *bel composto*.

Whichever definition was in reality closer to Bernini’s own theoretical preoccupations, their parallelism holds suggestive implications for Bernini’s interstitial, embodied and fluidic architecture at the Cornaro Chapel. This potential is best appreciated in the comments that his arch-rival, Borromini, made on the only tomb he designed in colored marble, shortly after the Cornaro Chapel, about 1655-58 (*fig. 11.49*):\(^4\)


\(^3\) Bernini, *Vita*: 33: “che habbia saputo in modo unire assieme le belle Arti della Scultura, Pittura, & Architettura, che di tutte ne habbia fatte in se un maraviglioso composto…”

Since what really stands out in this small work is its firmness, which tricks the eye into believing it is a single block that has been carved out in its entirety at the quarry. The expediency of this artwork also stands out because it is not susceptible to the injuries of time, as are inlays or panels of diverse and subtle little stones: it teaches, as Vitruvius says, that Nature prevails over ornament and, in the end, encloses within itself the qualities of the subject for whom it was made, which in this case is Monsignor Merlino Auditor of the Sacra Rota Romana, whose strength and constancy in administrating the rectitude of justice was combined with the purity and innocence of his personal life. Therefore, a perfect architect would only have erred had he not chosen a red and white stone, wherein the red signifies this prelate’s strength, and the white his innocence.\footnote{Shakespeare would have said that Merlino’s “elements were well mixed,” Domenico Bernini that he was a “marvelous composite.” More importantly, Borromini stresses that all this mixing was negotiated within the same block, \textit{ex uno lapide}.}

\textit{Ex uno lapide} and cloud-architecture: S. Andrea al Quirinale and other works by Bernini

Bernini had made definitive strides away from the bijou world of late Cinquecento Roman chapels, in part thanks to the experience of cladding the

\footnote{\textit{“Poiche spicca in questa picciol opera la sua fortezza, gabbando l’occhio con rappresentargli una sol pietra scarpellata unitamente dalla sua cava. Spicca l’utilità dell’opera non soggetta con commessi, e riporti di varie e sottili petruccole all’ingiurie de tempi: insegna con Vitruvio che la natura prevale à gl’ornamenti, e finalmente racchiude in se medema la qualità del soggetto, al quale è stata fatta, che è Monsignor Merlino Auditore della S. Rota Romana, la cui fortezza e costanza nell’amministrare con rettitudine la giustizia, fù congiunta con la purità et innocenza de costumi, onde sarebbe stato errore di perfetto architetto non sceglier sasso rosso e bianco che col rosso significasse detta fortezza, e col bianco l’innocenza di quel Prelato”: D’Onofrio, \textit{Fioravante Martinelli}: 107-8. The tradition was old. Gregory the Theologian, “who breathed fire from his mouth and consumed every heresy with fire” had been buried in a sarcophagus “of ruddy color, because he who lies in it was ruddy with spiritual beauty, glowing ever in mind and heart with the fire of the spirit”: Nikolaos Mesarites 38.4; Glanville Downey, “Nikolaos Mesarites: description of the Church of the Holy Apostles at Constantinople,” \textit{Transactions of the American Philosophical Society} 47, no. 6 (1957): 890.}
nave of St. Peter’s (1649-50).

There, the recent discovery of a new French marble (Rosso di Francia) and a homegrown one (Cottanello) had permitted the sculptor to reintroduce the gold standard of *ex uno lapide*, and the results, according to Virgilio Spada, made the earlier chapels look like “the work of Ebanists” (Appendix 11.5).

*Ex uno lapide* had not yet ceased to be a criterion of superlative importance: Alberti had recommended that masonry joints should be exact (*ad unguem*), “so that all parts of the work appear equally perfect”; the gored trilobe vaults in bare Travertine that Michelangelo raised over the apse-ends of the transepts of St. Peter’s were so volumetrically intricate that they had to be built twice, but Vasari marveled (probably at Michelangelo’s instigation) that they seemed “all a piece;” Valentino’s description of the Cappella Gregoriana does not fail to mention that all the slabs were polished with pumice and the joins so neat that the walls appeared whole, even in a triumph of meticulous

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158 *De Re Arch.* 6.10, 106v.


160 “Everywhere the raised walls gleam with manifold, mottled marble. This has been cut into slabs, then lightly chiselled (so they are not deformed by any dent, but instead present a uniform
intarsia like Spada’s chapel in S. Girolamo della Carità (fig. 11.38), the patron would still point out that the veneers facing the proscenium arch were, “uniformly made from marble with the veining placed horizontally as though the chapel had been excavated from a block of similar marble” (Appendix 11.6); and Borromini found it necessary to re-invent Roman brickwork so that he could, as far as possible, make the Oratory look as though it were moulded from one block of terracotta.\textsuperscript{161}

In marble revetment such aspirations stood the best chances of success with new marbles. In Bernini’s later Meisterwerk, S. Andrea al Quirinale (begun 1658, marble work completed only in 1672), the initiatives of the Cornaro Chapel reach a fresh plateau of resolution and reconciliation (11.50-53). Here he exploited the two great marbles of the second half of the seventeenth century, Diaspro di Sicilia (Sicilian Jasper) and Cottanello from the Sabina. These were handsome, newly quarried marbles which were plentiful enough to sheathe whole churches, and whose quarries could supply monolithic columns of monumental dimensions. One possibly intended for the church, roughed out but not detached from the bedrock, still remains in the quarry (fig. 11.54).\textsuperscript{162} The

\textsuperscript{161} “se l’edifitio si potesse fare di robba cotta tutta d’un pezzo senza alcuna commiss(ion)e, è certo che sarebbe cosa belliss(ima) horche tal cosa non è fattibile almeno col adoprare robba minuta si rende tanto meno visibile la commiss(ion)e,” Connors, \textit{Opus}: 87.

\textsuperscript{162} Cottanello was already worked in antiquity, as is demonstrated by the two statues of prone lions in the Campo dei Leoni, Venice: Matthias Bruno, “Il mondo delle cave in Italia:
excitable veining and color of Diaspro and Cottanello were also very much capable of raising the devotional temperature, so to speak. Diaspro, in particular, was the apple of Bernini’s eye, “a wonderful stone… highly valued for its beauty… of all modern stones, this is the most beautiful,” a stone “from which he formed the socle for the Cathedra Petri” (1657-66) and which he now urged upon the Jesuits at S. Andrea.  

To comply with ex uno lapide at S. Andrea, the marbles were set as seamlessly as possible and finished at extraordinary expense: being an oval plan, with preponderantly horizontal-format panels, only the sides and back of the slabs could be sawn; their faces had to be dressed into a curve by hand. Yet it would be a mistake to think that Bernini simply hoped to achieve a monolith. The image of entirety to which he aspired was larger than a single building, a heaven on earth whose solidity must be subverted by the liminal metaphor of


cloud. In fact, throughout the church Bernini judiciously selected marble blocks with fairly nebulous veining including the Diaspro panels at attic level, whose typical fire has been further quenched laying the panels with their veins horizontal. Furthermore, where Bernini had his artisans simulate these materials in paint, in the ring cornice and tympanum, they suggest searching cumulus and cirrus patterns. Significantly, it is from the tympanum that the stucco St. Andrew (which the documents specify represents the saint’s “soul”) emanates, or rather materializes.\(^{165}\)

With unlimited supplies of the new stones Bernini could now dispense with the vertical, coloristic progression of the Cornaro Chapel and induce the progression from dark to light, from this world to the next, within the stone itself. An earlier alabaster panel in the painting-on-stone genre is emblematic of this progression (fig. 11.55).\(^{166}\) Light travels down through the veining, which materializes cloud at top, and the earth underfoot at bottom. The stone is literally the middle ground for the subject, a conversion by light.

We, the participants, on occupy a space that is not contained at its perimeter, in which the grey pilasters form a slender cage, like a pergola, bounded by ambiguous veils of cloud (or incense?) curling heavenwards. Conversely, the pilasters absorb, dull out, “earth” the sunburst of ribs that spread from the oculus across the coffered dome.\(^{167}\) This is not to suggest that

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\(^{166}\) Bona Castellotti, ed., Pietra, 138-39 (cat. no. 78). Here said to be late 16\(^{\text{th}}\)-century, though one could entertain a date up until c. 1620.
Bernini meant literally to illustrate this mixing of earth and ether, but rather that he made it a governing metaphor in a transformational architecture where the negotiation was visibly innate and the architecture gave temporary order to *prima materia*. When Athanasius Kircher describes the Aswan-granite *Obeliscus Pamphilius* he considers it almost a ray of solidified light because it visibly displays the four elements intermixed and even a protestant canon in far-off London made the same observation on the great alabaster rota at Westminster Abbey (fig. 11.56). To call the stone cloudy is only to choose the nebulous manifestation that most immediately summons up theophany. One is reminded of how Scotus Eriugena had explained the collaboration of God in human expressivity by using the analogy of the mixture of air with sunlight, an analogy derived from Maximus Confessor:

When sunlight is mixed with air, it begins to be visible. So in itself it cannot be apprehended by the senses, but when mixed with air, it can.” From this analogy you should understand that Divine Essence cannot be apprehended in Itself, but in a remarkable way becomes visible when joined to an intellectual creature, so that the Divine Essence is the only thing visible in the intellectual creature… God will be seen through bodies and in bodies, not in Himself. Similarly,

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167 Giovanni Careri observes that in the Fonseca Chapel “the white ‘heavens’ of the vault are suspended above the reddish ‘earth’ of the pilasters and walls. Yet, as in the [altarpiece of the] Annunciation, the contact between heaven and earth, light and shadow, is not a mere juxtaposition of opposite terms. The white luminous stucco of the ‘heavens’ penetrates into the reddish marble of the ‘earth,’ filling the pilasters and walls with white specks and veins”: Giovanni Careri, *Bernini. Flights of Love, the Art of Devotion*, trans. Linda Lappin (Chicago and London: University of Chicago Press, 1995): 24.

the Divine Essence will appear not in itself, but through intellect and in intellects.\textsuperscript{169}

Moreover, theologically, luminous clouds had always accompanied the theophany because they signified the border and aura of heaven.\textsuperscript{170} If anything they, in fact, proved the proximity of God by clothing an overwhelming splendor that would otherwise have been fatal in its brilliance. In modern parlance, they were as indexical of his actual presence as smoke is of fire. The symbolic palindrome is completed by the fact that clouds were the other major venue for providential images. Ignazio Angelucci describes one particularly architectural apparition in the clouds, which he witnessed on the feast of the Annunciation, in a letter to Athanasius Kircher, and Kircher was so overwhelmed by the description that he decided to include the letter in his \textit{Ars Magna Lucis et Umbrae} (1646).\textsuperscript{171} For these combined reasons, alabasters became especially prized as

\textsuperscript{169} “\textit{cum vero solare lumen aeri misceatur tunc incipit apparere ita ut in se ipso sensibus sit incomprehensibilis, mixtum vero aeri sensibus possit comprehendendi.” Ac per hoc intellige, divinam essentiam per se incomprehensibilem esse, adiunctam vero intellectuali creaturae mirabili modo apparere ita ut ipsa, divina dico essentia, sola in ea, creatura intellectuali videlicet, appareat… Per corpora ergo in corporibus, non per se ipsum, videbitur. Similiter per intellectum in intellectibus, per rationem in rationibus, non per se ipsum, divina essentia apparebit,” \textit{De Divisione Naturae} 1.10; PL 122, 450AB, C.


\textsuperscript{171} “La mattina dell’Assontione della Beatissima Vergine, standomi solo alla fenestra, vidi cose tante e tanto nuove, che ripensarle non mai satio, e stanco. Parmi che la Madonna Santissima facesse comparire in questo Faro, un vestigio quel di, che essa vi entrò. Che sa ancor l’cchio là sù ha, come l’inteletto, lo specchio voluntario, ove vegga ciò che gli piace; quel che ho visto io, posso chiamarlo specchio di quello specchio. Il Mare, che bagna la Sicilia si gonfiò, e diventò per dieci miglia in circa di lunghezza, come una spina di montagna nera; e questo della Calabria spianò, e comparve in un momento un cristallo chiarissimo e trasparente: che parea uno specchio, che con la cima appoggiasse su quella montagna di acqua, e col piede al Lido di Calabria. In questo Specchio comparve subito di colore chiaro oscuro una fila di più di 10.000 pilastri d’uguale lunghezza, e altezza, tutti equidistanti, e di un medesimo vivissimo chiarore, come di una medesima ombratura erano gli sfondati tra pilastro e pilastro. In un momento poi i pilastri si smezzarono d’altezza, e si arquarono in forma di cotesti acquedotti di Roma, ò delle sustrutti di Salomone; e restò semplice specchio il resto dell’acqua, fino all’acqua ammontonata di Sicilia: ma per poco, che tosto-sopra l’arcata si formò un gran cornicione: fra poco spra del cornicione si formaron castelli reali in quantità, disposti in quella grandissima piazza di vetro, e tutti di una
painting supports, and Filippo Neri himself possessed one devotional specimen in his private chapel. In such panels the nebulous personality of this material was so ingrained that Agostino Carracci could paint a *Virgin appearing to St. Francis*, on copper, as paint-imitating-stone-imitating-cloud-revealing the visionary (fig. 11.57).

In other words, the image of the cloud in a slab of *alabastro nuvoloso* provided a recognizable face to a more amorphous sensibility to stone as a shifting medium. Bernini had associated different stones in this way at the Cornaro Chapel. Moreover, in two exactly contemporary chapels, the Fonseca Chapel at S. Lorenzo in Lucina (1662-65), and the De Silva Chapel at S. Isidoro (1660-63), where he overtly used stone to impersonate cloud in one chapel, he used *Cottanello* in the other.

**The De Silva Chapel**

In the contemporary De Silva Chapel (1663; see Appendix), the cloud becomes the explicit medium for the internalized dialogue between the arts (fig. 11.58).^172^ Regardless of materials, clouds compose the backcloth to all figural...
parts, from the *paliotto* to the putti over the altar bearing Maratti's *Immacolata*. The clouds originally extended, in fresco, also to the sidewalls behind the De Silva tombs where hovering putti once toyed with skulls, flowers, and upturned and down-turned torches. In toto, all these fictive clouds coalesce into a divine fog that rubs its back against the picture-plane, analogous to Raphael's *Dresden Madonna* where the extremities also materialize into putti at the outskirts of visibility. Indeed, Maratta's altarpiece is clearly modeled on Raphael's prototype.

The unitary implication is that there is no wall, only a dimensionless hinterland from which the Allegories emerge leaning over a *Diaspro* parapet, while we occupy the centre and are sheltered by a baldacchino (fig. 11.59). Given that this is again a funerary chapel with daily masses for the souls of the departed, we glimpse the *al di là* by feeling out its imminence. This eschatological meaning is arguably specified by the *paliotto*'s allusion to Matthew that on the final day "they shall see the sign of the Son of man coming in the clouds" (fig. 11.60). That is, that on the final day He, the Savior, will become visible. Since the *paliotto* appears below Maratta's *Immacolata* crushing original sin, the ensemble is an incredible symbolic summa, what could really be termed a "brief history of time." The startling clarity of the *paliotto* image in the context of this chapel, and the church as a whole, is highly important because this chapel is only a few feet away from one adorned by Cosimo Fanzago a few years earlier, around 1654 (fig. 11.61). While The Cross on Fanzago's *paliotto* seems

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miraculously to blossom from book-matching, it is actually conjured from a jigsaw of more than a hundred Alabaster shards.\textsuperscript{174} One friar acutely noted that “it exhibits a contest between Natural Art and Artful Nature.”\textsuperscript{175} But Bernini did not decide to tease the image from the stone organically, as Fanzago had done, and instead insisted on the paragone. He self-consciously framed the paliotto, – an extraordinarily rare motif – and revived opus sectile to reinforce the classical analogy with painting, for the portraits of the deceased De Silva which originally filled those side frames may even have been painted.\textsuperscript{176} Yet it would be a mistake to see the conceit of the paliotto as some ludic aside, because Bernini presents these De Sylvas with an image of salvation that is as crystalline as that they will themselves see at the end of time. The complexity of means was, for once, spelt out in the prolix inscriptions detailing the concetto, including Bernini’s signature, and drawing attention to his “ingenium.”\textsuperscript{177}

\textsuperscript{174} The cross formed by book-matching is rare in Baroque art. The only other Roman example known to me is the paliotto in the Cappella Farsetti, S. Maria Maddalena. The entire altar was transferred to this chapel from the chancel in 1694.


\textsuperscript{176} The present carved reliefs were added about 1700. The inscription is unclear on this point: QVOS . HIC . VIDES . PICTVRA . EXPRESSOS . II . SVNT / FRANCISC . NICOL . A . SYLVA . ET . D . IOANNA . A . SYLVA (“those whom you see portrayed in painting are Francesco Nicola De Silva and Giovanna De Silva”). By rights the Latin “pictura” should signify \textit{painting} (not \textit{picture}), but Junius’ \textit{De Pictura Veterum}, for example, uses the word in the sense of “an art of representing nature visually, whatever the medium.” Keith Aldrich, Philipp Fehl, and Raina Fehl, eds., \textit{Franciscus Junius. The Painting of the Ancients. De Pictura Veterum according to the English translation} (1638), 2 vols. (Berkeley/Los Angeles/Oxford: University of California Press, 1991), xiv. Also “exprimere” may be used because summons up the idea of modelling.

Conclusion

In this work – but, more than any other, S. Andrea al Quirinale – Bernini substituted that scintillating, gemological and talismanic reflection of heaven of previous epochs with one that brought sky to earth in the supremely ambiguous form of “cloud-architecture.” Besides religious painting, a major impetus must have been supplied by the structures built for the ephemeral Quarant’ore, in which thousands of hidden lamps were hidden behind massive painted clouds to present the Eucharist, and stage intrusion of the Real Presence into the church.178

At S. Andrea Bernini abandoned the elaborate artistry of intarsiated clouds that Spada, and initially he himself, had pioneered and which must have begun to smell too much of the artist’s studio and the sumptuary art market. These means of illusion were now too artful to sustain a compelling religious environment, and one is reminded of Galileo’s earlier dismissal of Tasso’s invention as conceptual poverty like “intarsiated painting” compared with the painted, sfumato, in oils of Ariosto. Ariosto’s poetry flowed, but in Tasso’s you could really see the joins.179 Like sfumato, cloudy marble resolved the paradox.


179 Galileo criticises Tasso’s “povertà di concetti” which means the poet “è costretto andar rappazendo insieme concetti spezati e senza dependenza e connessione tra loro, onde la sua narrazione ne riesce più presto una pittura intarsiata, che colorita a olio: perchè essendo le tarsie un accozamento di legnetti di diversi colori, con i quali non possono già mai accoppiarsi e unirsi dolcemente che non restino i lor confini taglienti e dalla diversità de’ colori crudamente distinti, rendono per necessità le lor figure secche, crude, senza tondezza e rilievo; dove che nel colorito a olio, sfumandosi dolcemente i confini, si passa senza crudezza dall’una all’altra tinta, onde la pittura riesce morbida, tonda, con forza e rilievo. Sfuma e tondeggia l’Ariosto...”: Considerazioni al Tasso, Canto I, 1; Eugenio Alberi, Celestino Bianchi, and Vincenzio Viviani, eds., *Le opere di Galileo Galilei*, 15 vols. (Florence: Società Editrice Fiorentina, 1842), 9: 68. Note that the theorist Junius also applied the concept of *ex uno lapide* to painting, praising the “commissures and transitions of colours, they were known by the name of Harmoge... [which signifies] an
of presenting an insubstantial heaven through the material world, because stony cloud both grounded and elevated the viewer at the same time.

The fantastic grain and rich color of marble, a material whose hardness asserts surface but whose high polish, veining and luminescence dissolves material, had always allowed the liturgical drama to locally push beyond tangible boundaries. But, when its innate image was the utterly liminal cloud, the senses could participate in a material whose identity was ultimately as elusive as the essence it sought to impersonate. Yet the theological intellect knew that divinity was not too far away and the beholder occupying the centre of such a permeable perimeter, traversed by quadrophonic, celestial music from four choirs arranged in the figure of St. Andrew’s cross, could assure himself that he really nestled in a spiritual embrace. The materials, and only real figurative protagonists, vertically negotiated transactions by the mixing of their substance.

Looking into a tribune somewhere between a temple and a loggia (fig. 11.53), we apprehend the marble-framed altarpiece of St. Andrew’s martyrdom born by angels and “floating” in front of a blue mosaic field imperceptibly toned with its deepest hue forming a horizon at the bottom edge, an edge which also marks the final bleeding away of the divine light that spotlights him. Bernini’s example was once again the Cappella Paolina. If the apse with its divine spotlight and angelic paraphernalia signifies a rupturing of time, it lies visibly beyond our orbit. Bearing in mind that this is the church of a novitiate dedicated to producing missionaries, what we witness handed down to us in the apse is a

unperceivable way of art, by which an artificer stealingly passeth over from one colour into another, with an insensible distinction”: Aldrich, Fehl, and Fehl, eds., Franciscus Junius, 247-49.

180 In S. Andrea, the choral coretti (or cantorie) are open balconies that hollow out the piers flanking the apse and the entrance bay, diametrically facing each other on an X-axis.
paradigmatic documentation of St. Andrew’s martyrdom, a habitual penalty of missionary work and, in a final sense, the truest testament of faith in the Lord. In the tympanum, however, we see rising his (and the Jesuit’s) spiritual reward, apotheosis and union with the Godhead. The two representations are apparently counterweighted but a similar exchange now also occurred within the materials.

In conclusion, it must be added that the kaleidoscopic cloud-architecture of S. Andrea is the governing metaphor, at a generation’s remove, behind much of the Stuckmarmor cladding of Bavarian churches, and others that occupy a swathe of Europe from Einsiedeln to Prague.\textsuperscript{181} Now the columns are clad with materials that imitate no recognisable marble but seamlessly dilate the pastel clouds and ever more Tiepolesque palettes of the altarpieces beyond their frames to fill the interior and lick its walls (fig. 11.62). That the painter-architects and stuccatori, many of whom were Italian emigrées, were aware of the origins becomes absolutely lucid in the oval vestibule ceiling of the Asamkirche in Munich where an embossed and gilded sun sprinkles its rays over a cloudy backdrop (fig. 11.63). In his mind’s eye, Asam still looked back to Bernini’s earliest experiments in colored cladding, the reliquary balconies of St. Peter’s (fig. 11.41). But since Asam’s ceiling is fashioned from stucco lustro, a paste of powdered marble and stone chips smeared on with a spatula, it may be said with complete justification that these clouds were truly painted in stone.\textsuperscript{182}

\textsuperscript{181} The only real study of the phenomenon is Ulrich Schiessl, \textit{Rokokofassung und Materialillusion: Untersuchungen zur Polychromie sakraler Bildwerke im suddeutschen Rokoko} (Mittenwald: Maander Kunstverlag, 1979).

\textsuperscript{182} The Asam brothers had trained in Rome, and the obvious models for the illusion in the Munich stuccoes were the intarsie of Bernini’s reliquary balconies at St. Peter’s.
Appendix: building history of the De Sylva Chapel in S. Isidoro

The chapel was already thirty years old when Bernini set to work on it. It had originally been conceded to Monsignore Alfonso Manzanedo de Quinones (c. 1556-1627), who is buried in the chapel vault. The monsignore’s bequest provided for the decorations but his heirs proved so remiss in executing his wishes that they were threatened with the loss of their privileges. Even so, they did not put works into effect until 1632-4, when the architect Orazio Torriani carried out the chapel during a broader campaign within the church and convent. The decorative stuccowork of the dome (except for the bronze coloured panels of ludic putti), which is very anachronistic for the 1660s, was carried out by the *stuccatori* Alessandro Mantovese and Giovanni Maria Fontana in the 1630s.

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183 ASV, Visite Apostoliche (1640-1670), ff. 93r-94r (*Visita Apostolica* of 25th August 1628). Daly erroneously interprets the phrase pertaining to the altar on which the painting of Saints Peter of Alcantara and Paschal of Baylon are represented as being a second altar in the same chapel dedicated to the Virgin.

184 Franciscan Library, Killiney, Republic of Ireland (hereafter FLK), Ms. C58, p.168r/v contains payments beginning in April 1632 (to Francesco Ildoni and Giovanni Broggi for “la fabbrica cominciata dal med.”* Collegio*: “a di 24 de Luglio 1632 al sodetto M.° Giovan Broggi muratore altri scudi venti a Conto della fabbrica della fabbrica [sic] della Cappella de Mons. Mansanedo come apparisce nelle sodette paretize de fabbrica… Δ20,” “a 5 di Aug. 1632 al M.° Alessandro Montonese scarpellino scudi cinque m.° a conto di detta Capella… Δ15,” “A 20 detto al sodetto M.° Alessandro Montonese scudi cinque m.° a detto conto… Δ5,” “a di 24 di Ag.° 1632 al sodetto M.° Alessandro scudi trenta di m.° al detto conto… Δ30,” “a di 7 di Novembre 1632 al M.° Giovan Bapt.° Negrino stannare scudi seidici d m.° per la cup.° di piombo sopra la s.° Cap.°… Δ16; “a di 9 di Novembre 1632 al M.° Franc.° Ildoni scudi cinqu.° a conto di Calze per la fabbrica sedetta… Δ50,” “a di 1.° di Gianaro, 1633 al M.° Alessandro Montonese Scarpellino scudi venti di m.° a Conto de Lavori per li sodetta Capella di Mon. Mansanedo… Δ20,” “a di 2 di Aprile 1633 a Giovan Maria Fontana stuccatore scudi trenta di m.° a Conto de Lavori fatto nella sodette Capella… Δ30,” “a di 29 Aprile 1633 al M.o Alessandro Montonese scudi dieci a Conto de Lavora di sodetta Capella… Δ10.” A much more complete list of payments (in Spanish) is given on fols. 73r-74v (“Conto delli spesi fatto nella fabbrica chi si comenci n’il Convento di S Isidoro di Roma a di 22 di aprile de 1632”): “Mas por ordine diretta al Sr Synd.° de 5 de Agosto le pagaron al Sr Alessandro Montonese a buon conto del lanternin de la cappella de Mons Mansanedo… Δ15,” [74r] “Mas a Cuenta di le misma fabbrica de la d.° Capella le pagararon a Joan Broggi murador con polisa de los 24 Julio del 1632 scudos… Δ20,” “Mas por […] el lantermino le pagaron al sobred.”*; “Alessandro Montonese con poliza di los 20 di Augusto dirigido al n.° Synd.”*; “Mas por polisa de quince scudos dirigido al sobredetto Synd.”* le pagaron al sobred.°*; “Alessandro Montonese a buena cuenta di […] por el altar […] ballastre de la sobred.”*; “Mas por polisa del primer de Hener le paga al sobred.”*; “M.° Alessandro a buena cuenta de la obra sobred.”*; “A los 29 di Junio de dio polisa de escudos doce […] dirigida al Sr Luis Gomez paraq. pagane los a Sebastian aldghrer vid caro a buena cuenta de los se le dene por los udeseras de la capella del Sig.”* Mons Patriarca Mansanedo… Δ12,” “A los 7 de di polisa de quince escudos dirigida al mesmo L Gomez [f. 75r] para pagare los a buena cuenta de los le deve al M Joan Baptista Negrini […] por el plomo […] la capilla del III.”* Mons Mans… Δ15,” “A los 4 de Julii se dir polisa de veghti escudos de m.da al M Joan Maria Stuccatore a buena cuenta de […] se le deve por el lavor di stucco di sua en la cap.la de Mons Mansanedo… Δ20,” “A los 5. se had polisa de escudos diez al Mo Alessandro Montonese scarpellino Romano a buena cuenta de los deve aver por el altar de pofido y
Nonetheless, Manzano de Quiñones’ heirs did not equip the chapel for mass nor provide it with an altarpiece and when the time was ripe, in February 1661, Rodrigo Lopez de Sylva assumed its patronage. Lavin hypothesised that Rodrigo patronised the chapel, supported the dedication to the Immacolata, and gained Bernini’s service because he was the brother of the notary who published Manzanedo’s compendio in 1647. The truth is far more direct. The De Sylvas had been associated with the church during the transition from Spanish to Irish congregation, in 1626, for an inscription records a benefaction by Ruiz Gomez de Silva. The association continued, or was

ballastras de ca detta capilla de Mons Mansaned… \( \Delta 10 \), “A los di Aug. se ha dad poliza de escudos diez a sobredet. Mr Alessandro a buena cuenta po la misma capilla… D10,” “A los 19 de l misma mes se ha da poliza al Mr Erveyan Rannaro de diez escudos a buena cuenta de los se deve por el plomo de la capilla… \( \Delta 10 \), “A los 12 di 7bre se dev poliza al Mo Alessandro ad uno conto della capilla di rigido al S Gomez… \( \Delta 20 \), “A los 27 se dev al mismo del poliza de diez escudos dirigido al Luis a cuenta de la capilla… \( \Delta 10 \), “al vidzar [?] de la misma mà.” “\( \Delta 12 \), “al stanaro tambien… \( \Delta 10 \), “a los di de Febr. del 1634 se div al freraro a buena cuenta di dirig. de al mism… \( \Delta 6 \), “al stuccatore tambien… \( \Delta 20 \)."

FLK, Ms. C58 (at fols. 1 ff.) also lists a series of donations to St. Isidoro by Mançandeo, beginning in October 1626: 5th October (A37); 5th December (A10); 4th January 1627 (A20); 3rd February (A20); 7th March (A20); 4th April (A20); 8th May (A25); 4th June (A2).

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186 Lavin, Bernini: I, 80-81: Manzano de Quiñones was Postulator of the Cause for the Canonisation of S. Teresa of Avila, and opted to be buried in S. Isidoro probably because it was dedicated to the saint from Madrid who was canonised at the same time. He died November 13 1627 (not 1628) willing that he was to be buried in the church but leaving the details to his executors. One of these was Filippo Lopez, to whom he left his collection of legal papers (will - Auditor Camere, Sez. I, Not. Jacobus Morer, busta 517, November 8, 1627; Lavin, Bernini: 81, note 16); Lopez published Manzano de Quiñones’ compendio in 1647 (Lavin, Bernini: 80). Lavin speculates that this Filippo Lopez was the Rodrigo’s brother, since at his death on July 18 1648, he is called “Odoardo Lopez Rom. o discendente di natione portoghese” (ASVR, S. Andrea delle Fratte, III, 1647-85, fol. 7; Lavin, Bernini: 81, note 19).

187 RIVIZIO GOMEZ DE SILVA PRINCIPI MELLITI / DVICI PASTRANÆ REGI CATHOL. : A CONSIL . STATVS / VÆNATIONIS PRÆEFCTO ORATORI ROMANO / OPTIMO BENEFACT.
resumed, for the *concessio* records that Rodrigo’s children, Odoardo and Maria, were already buried in the church (though not the chapel) by 1661. Bernini, for his part, agreed to undertake this comparatively humble commission because he was contemporaneously executing the Fonseca Chapel and De Sylva and Fonseca, both Portugese, were so well acquainted that they even lent each other money. Finally, Bernini was also De Sylva’s next-door-neighbour and his landlord as Rodrigo had rented the adjoining palace from Bernini since 1659. 188

Rodrigo Lopez de Sylva had the chapel at S. Isidoro redecorated two years after assuming its patronage (1663). 189 Bernini’s alterations swept Manzanedo de Quiñones’ tomb – with a portrait bust attributed (equally unconvincingly) to both Bernini’s erstwhile collaborator Giuliano Finelli and to Alessandro Algardi 190 – out into the transept just in front of the chapel’s opening.

The team of artists who carried out the decorations in the De Sylva Chapel may be inferred partly from the paltry payments from Rodrigo’s bank accounts and partly by deduction. We can be sure that the same workmen executed the parts in the De Sylva chapel as the Fonseca, incidently the equipe that we find simultaneously at S. Andrea al

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188 ASVR, *Stati d’anime*, S. Andrea delle Fratte, vol. 51 (1659), fol. 46v; vol. 52 (1660), fol. 35v; vol. 53 (1661), fol. 35v; vol. 54 (1662), fol. 44v; vol. 55 (1663), fol. 47; vol. 56 (1664), fol. 42v (now Francesco Nicola’s daughter “Beatrice, anni 2”); the De Sylvas are always listed immediately after the Berninis but there is no mention of them in 1658 (vol. 50, fol. 40v). The standard entry records “Isola del Sig. Cavlier Bernino, Ill. mo D Lopes de Silva Cavalier di S Giacomo, D. Beatrice moglie Portoghesi, D. Fran. Nicola de Silva figlio D. Giovanna moglie, D. Serafina sorella zitella...[and ten servants].” For the years 1660 to 1662 “D. Fran. de Silva Cavalier di xpo Commendatore” is also registered in the household. Rodrigo’s son, Francesco Nicolo, continued to live there until 1686: C. Acidini Luchinat, F. Borsi, F. Quinterio, Gian Lorenzo Bernini. Il testamento. La casa. La raccolta dei beni, Florence 1981, pp. 33-34: at Bernini’s death (1680), the adjoining palace was rented to Monsignor Niccolò Da Silva [sic], in 1686 Bernini’s heirs bought a small house opposite the Propaganda Fide to accommodate his growing needs as he threatened to leave the property. By 1708 the property was in the hands of a Monsignor Ansaldi.


Quirinale. Thus, the putti supporting Maratta’s painting have been attributed on stylistic grounds to Antonio Raggi,¹⁹¹ and the frescoed panels of the chapel mouth and the lunette of music-making angels to Ludovico Gimignani.¹⁹²

Rodrigo Lopez De Sylva died in 1671¹⁹³ and was interred in the chapel. His son, Francesco Nicolo, died in 1699 and was not, preferring either SS. Trinità dei Missionari or the Gesù.¹⁹⁴ The inscriptions were presumably carved after Rodrigo’s death and before Francesco Nicolo’s, i.e. between 1671 and 1699 – at least that on the right. The explicit mention of “Bernini’s ingegno” suggests that the artist was himself deceased by the time the inscriptions were carved, and therefore almost certainly the relics too, and we may perhaps narrow down their dating to somewhere between 1680 and 1699.

¹⁹¹ U. Donati, Artisti ticinesi a Roma, Bellinzona 1942, 442.

¹⁹² Pace, Gimignani, cat. 81, a, b, c.

¹⁹³ ASVR, S. Andea delle Fratte, Liber mortuorum, III (1647-85), fol. 192v: “Anno Dni 1671, Die 17 Januarij Illmus Dmnus Rodericus de Sylva Olyssiponensis in Lusitanis...anno septuagesimo secundo aetatis suae.” Rodrigo’s joint will with his wife was drawn up on 27th March 1670 and opened ten days after Rodrigo’s death, on 27th January 1671: Archivio Capitolino, Sez. XII, vol. 38, Giovanni Maria Antonetti (with a codicil on 14th January 1671); the will described them as “Ruis Lopez de Silva... figlio di Odoardo de Silva e di Maria Gomez già defunti e Beatrice de Silveira figlia di Fran.” de Silveira e D.” Sebastiana de Paz, ancora già defunti marito e moglie leg.mi che sono nati nella Città di Lisbona et habitanti in questo di Roma a S. Andrea delle Fratte…”. The De Syllvas left money for a conspicuous number of masses, a chapellainship at S. Isidoro, as well as the usual sundry bequests to other churches and confraternities. 2000 scudi were left to “nra nipote Beatrice Maria Agata de Silva” as a dowry (for a husband or a convent) and two other “nipoti,” Rodrigo and Bianca, as well as Rodrigo’s brother Manuel Diaz de Silva are named. Most of the other beneficiaries were evidently Portuguese, among them the Marchese Francesco Nuñez Sanchez and Baldassar Gomez Homen, with many bequests to relatives in Lisbon, as well as a nephew of Rodrigo’s “che sta nell’India” (presumably Goa). The will also instituted a fidecommissio, including lands in Spain, various unspecified houses in Rome, a vineyard outside the Porta Pia, and sums deposited in the Venetian Zecca. The executor was their son Francesco Nico, also the universal heir.

¹⁹⁴ Francesco Nicolo De Sylva’s will was drafted on 10th November 1699, he died four days later and his will was opened on the 24th: ASR, 30 Notai Capitolini, ufficio 1, Franesclus Floridus, Testamenti, vol. 850, fols. 29r-32v, 36r-37v. This document names his main heirs as his sons Odoardo, Pietro Paolo and Giovanni Battista de Silva although 1000 scudi are left to his daughters Bianca and Cristina as a dowry (30v). The will was opened at the “Palatium solitae habitatiovis d. D. Eq. Fran. Nicolai de Silva prout hic Romae ut dicitur in Piazza Capranica” (fol. 29r) and orders that his “cadavere sia sepolto nella sepoltura de RP. della missione nella loro casa di M. Citorio, dove si seppelliscono li PP. di d. Cong. con l’abito de frelli laici di essa” or otherwise “nella Chiesa de PP. Giesuiti al Giesù con esser vestito con l’abito de Laici di d.” religione...” (ff. 30r-30v).
In questo luogo è collocato il sepolcro Pontifizio, da terra sino alla sommità del volto tutto incrostato di marmi eccellenti, e pellegrini, che il Papa suddetto si fé lavorare vivendo, ove ordinò poi (sebbene non si eseguisse la sua pia intenzione) venisse depositato dopo morte il suo Corpo, come si ricava dall’Epitaffio da lui stesso composto, e fattavi inprimer sopra a lettere in bronzo dorato. Nella parte anteriore stà incastrata una marmorea lapide di finezza maggiore (che si crede di paragone) e cotanto lucida, che a guisa di terzo specchio ogni cosa riflette… Sopra questa superficie è collocato l’avvolto del Deposito col suo coperchio elegantemente lavorato, appo del quale stà di terso specchio ogni cosa riflette… Sopra questa incastrata una marmorea lapide di finezza maggiore eseguisse la sua pia intenzione) venisse depositato marmi eccellenti, e pellegrini, che il Papa suddetto si fé terra sino alla sommità del volto tutto incrostato di marmi eccellenti, e pellegrini, che il Papa suddetto si fé terra sino alla sommità del volto tutto incrostato di marmi eccellenti, e pellegrini, che il Papa suddetto si fé.

In this place is set the Pontifical tomb, completely encrusted from ground to summit in excellent and foreign marbles, which the aforementioned Pope had made while he lived, and where he wished (although his intention was never honored) for his body to be laid after death, as one can read on the epitaph that he himself composed and had placed above in bronze lettering. In the background is set a marble slab (said to be paragone) of great fineness and so polished that like a clear mirror it reflects everything… Above this surface is placed the avello of the tomb with its elegantly worked lid, above which kneels the statue of Pius V in pontifical garb. His head is shining white marble, and so well formed that even the veins appear; and also the shirt, part of the arms and the hands, which he has closed [in prayer] are formed in the same way; all the rest [of his body] is covered with a cape in veined and reddish marble, and arranged with such mastery that it would be the envy of any excellent painting. A little more forward is the Kingdom of the World in the same material, with the cross and three crowns in gold. In this guise he appears praying before a majestic image also of shining alabaster, in which is wondrously carved the Resurrection of Christ, which image is ornamented by a double order of very fine columns. This order continues in the flanking relassi, and between the columns rise two great statues also in alabaster, of feminine figures that represent Faith and Charity. In the pediment is formed a niche, where with singular skill has been placed the statue of St. Michael the Arcanget, who with a lance in hand strikes down the Serpent, which is below his feet, and still seems to falling through the air, so è discorso per ogni intorno.

2) Antonio Bosio, on the new confessio at S. Cecilia in Trastevere (1600)

Ciborium antiquum Altaris maioris ex marmore diversis Sanctorum figuris…contraxerat perpoliri, & in pristinum candorem restituì, fulgentique pluribus locis auro illuminati curavit […] Exinde vero spatium illud ab Ara maior ad circuitum absydis, quod antiquitus Presbyterium vocabatur clausit, remotis anterioribus circa Aram gradibus, quibus eo prius ex navi mediana patebat ascensus, muroque inibi ad planitiem

The ancient ciborium of the High Altar [is made] from marble with various figures of saints…and [Cardinal Sfondrati] had it polished all over, and restored to its original splendour, and he saw that it was gilded with brilliant gold in several places […]. Then he closed off that space between the High Altar and the circuit of the apse, which was anciently called the ‘Presbytery’. [He did this] by removing the steps in front and around the altar

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pavimenti superioris exaequato: cuius muri faciem peregrinorum lapidum ex variis coloribus in diversas formas sectorum artificiosa, & nitida coagmentatione vestivit. Ad maiorem autem operis ornatum terna utraque ex Arae parte in eiusdem muri medio signa inservit ex aere inaurata, a dextera quidem B. Caeciliae, Sanctorumque Valerianii, & Tiburtii; a leva Sanctorum Urbani, & Lucii Pontificum, Maximique Martyris. Supra murum quam late ad Aram pertinet, & a lateribus ordinem utrinoque statuit colomellarum, quas vulgo balustros appellant, quae cum sculpturae artificio, tum maculosi fulgore lapidis spectabiles desuper candidi marmoris peristylio continentur [...] Murum enim Arae directe subiacet…in Augustum Tabernaculi speciem conformavit, multisque circum ornamentos pulcherrimis insignivit. Et in eius muri medio loculus in longitudine excavatus ad cubantis corporis mensuram, qui totus undique nigro lapide circumvestitur. Intra hoc loculum statua B. Caeciliae Virginis ex Paro marmore candidissimo collocata visitur […] Reliqua denique exterior facies huius Tabernaculi tota selectorum lapidum discolori incrustatione magis, magisque explendescit, in quibus plaerique qualitate, & pretio proxiime ad gemmas accedunt, ut onychinus, & qui vulgo lapis lazuli dicitur caerulei coloris, quorum non exigua inibi segmenta mireris. […] Intra hoc septum quae inclusa est areola strata est tota operi vermiculaturo ex alabastro, aliisque perlucidis, pretiosisque lapidibus multiplicitum colorum, qui ita apte conferti, coagmentatique sunt, ut elegantissimae picturae speciem aemulati videantur.

[...] Huius quoque mediae navis spatium remotis veterum ambonum, seu pulpitorum e marmore impedimentis, cum nulli iam usui sint, in ampliorem speciem dilatavit, ita ut sub uno aspectu ingredientibus nova omnia ad aram maiorem, et circa sacrum tumulum ornamenta compareant. [...] Columnas item lapides, quibus naves inter se dirimuntur, quod vetustate corrosae ac labractae essent, ad viridicati marmoris similiudinem colorari ac depingi curavit; basibus atque capitulis novis e tiburtino marmore adiectis. (by which the route up there was evident from the nave), and making the wall level with the height of the upper pavement: he clad the façade of this wall in an artful and radiant assembly of exotic stones of various colours cut into diverse shapes. For the still greater ornament of this work, to either side of the altar, in the middle third of the same wall, he set up images of gilded bronze: on the right, in fact, of the Blessed Cecilia and saints Valerius and Tiburtius; on the left of the Saints and Popes Urban and Lucius, and Maximus the Martyr. Above the wall, which leads broadly to the altar, and on both sides, he set an order of admirable columnettes (commonly called balusters) of shining marble that, by both the artifice of sculpture and the brilliance of the mottled stone, enclose the area above with a peristyle […] . Indeed, he fashioned the wall directly below the altar… in the august form of a Tabernacle, and decked it all around with the most beautiful ornaments. And a loculus was excavated in the middle of this wall, to the dimensions of the reclining body, which is completely clad with black stone all over. Within this loculus appears placed the statue of the Blessed Virgin Cecilia [made] from the most pure Parian marble […] . Finally, the rest of the external face of this Tabernacle brightly shimmers more and more by the varicoloured incrustation of its choice stones, most of which in their quality and value come near to gems, like Onyx, and (what is commonly called) Lapis Lazuli of a cerulean colour, at the size of which slabs there you will marvel. […] Within this enclosure, that is enclosed is a golden covering made completely from wavy alabaster, and other transparent and precious stones of many colours, which are so closely united, that they seem rival a sort of most elegant painting.

[...] Having also removed the obstacles of the old marble ambones (or pulpits), since they are now useless, he amplified the space of this nave into a grander form, such that all the new ornaments at the high altar, and around the holy tomb, were perfectly evident to those entering at one glance. [...] Likewise he had the stone columns, which divide up the nave from the aisles, because they were eaten away and corroded by age, coloured and painted to resemble green marble; new bases and capitals of travertine were added.
3) Giulio Mancini on mosaic and intarsia, 1617/21

Seguita hor l’altra spezie di pitture, quando che, oltre la quantità, figura et ombra, si va ancora aggiungendo et esprimendo il colore con la lontananza, vicinanza e profondità del colorito più o meno acceso, secondo che si ricerca per immitazione et espressione del vero e naturale, per esser più o meno vicino, più o meno illuminato. Et perché questo colore può essere espresso et immittito da diverse materie che con il color loro vadin imitando et esprimendo i colori che noi desideriamo, di qui avviene che tante sorte di pitture saranno a colore, quante saranno le materie colorite che noi adoperiamo per simili immitatione.

Perché o saranno pietre, smalti, legni e gioie e queste o ridotte in pezze piccoli che post’a canto l’un l’altro, facendo unione, immittino et esprimino il colore che noi dessideriamo – e da questo modo ne nasce quella spezie di colorito che noi diciamo mosaico – o con pezzetti maggiori pur coloriti, posti a canto l’un l’altro, connesse, si son pietre, per via di calce et incrostatura, come si vedono alcuni musaichi et in particolar in S. Andrea Cacobarbara appresso S. Antonio, dove son pitture di commettiture di pietre assai grande, che con l’incrustatura di calce stanno insieme senza perni stellati, com’han fatto alla cuppola di S. Pietro che, vista da lontano, fa l’effetto che si desidera. E questo tal modo di pittura si dice tarsia, delle quale ne vediam bellissime in Bologna nel choro di S. Domenico, e ne è qui in Roma alcune in mano d’huomini particolari, e di pietre nel pavimento del Domo di Siena che immita il chiaro oscuro, et ultimamente da Paol Veronesi di panni di diversi colori come si vede in quelli dell’illustissimo Borghese. Alla quale si reduce quel nobilissimo modo

dove con ammirati si vede in Fiorenza in Gallaria dove, con varietà di gioie come lapislazzuli, crugnole, agate et altre che nell’istesso pezzo habin varietà di colori nella cosa espressa et immitata che si desidera. Come, per esempio, se con queste pietre si volesse dipingere un fiore che nelle sue frondi havesse varietà di colore, et per il lume e per la varietà istessa e per la lontananza et vicinanza delle parti si riporterebbe una tal pietra che havesse in se queste varietà, come ancor se si volesse esprimere una veste che per piegature et altro havesse questa varietà di color corrispondente.

Questa tarsia è nobilissima non men per il valor della materia che per l’artificio dell’artefice e scherzo di natura in simil varietà. Ma questa tarsia, se non è aiutata dalla natura con la varietà di color in un medesimo pezzo, se l’artefice non è diligente in

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commetterle che non sian viste e godute da lontano, non dà gusto, anzi disgusto, come fu quella di Clemente VIII che, essendo stato ritratto con questa sorte di tarsia di pietra e vedutosi d’approso, disse non esser così brutto, non se li assomigliare, né la volse accettare, ancorchè fosse molto bella e molto artificiosa. may not be seen and enjoyed from a distance, will not be pleasing, and in fact displeasing, like the painting of Clemente VIII who, having been portrayed with this sort of stone intarsia and seen himself up-close, said that he was not so ugly, and is it did not resemble him, he did not want to accept it, even if it was very beautiful and very artful.¹⁹⁸

4) Virgilio Spada’s concept for the family chapel, S. Andrea della Valle, 1631

a) on altars, tombs and their material decorum ¹⁹⁹

[f. 21r] Gl’altari nelle chiese come dice il Baronio nell’anno 275 n.° 2 non sono altri che sepolcro de martiri e però non si può erigere altare che non vi si pongh reliquie de santi martiri nella pietra sacrata, i quali essendo gloriosi meritano anche sepolcro glorioso conforme che fù detto di Christo et erit sepulcrum eius gloriosum. Anticam.¹⁹ i christiani non ardivino sepele alce ne le chiese ma solo nei cemeterij […] a poco a poco si è introdoto di sepele chi sia si nelle capelle et in qualsiasi parte dela chiesa, essendo però in una capella l’altare ch’è sepolcro de martiri et il deposito di altri particulari persone pare che convenghi che l’altare e lo ornato dell’altare come di sepolcro glorioso sii vago bello e conseg.²⁰ possi essere adorno d’ogni sorte di pietre di varij colori, ma i sepolcri che fossero in d.² capella come di persone particolari pare che propriamente non debbano essere se non funebri e lugubri che però non se li possa adattare pietra più proportionata che la negra, ho però fatto nel disegno dela capella i doi lati di essa di pietre di paragone nere terminate di giallo, lasciando la facciata dell’altare adornata come si ritrova vaga e riccamente [fol. 21v] e tanto più mi son sodisfatto dell’ornato nero quanto che disegnando porre alcune historiette di bassi relievi di bianco di quali spiccerà magg.²¹ con l’ornato nero che con qualsiasi altro marmo di colore oltre che dovendo tutto le cose che si fanno haver qualche singularità per contradistinguere dell’altre e per invitare la gente a vederlo non hò saputo ritrovare altra singularità che si possi fare senza di gran lungo la spesa prescritta dal S. Paolo che questa, perche la singularità ne la pretiosita de marmi e di grand.²² gusto la singularità di pitture non è cosa perpetua oltre che ve ne sono dell’altre fatte da singolari pittori, la varietà de marmi e scompartimenti and I was all the more satisfied with this black ornament when designing I could place some small bas-relief scenes in white [stone] that will stand out more with the black ornament than with any other coloured marble other than the necessity that everything done have some particularity to differentiate it from the others and to entice people to look at it; I have not found any other singularity that can be made without greatly exceeding the sum of money specified by Signor Paolo that this, because neither the particularity nor the preciousness of the marbles and the greatest taste the singularity of the paintings it is not a perpetual thing beyond that there are some others made by extraordinary painters, the variety of the marbles and the beautiful pannelling and it is a


vaghi e cosa molto solita e però si puo meglioare, ma q.\textsuperscript{30} sarà singolare in vedere capella così grande quali tutta d’una pietra che non è così in uso e cioè la pietra di paragone quale è molto stimata, e vale assai, e nella capella del S. Duca a fiorenza v’è buona quantità, il vedere ancho quei 3 soli colori giallo nero e bianco, è oggetto che sotto a creder mio sarà curioso di vedersi, quei bassi rilievi non è usata se non alla capella di P.P. Sisto e Paolo V e poche altre e la spesa eccedera forse di poco il prescritto del S. Paolo facendovi venire con vantaggio la pietra di paragone di Fiandra e sara cosa masiccia e che havra del perpetuo.

b) on the chapel side walls\textsuperscript{200}

Un personaggio desidera fare una cappella in Roma in Sant’Andrea della Valle, i lati della quale si havranno ad ornare con incrostature di marmi, pitture, bassirilievi, o cose simili, e perché vorrebbe uscire dall’ordin.\textsuperscript{30}, v'à pensando che il comesso de i marmi formi una prospettiva, con speranza di poter con varietà de colori de’ marmi rappresentare il soggetto poco meno che con i colori de pittori, per il che si farà necessario formare un pensiero di prospettiva vago, e facile più che si può, dove non entrino figure di uomini, animali, arbori, e simil cose irregolari, ma di pilastrate, soffiti, teatri, et simili cose con pensiero di far dipingere in tela il soggetto, che più gradirà, acciò il scultore sopra quello dividi e comessi le pietre, si per la grandezza, come per i colori di esse, e perché si ha concetto che il Dentone sia uomo di buon gusto in simili pensieri di prospettiva, si havrebbe caro che mettesse in carta tre o quattro pensieri che possino servire a d.\textsuperscript{36} effetto per farli poi trasportare in grande, et in pittura, quando il d.\textsuperscript{37} Sig.\textsuperscript{38} si sarà sodisfatto. Si avverte però che i lati dove vanno d.\textsuperscript{39} prospettive sono doi, essendo la facciata dell’altare più [or già] ornata, in questi due lati sono una porta in mezzo, che passano da una cappella all’altra, il rimanente è piano, e libero, e a alto ciasch’uno di essi dal pianterreno alla cornice 39 palmi conforme la misura in piedi di questa [f. 73v] e larga 25; vi andranno doi depositi per lato, cioè uno per parte delle d.\textsuperscript{36} porticelle, o uno solo per lato sopra le porte. Si considera che sarà più facile il rappresentare pilastri che colonne tonde, per la difficoltà di ritrovar ne marmi l’ombre delle colonne tonde. Sarebbe bene, che

A personage desires to make a chapel in Rome, in Sant’Andrea della Valle, the side-walls of which must be adorned with marble incrustations, painting, bas-reliefs, or similar, and because he would like to do something out of the ordinary, he is considering the idea that the marble composition should form a perspectival view, with the hope that the variety of colours of the marbles could represent the subject no less than the colours of painters, for which reason it is necessary to conceive a beautiful design for a perspective, as easy [to make] as possible, which does not include figures of men, animals, trees, and irregular things of the sort, but with pilasters, ceilings, theatres and similar things, with the intention of having the subject that proves most pleasing painted on a canvas, so that the sculptor divides and joins the stones on top of it, both with a view to their size and colours, and because it is believed that “Il Dentone” is a man of good taste in similar designs for perspective, it would be much desired that he put three or four ideas down on paper, which could serve to this effect, so that they can then be blown up in scale, and into a painting, when the aforementioned Lord is satisfied with the choice. It should be noted, however, that there are two side walls on which these perspectives should go, since the altar wall is already ornamented, and that there is a portal in the middle of these two walls (allowing passage from one chapel to another), and that the remainder [of the wall] is flat, and free, and each of these walls is 39 palmi high, from floor to cornice and 25 wide; two tombs should go on the side walls, that is one on each side of the aforementioned portals, or only one on each side above the portals. It is thought that it will be easier to represent pilasters than round columns, due to the difficulty of finding the shadows of round columns in marbles. It would be good if

\textsuperscript{200} Letter draught of Virgilio Spada, undated but c.1631, ASR, Fondo Spada Veralli, tom. 490, f. 73r/v. Partially cited in Lionello Neppi and Giovanni Spadolini, Palazzo Spada (Rome: Editalia, 1975): 125-26 (note 19) and Heimburger-Ravalli, Architettura: 80 (note 16). It seems highly likely that this is the draught of a letter to be sent to the painter, and perhaps by a third party since the letter demonstrates that Spada wishes to remain anonymous for the time being.
alludessero le prospettive a qualche cosa, et è da sapere che la cappella sarà, o della madonna, o della decolat\textsuperscript{60} di S. Paolo. Potrebbero essere, che nei lati si ponessero due grandi tavole di bassi rilievi di marmo bianco di 15 palmi di larghezza, et 12 d’altezza, e forse più, uno per parte rappresentant la conversione di S. Paolo, e lapidat\textsuperscript{a} di S. Stefano, e però in tal caso le prospettive dovrebbero haver riguardo a d.’ tavole, che una cosa non perdesse o confondesse l’altra. Si dicono tutti i pensierì perché chi farà i disegni, possi inventarne di molti sorti per incontrare il gusto di chi si havrà di sodisfarsi, e sarà forse meglio, perché il Dentone venghi desiderato in Roma da Padroni, quali già n’hanno qualche concetto.

5) Virgilio Spada on Bernini’s marbling at St. Peter’s, 1649\textsuperscript{201}

Circa le sei capelle della parte della basilica aggiunte da Paolo V., si può dire, ch’erano come nidi da colombi, e per tant’anni restate in tal forma quasi che s’aspettasse apunto, che la palomba uscita dal nido volesse sopra la prima catedra. Parve però alla Santità di Nostro Signore d’ornarle tutti sei, benchè Gregorio XIII, e Clemente VIII, non solo si risolvette d’ornarle tutte sei, mà con ornamento tale, che quelle di Gregorio, e Clemente, qualì in quel tempo furono lo stupore del mondo, in comparazione di queste paiono le sei capelle della parte della basilica aggiunte di Nostro Signore d’ornarle tutti sei, benchè e Gregorio volasse sopra la prima catedra. Parve però alla Santità s’aspettasse apunto, che la palomba uscita dal nido da Paolo V., si può dire, ch’erano come nidi da già n’hanno qualche concetto.

Di una cosa si hebbe gran timore, e fù che non si potessero trovar tanti mischi antichi bastanti ad incrostare il tutto, massime che si volevano le incrostature, non nel modo praticato comunemente, e nelle capelle di Gregorio e Clemente sottili al possibile, che poi d’anno in anno si sono vedute cadere, mancandoli l’anima dello stucco, e della pece, e non potendo quei pezzi così sottili resistere al freddo et humido di quella gran Basilica, mà volse i tagli fossero grossi assai.

Mà in effetto si ricognobbe dalla prevedenza di Dio e dalla diligenza di Monsignor Fransone Chierico di Camera uno de’ Prelati della Congregazione della fabbrica, al quale era appoggiato tal peso, che ne fosse ritrovata quantità tale, che non solo si supli al bisogno, mà si prese animo d’applicare anche al pavimento, come diremo, et sebene si fecero venire di francia di quei mischi modernamente ritrovati, nondimeno ciò si fece più per la bellezza di quel mischio, che merita the perspectives alluded to some theme, and it should be known that the chapel will be dedicated to either the Madonna or the Decapitation of St. Paul. Maybe two great bas-relief slabs in white marble (15 palmi long and 12 high, or more) could be placed on the side walls, one side representing the „Conversion of St. Paul“ the other the „Stoning of St. Stephen“, though in that case the perspectives should take into account these panels, so that one thing does not lose or confuse the other. All these ideas are being laid out so that whoever makes the designs can invent all sorts of them to meet the taste of those who must be satisfied, and perhaps it would be better if „Il Dentone“ came to Rome at the pleasure of the Patrons, who already have a few ideas of their own.

As concerns the six chapels in the part of the basilica added by Paul V, one may say that they were like dove cotes, and remained like that for so many years that actually one almost only waited for the dove which left the nest would fly above the first Cathedra. However, his Holiness decided to adorn all six of them, even though Gregory XIII and Clement VIII were content to adorn only one each of those situated in the part of the church made by Michelangelo, and the thing which caused most wonder was that not only did he resolve to adorn all six, but with such ornament that the chapels built by Gregory and Clement – which in their time were the wonder of the world – now seem by comparison with these [new ones] to be the work of Ebanisti […]

One thing was greatly feared, namely that it wouldn’t be possible to find enough antique marbles to clad the whole, especially since it was desired that the revetment should not be made as it is customarily (and in the chapels of Gregory and Clement) – as subtle as possible, which have been seen to fall away with every year, since they lack a proper mortar or pitch bedding, and as a result slabs as subtle as these cannot resist the cold and damp of that great Basilica – rather [Bernini] wished that the slabs should be very thick.

Yet, because of God’s providence and the diligence of Monsignor Fransone (Chierico di Camera, and one of the clerics in the building administration charged with this duty), a supply of marbles was finally found, which not only fulfilled our needs but exceeded them, with the result that it was decided to use them for the paving too (as I will say later). Even though it was necessary to bring these newly found marbles all the way from France, nevertheless it was decided more on the basis of the

esser posto frà gl’antichi, che perché ce ne fosse necessità, et oltre il numero grande di cotali mischi antichi, la qualità ancora concorse con la bellezza dell’opera, essendosi ritrovate macchie superbissime di mischi, come à gli occhi di tutti è patente.

Nel quale pavimento se bene lo compartimento de’colori, e de’mischi si hà dalla parte già fatta sotto la cuppola, et incontro le capelle Gregoriana, e Clementina, nondimeno havendo mostrato l’esperienza, che le sottili incrostature non resistono allii pesi, e movimenti, che occorrono de i castelli per nettare, e rapprezzare ciò che si sconcia, risolvette l’architetto Cavaliere Bernini oltre un buon lastricato, porre i marmi grossi mezzo palmo, e dove sono mischi farvi il letto di travertino glosso oncie cinque, et un’oncia di mischi sopra, e così si è divisato tutto il pavimento, al quale s’applica con gran fervore, et essendo una longhezza di palmi 310., et in larghezza palmi 120. oltre le sei capelle, è opera, che dàrebbe da pensare à più animosi massime in questi tempi, che la fabbrica di San Pietro hà perduto più di 20. mila ducati d’anno reddito nel solo regno di Napoli.

E non solo Sua Santità si è spaventato di tanta spesa, mà essendo rimaste ne’transiti frà una capella, e l’altra 24. colonne di travertino alte palmi numero 42., conoscendo l’indecenza, massime hoggi, che sono arrichite le capelle di tante gioie, hà voluto, che anche queste s’arrischichino, facendole di mischi, come già se n’è fatto contratto con obligo, che dintro l’anno santo sian tutte finite, e collocate à suoi luoghi.

6) Virgilio Spada, on the Cappella Spada in S. Girolamo della Carità, 1657

Mi figurai dunque di rappresentare la Cappella, come una stanza adobbata. Giàche le capelle anticam. 16 si chiamavano cubicula sanctorum, e considerata l’altezza sino alla cornice di palmi 26, altezza maggiore degli adobbi, che si costumano nelle communi stanze, almeno di un terzo, hebbi p bene che anche i teli fossero di larghezza maggiore, cioè di tre palmi d’architettu l’uno, e trovai che nella facciata dell’Altare vi andavano sette tele, et tre p ciaschedun lato, oltre la grossezza de pilastri, che sostengono l’arco dell’ingresso della Cappella. Et havendo in questa nna Chiesa di Congregate e alcuni soprapilastri di larghezza di palmi cinque, di rasi rossi, e gialli contratagliati di belliss. 17 disegno, risolsi d’imitar questi, riducendo il med. 18 disegno dalli cinque alli tre palmi.

I therefore contrived to represent the chapel as a room decorated with hangings. Since in ancient times chapels were called cubicula sanctorum [“Bedrooms of the Saints”], and given its height of 26 Palmi [approx. 6 m] to the cornice, the maximum height of hangings which are used in normal rooms, at least a third, I decided that the drapes were of greater width (that is to say 3 Palmi each), and I found that seven teli would go on the altar wall (three on either side) beyond the thickness of the pilasters that support the entrance arch into the chapel. And since we have in our church of the Congregation [S. Maria in Vallicella] certain pilaster-hangings (5 Palmi wide) beautifully designed with contrasting patterns of red and yellow, I decided to imitate these but reducing the same design from 5 to 3 Palmi [in width.]

E stando saldo nel pensiero d’una stanza adobbata,
in luogo di colonne e cornici al quadro dell’altare, vi ho
collocata quella Madonna miracolosa, che vi era prima,
donata già da Gregorio XIII al Sig. Oratio mio Zio…

Nei lati della Cappella vi si dovono collocare
quattro sole medaglie nel mezzo de i quattro teli di
tabì, ma non è stimato manco male il porvene sei col
ritratto di alcune persone di qualità della Casa…

E però si sono poste, come dicevo, da ciaschedun
lato tre medaglie ovate… doi scabelli sotto le due
medaglie di S. Francesco e B. Guido p servitio
dell’Altare, per posarci le carofine, e beretta del
Sacerdote, come se fossero d’hebban.

… e pche quei che muoiono, e si presumono salvi,
si suol dire dalla Chiesa, che requiescuno [sic] in pace,
si è creduto, che il letticiuolo da riposo sia più
proprio, che le casse, o urne, usate da altri.

E pche di Pietro Spada si potea dir tanto, che non
potia capire nella medaglia, se n’è fatta memoria nella
caduta del letticiuolo, si come nell’altro letticiuolo si
è fatto menzione di Oratio e Paolo nostro Padre e Zio,
ma questi restano senza medaglie, non essendo stato
possibile collocarne tante.

Quali balaustri attaccando i pilastri, che
risguardano la Chiesa, e che sostengono l’arco
dell’ingresso della Cappella, si sono fatti
uniformemente di marmo venato in piano, come se la
Cappella fosse cavata nel masso di simil marmo, et in
luogo di balaustri, si è fatto un certo lavoro più sodo
con certi fori ovati, et i sportelli di legno pareranno
della med.a natura senza che apparischino esser di
legno.

Resta la volticella della Cappella, quale è à botte, e
p uscire dall’ordinario, si è finta un’arco in mezzo
ovata, p la quale si vede pinto il Cielo di azzurro, et in
essa parte di cielo si vedono le undici stelle dorate, alle
quali gli Astronomi danno il nome di Vergine, situate
tali stelle, conforme che stanno in cielo, e con la
proportione delle grandezze celesti, e fra esse ho posta
la luna alludendo alla Beat.ma Vergine, significata p la
luna, e denominata p autonomasia la Vergine, e che
dal num.\footnote{Qualità, e sito delle stelle non conoscerà
esser quelle stelle la figura della Vergine lo potrà
conoscere da un carattere, ch’è posto nella grossezza
della volta, dove si finge esser tagliata, qual carattere è
nato ad ogni persona di qualche benché piccola
tintura di matematica, ma quando anche non fosse
conosciuta la figura, né il carattere, la luna, e le stelle
dorate in campo azzurro, non ponno se non dare gusto
all’occhio. Questa finestra ovata è cinta di gigli e rose
del naturale, fiori simboli della virginità.}

And steadfast in the concept of an upholstered room, in
place of columns and cornices around the altarpiece, there
I have placed that miraculous Madonna which was there
previously, given by Gregory XIII to my uncle Lord
Orazio…

At the sides of the chapel must be placed only four
medallions in the middle of the four teli di tabi, but it isn’t
considered so bad to even place six with the portraits of a
few worthies from our House…

And yet three oval medallions have been placed, as I
was saying, on either side… two consoles (below the two
medallions of St. Francis and the Blessed Guido) to serve
the altar, where the cruets can be set down, and the
priest’s beretta, as though they were made of ebony.

… e pche quei che muoiono, e si presumono salvi, si suol dire dalla Chiesa, che requiescuno [sic] in pace, si è finta una fenestra in mezzo
a legno.

And because one could say much about Pietro Spada
which cannot be understood from the medallion alone, he
is commemorated lying on the bed of repose, just as
Orazio and Paolo our father and uncle are commemorated
on the other bed, but they are left without any medallion
since it wasn’t possible to install so many.

The balusters join the pilasters, which face into the
church and support the entrance arch of the chapel, and
are uniformly made from marble with the veining placed
horizontally as though the chapel had been excavated from
a block of a similar marble, and instead of balusters a
more solid work has been carried out with certain oval
apertures, and the wooden gates will seem to be of
the same nature without them appearing to be made from
wood.

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wood.
All’intorno di questa volta a botte nell’estremità è un fregio con quattro spade negli angoli, e tre altre nei mezzì dei lati, che si veggiono con la punta verso le soprad.e stelle, alludendo alle sette spade, con le quali si suol dipingere la Vergine adolorata … et il rimanente del campo finge un mosaico d’oro.

Non lasciando di dire, che sopra il scalino dell’altare saranno quattro candelieri, et una croce di rame, cavato il disegno da un torcier del famoso Faenza, che si vede in casa del Sig.‘ Duca Mattei, degno veram.^[Antonio Gentili] di un tant’huomo, e fra li candelieri saranno due Urne di marmo nero con bugne di diaspro, stimate di buon disegno, e nobile con dentro reliquie, datemi da S.S.tà, portate di Germania

Around this barrel-vault at the very edge is a frieze with four swords in the corners, and three more at the midpoints of the sides, which can be seen with their points aiming at the aforementioned stars, thereby alluding to the seven swords with which it is usual to represent the grieving Virgin… and the rest of the background feigns a golden mosaic.

I should not omit that above the predella will stand four candlesticks, and a cross in brass, whose design is derived from a candelabrum by the famous Faenza [Antonio Gentili] which can be seen in the palace of the Lord Duke Mattei, truly worthy of such a man, and between the candlesticks will stand two urns of black marble with jasper bosses, judged to be of good design and noble, with relics within, given to me by His Holiness and imported from Germany.
7) Daniello Bartoli on the nature of intarsia (1677)\textsuperscript{203}

Io in più luoghi veduto lavori, e pruoce maravigliose dell'antica, e oggi di poco men che dimessa arte dell'intarsiare [...] Tutto è magistero dell'ingegno, e della mano, adoperantisi, l'uno a discernere, l'altra ad unire quelle diverse croste di legno, aventi un tal colorito, una tal vena, una tal macchia, e così lumeggiate e chiare, e così ombreggiate e fosche, che incontrandone l'una a lato dell'altra, ne provengono di tutt'esse organizzato e compostò ciò che si volle: ma con un passar dall'una foglia nell'altra, con tanta union di colori, che'egli non sembri un adunamento di molte scaglie di varj alberi, e di varj legni accozzati per arte, ma opera nata intera in un tronco, e tutto a caso comparita nel fenderlo [...] in queste opere intarsiate, si vuol far parere che la natura abbia fatto da arte, facendo che in esse l'arte non si possa distinguere dalla natura. L'ammirabile dunque, e perciò il dilettavole in un tal genere di lavori, non è egli nel vedere applicata una cosa ad esprimerne un'altra? con un inganno tanto innocente, quanto in tutta la composizion di quel falso, non v'è cosa che non sia vera. Or così avviene dell'adoperar ch'io diceva un che che sia, preso dalle istorie, dalle favole, dalla natura, dall'arte, a rappresentare un tutt'altro di ragion morale ch'egli non è: si veramente, che v'abba tanta proprietà e corrispondenza di scambievole proporzione tra 'l somigliante, e 'l vero, ch'egli, per così dire, non sembri artificio dell' ingegno ma filosofia della natura, che ne abba scritti per tutto quasi in cifera i precetti

In many places have I seen works and wonderful samples of the ancient and now almost discontinued art of inlay [...] It is all skill of the intelligence and of the hand, working the one to select, the other to weld together those different slices of wood, having a certain colour, a certain grain, a certain pattern, and alternately so light and clear and so shaded and dark, that when joined together, whatever one intended comes out as an effect of their union: but with shading from one leaf to another, with such mingling of colours, that it does not seem to be a grouping of many slices of various trees and of various woods artistically put together, but a work born of a piece in one tree-trunk, which quite by chance appeared when splitting it [...] in such works of inlay, one wishes to make it appear as if nature had imitated art, contriving in such a way that art may not be distinguished from nature. Is not the source of wonder, and therefore of delight in such works, the fact that one sees one thing expressed in another? the deception being all the more innocent in that in the whole composition of a false thing there is yet no element which is not true. The same happens when we use anything taken from history, from fables, from nature and art, to represent something in the moral order which it is not: in such a way that there should be so much appropriateness and correspondence of reciprocal proportion between truth and its likeness that the whole, so to speak, should not seem to be an artifice of the brain but in the philosophy of nature, as if nature had written, almost in cipher, her precepts everywhere

8) Michele Lazzari's personal Agate (1753)\textsuperscript{204}

La Natura nella produzione delle gemme, a detta di Plinio (a), ha in certo modo ristretto, e ridotto in compendio la maestà, e la grandezza sua, la quale in nessuna delle sue parti comparisce più maravigliosa, si per la varietà, che per i colori, per la materia, e per la venustà, e bellezza; di modo che la maggior parte degli Uomini crede,

When Nature produces gems, according to Pliny (a), She makes in a certain restricted and reduced way a compendium of Her majesty and grandeur, which appears no more marvellous in any other of her parts, either for its variety, its colours, its material, its comeliness and beauty; such that the majority of Men believe

che qualsiasi di esse sia oggetto bastevole a sollevare la mente umana alla intera, e somma contemplazione delle cose create.

that any single one of these objects is enough to lift the human mind up to the complete and utmost contemplation of created things.


\textsuperscript{204} [Lazzari, 1753 #72@267-287], this copy in Biblioteca Comunale degli Intronati, Siena, XC. I. 48; full series, 93 volumes, 1728-87.
Aggiungasi ai sentimenti di Plinio, che la commune estimaione a nessuna altra cosa dà pregio maggiore, che a quelle, che la scarsità loro fa essere più rare, e in conseguenza più desiderabili, essendo universalmente (non dirò già presso i Filosofosi) più ricercate quelle cose, che la penuria mette in prezzo, di quelle, che l’abbondanza avvilisce.

Quantì prodigi della Natura visibile per la moltitudine, e frequenza loro, e per essere di continuo sotto li nostri occhi, sono tenuti a vile, li quali sensatamente, e saggiamente considerati, sono maggiori delì più rari, e dellì più insoliti. Non ebbe Salomone in tutta la sua gloria vestimenti sì belli, e adornamenti sì vaghi, come li hanno i Gigli del campo. Chi attentamente considera una rosa, un gelsomino, e tanti altri si odorigosi, e si gentili fiorì, li riconoscerà, come miracoli, che ci fa la sommamente ingegnosa natura; e così tante altre cose, che ella forma a giorno per giorno, ed ora per ora. Se diligentemente venissero specolate, e s’indagasse in esse li suoi reconditi modi di operare, quante meraviglie non iscuopriessimo. Non iscorderemmo forse mirabilmente in tutte la gloria, e la grandezza di Dio, che giornalmente si legge nell’aperto libro della Natura, e non riconosceremmo ad ogni momento, quanto siano grandi le opere del sommo Creatore, e (a) quanto eccellenti, e perfette in tutte le cose, che ha volute fare. (b)

Ma poichè la nostra fantasia, ed immaginazione è adusta alla veduta di tali cose, giudica degne di maggior prezzo quelle, che rado si vedono, e non finisce mai di stupirsi, e di appagarsi nelle osservazioni di alcune operazioni, che il puro senso alla vista rappresenta, le quali in sostanza son, come nulla, in proporzione alle grandi meraviglie,

We must add to Pliny’s convictions, that common assessment gives no greater prize to any other thing than these things whose rarity makes them rarer, and consequently more desirable, since it is universal (I will not say already amongst the Philosophers) that those things, which penury gives a price, than those that abundance reviles, are more sought after.

Consider just how many prodigies of visible Nature are considered worthless because of their multitude, their recurrence and because they are always beneath our eyes. But, these same things, if wisely and judiciously considered, are of greater value than the most rare and most unusual things. Did not Solomon, in all his glory, have clothes and ornaments as beautiful as the lilies of the meadow? He who attentively considers a rose, a Gessamine, and many other equally perfumed and noble flowers, will acknowledge them as miracles, the which utterly ingenious nature makes for us; the same is true for many other things, which She creates daily, and hourly. If they were diligently contemplated, and one investigated in them Her mysterious workings, how many wonders would we not discover? Would we not perhaps glimpse in them all the glory and grandeur of God, whom one daily reads in the open book of Nature, and would we not recognise at every moment just how great are the works of the upmost Creator, and (a) just how excellent and perfect in all things that He has wished to make. (b)

Yet since our fantasy and imagination is accustomed to the sight of such things, they judge worthy of greater value those things that are seldom seen, and never gives up being amazed and satiated with observing certain operations, that pure sense represents to sight, which operations are in substance as nothing in proportion to the great marvels

(a) Magna opera Domini, esquisita in omnes voluntates eius. Psalm. 10. V. 2.

(b) Da questo principio si conoscerà da chiunque, che qualunque pregio si attribuisce in questo discorso alla Natura, non è se non in riguardo di quello che ne regola tutte le operazioni colla sua infinita sapienza.

271 che mercè di lunghe, e accurate investigazioni, la mente umana o scorge negli ammirandi artifici, che ritrova nel corpo umano un vero Filosofo, o nella formazione delle minutissime parti degli Insetti, o nella tessitura dell’erbe, e delle Piante, o in tante altre innumerabili cose, che opera la sapientissima Natura.

Non cede d’infinito intervallo la organizzazione di un Uomo vivo, composto di tante membra, e di tante parti, che servono a tanti movimenti; anzi la costituzione di ogni animale, e di ogni Insetto, alla unione di quelle macchie,

that, thanks to long and thorough investigations, the human mind either perceives in admirable artifices (that a true Philosopher discovers in the human body) or in the formation of the most minute parts of Insects, or in the tissue of herbs and plants, or in the innumerable other things that most wise Nature performs.

Is the organisation of a living man an iota less complex, (being composed of many members and many parts, which serve for many movements) or, indeed, the constitution of every animal, and every Insect, [any less complex than] the union of those marks, with which the portrait, and the only external disposition the same

(a) Magna opera Domini, esquisita in omnes voluntates eius. Psalm. 10. V. 2.

(b) From this principle it will be understood by anybody that whatever merit is attributed in this discourse to Nature, is not if not in respect of He who regulates all Her operations with His infinite wisdom.
con cui il ritratto, e la sola esteriore disposizione in questa Pietra la stessa Maestra Naturae ha figurato?

Ma pure, se facciamo sommamente ammirabile, e pregevole ciò, c'è raro, e perciò, se Parelio, o altra nuova luce, o fenomeno apparisce nell’aria, il più delle genti, che non ammirano la bellezza del Sole, e di tanti altri corpi celesti, rivolte tosto al Cielo, osservano colà, dove quell’insolito lume risplende: così preziose chiamiamo le Gemme, le Perle, l’Oro, e l’Argento, perché di queste cose non ne abbiamo a dovizia; preziosissimo per questa stessa cagione aremo a riputare questo Calcedonio, da me posseduto, o Diaspro, come da alcuni Gioiellieri, per esser molto duro, e lustrante, è tenuto.


È opinione dei Naturalisti, che tutte le gemme, e specialmente quelle, che sono assai chiare, e lucenti, abbiano origine da materia fluida, e che nella formazione loro siano commesse, e collegate insieme con qualche glutine alcune laminite, osservandosi alcune volte in esse, ed anco nel diamante certe commessure, e fibre; e sono persuasi allo’contro, che quelle cose, le quali non ebbero alcun principio fluido non possano avere quella disposizione di parti, che genera la diafanità, e lucidità. Argomento di ciò presso loro è il vetro, che è formato di materia liquida, e qualche altra osservazione, fatta sopra l’argento, e il piombo, li quali sciolti coll’aqua forte in chiaro cristallo si cangiano.

Può darsi un saggio dell’artificio Meccanico usato dalla Natura nel macchiar le pietre, descrivendo un fenomeno, che ho udito conservarsi nel Museo del Signor Giuseppe Monti in Bologna. Consiste questo in una specie di libro, composto dalla Natura di alquanti fogli grossi mezzo dito. La Pietra da principio solida, era formata da strati uguali soprapposto l’uno all’altro, e facilmente separabili. Fatto di essi il disgiungimento, è la divisione, conservando l’rdine de’fogli, si vede il primo dipinto con colori assai forti, e con macchie insieme confuse. Il secondo appare una meno oscuro, con macchie miste, che genera la diaphanousness and lucidity. As proof of their argument they cite glass, which is formed from liquid material, and make some other observations about silver, and lead, which when dissolved with acid change into clear crystal.

One may provide an example of the Mechanical artifice used by Nature in marking stones, by describing a phenomenon, which I heard is preserved in the Museum of Signor Giuseppe Monti in Bologna. This phenomenon consists of a sort of book, composed by Nature from several pages half a finger thick. The stone, solid from the start, was formed of equal layers, one lying above the other, and easily separable. Having disconnected them, but maintaining the order of the leaves, one sees that the first is painted with extremely strong colours, and with markings that are blurred together. The second appears less indefinite, with markings that are more bleached, somewhat smaller and better defined. The sequence continues in this way until, in the last layer, [we see]...
più dilavate, alquanto più piccole, e meglio contornate. In tal guisa proseguisce il lavoro di mano in mano, finché nell’ultimo strato ci si rappresenta una boscaglia, bastamente distintamente che e tale dall’occhio senza alcuna prevenzione, si riconosce. Quinci parmi comprendere,

come i fiughi minerali passando da uno all’altro strato, mentre la materia è ancora tenera, e molle, si vadano estenuando, e come le immagini impresse, talvolta a passo a passo acquistino perfazione.

Questo modo di operare mi fa ancora capace d’intendere, come nei marmi, e ne’ sassi si trovino bene spesso rin serrate sostanze eterogenee; cioè Insetti, Erbe, pezzolini di legno, paglie, Crostacei marini, ed altre cose, e tal fiata qualche gocciola di fluido, mobile, e limpido, simile all’acqua in apparenza; ma che non è certamente acqua; perché non si gela nei più rigidi inverni.

Posti questi principi, omettendo, per non dilungarmi sotterrando dal mio proposito coll’entrare in questioni di Fisica, alcune altre osservazioni, e specolazioni, affermare indubitatamente potiamo, che la Natura nel creare il nostro Calcedonio ha mescolato sughi di qualità rossigna, e gialliccia, e condensandoli, e consolidandoli, li ha con ordinata combinazione, e con ingenosa, e conveniente unione di vene, così ben distribuite, e disposte, ad esprimere con naturale simmetria una faccia umana: della quale in certe memorie

domestiche del principio del secolo passato, trovo scritto, che rassomiglì ad un Duca di Baviera, di cui però non si accenna il nome.

Porta questo ritratto le bassette sopra le labbra, la barbetta sul mento, un Collaretto intorno il Collo, e Collana, alla cui estremità pende oscura macchia, così formata, che dir si può rappresentante il Tosone. Dalle spalle discende il mantello con molte pieghe, le quali sono segnate dalle vene, o fibre della pietra in modo, che reca stupore, e piacere a chi con attenzione minutamente considera ogni particella, che a fare la configurazione di questo mezzo busto concorre.

In una accidentale combinazione non saprei certamente desiderare effigie più diligenze, e più finita. Una copia casuale, che squisitamente all’originale somigli, non farà forse comparsa tra i guochi della Natura, nè credo, che sia mai per comparire. Nè meno un valente Pittore imita talmente le tavole di Maestro insigne, che da occhio perito non se ne discerna la differente maniera, e la copia dall’originale non si distingua. Lo stesso dicasi dei ritratti: e se la mano ammaestrata dall’arte, e dall’uso a tanto represented woodlands, sufficiently distinct, and such that the eye can recognise it without any prejudice. Hence I seemed to understand,

how the mineral traces passing from one layer to another, while the material is still soft and pliant, gradually decrease, and like the impressed images, from time to time gradually acquire perfection.

This way of operating makes me better able to understand how heterogeneous substances are very often found enclosed in marbles and stones: like Insects, Plants, wood splinters, straw, marine Crustaceans, and other things, and every so often a drop of fluid, as mobile and limpid as water in appearance; but something which is clearly not water, because it does not freeze in the most unrelenting winters.

Having laid out these principles, but avoiding entering into questions of Physics so as not to excessively digress from my argument, we may indubitably affirm some other observations and speculations: that Nature, in creating our Chalcedony, has mingled juices of a reddish and yellowish quality, and by condensing and consolidating them, She has with ordered and ingenious combination, and a convenient union of veins, so well distributed and arranged them as to express a human face with natural symmetry. I have found written, in certain domestic memoirs

from the beginning of the last century that [this face] resembles a Duke of Bavaria, whose name is however mentioned.

This portrait bears moustaches above the lips, a goatee on the chin, a Lace Collar around the Neck, a Chain at whose extremity hangs a dark mark, which is so formed that one might say it represents the Toison d’Or. From the shoulders hangs a mantle with many folds, which are delineated by the stone’s veining or fibres in such a way that causes amazement and pleasure in those who consider every tiny part in detail, which is necessary to do to make a replica of his half-bust.

In an accidental combination I could certainly not wish for a more diligent or finished image. A casual copy, flawlessly resembling the original, will perhaps not appear amongst the games of Nature, nor do I believe that it will ever appear. Even less [would] a talented Painter imitate so well the panels of the illustrious Master, who with expert eye does not discern the different style, and distinguish the copy from the original. The same may be said of the portraits: and if the hand that is trained by art and practice cannot reach such a level,
non giunge,
non può certamente operarsi dal caso una esatta similitudine.

Qualche poco di sproporzione tra la fronte, e le altre parti della faccia umana, che nel segare i marmi, con cui furono coperte, ed ornate le pareti della Chiesa Ducale di S. Marco, si manifestò in vista di tutti; come riferisce nel 2. libro dei Minerali, Trattato 3. cap. I. Alberto Magn. Rappresentavano le macchie di questa Pietra una Testa reale con la corona, e con la lunga barba; ma con la fronte troppo alta: Frontem videbatur in medio habere nimis altam; ed esso ne fu testimonio di veduta. Scivimus omnes, qui aderamus, hoc a natura fuisse pictum in pariete. Fuit autem pictura eiusdem coloris cum lapide.

La faccia della Pietra, che è spianata, e pulita, è molto splendida per un esquisito lustro, che in superficie a guisa di specchio li ricopre. Il quale dimostra, che sia durissima, come anco s'è osservato al tocco della mola, e per questa durezza, e per le sue macchie rossigne con alcun' altra gallicia, alcuni diaspro la giudicano.

278 Ma sia diaspro (a), o Calcedonio, nella quale discussione non voglio ingaggiar

(a) P. I. Mariette, Traité des Pierres Gravées, A Paris 1750. Nei diaspi si trova un numero infinito di colori. Ve ne sono de' fioriti con un esquisito lustro, e con maniera particolare accoppiati, che producono uno smalto di più colori, più vago forse di quello di un mazzo di fiori di varie spezie, e che oscura quello dei marmi più belli. Ve ne sono de' neri, de' rossi, de' gialli, de' verdi, de' bruni, di leonati, di un colore, che tira al fulvo, e de' sanguigni, li quali hanno molte macchie, o punti rossi, che la natura ha seminato sopra un fondo di un verde assai bello.

Intorno il Calcedonio varie son le opinioni. Questa Pietra, secondo Plinio nel lib. 37. cap. 7. avea presa la denominazione dalla Città di Cartagine, dove si arrecava, e questa Città si appellava Carchdvn, ed era una spezie di Carbonchio. Non credo, che abbiano miglior ragioni coloro, che, volendo descriverci il Calcedonio, dicono, che il suo colore tira al giallo; mentre altri pretendono, che tenda al Turchino. Mi pare ancora, che si debba rifiutare l'opinione di Marbode, che colloca questa Pietra tra il Giacinto, e il Berillo, e che vorrebbe apparentemente dar ad intendere, che il suo colore è una mescolanza di rosso, e di verde.

279 lita, ella è opera bella, vaga, ed ammirabile della natura, alla quale sebben si risguarda, dobbiamo giudicare, che nulla ad essa sia impossibile; benceh' non arriviamo sempre ad intendere, come essa operi. Egli è certo che si serve di modi mirabili, ed a noi quasi inopinabili, come osserva il sommo Filosofo, e Matematico Galilei, nel fare le sue operazioni, che a noi sembrano meraviglie, e benceh' siano all' intelletto nostro d'infinito stupore, sono prodotte da lei con somma facilità, then it can certainly not effect by chance an exact resemblance.

A certain lack of proportion between the forehead and the other parts of that human face, that in sawing the marbles with which the Ducal church of San Marco [Venice] was clad and ornamented, was manifest to the sight of all; as Albertus Magnus reports in Book II, Treatise 3 chapter 1 of ‘De Mineralibus’. The markings of this Stone represented a royal Head with a crown, and with a long beard, but with an overly high forehead: “It seemed to have a not very high forehead in the middle”, and this was eye witness testimony. “All of us who were there knew that this thing had been painted by nature in the wall. In fact, the painting was the same colour as the stone.”

The face of the Stone, which is smooth and polished, is most splendid for an exquisite lustre which covers its surface like a mirror. This finish shows that [the stone] is very hard, as was also observed at the touch of a grindstone, and because of this hardness, and because of its reddish markings and some yellowish ones, some judge it to be a jasper.

But I do not wish to engage in discussions about whether it is jasper (a) or Chalcedony.

(a) P. I. Mariette, “Traité des Pierres Gravées”, Paris 1750. One finds an infinite number of colours in jaspers. There are flowery ones with lively colours, which are also coupled in a particular way, that they produce a multi-coloured enamel, perhaps more beautiful than that of a bunch of flowers of many kinds, and which puts in the shade that of the most beautiful marbles. There are black ones, red ones, yellow ones, green, brown, tawny, of a colour tending to fawn, and blood-coloured. The latter have many markings, or red points, that nature has sown over a background of a most beautiful green.

There are various opinions about Chalcedony. This stone, according to Pliny (bk. 37, chap. 7) took its name from the city of Carthage, whence it came, and this city was called Carthum, and it was a species of Carbuncle. I do not believe that other writers are any more correct who, wishing to describe Chalcedony, state that its colour tends towards yellow; still others will have it that it tends towards deep blue. It further seems to me that one must refute the opinion of Marbode [of Rennes], who sets this Stone between Hyacinths and Beryls, and who apparently gives us to understand that its colour is a mixture of red and green.
e semplicità; e quello, che a noi è difficilissimo a intendersi, ad essa è agevolissimo a farsi. Certi intelletti poco penetrativi pensano, che molte cose siano impossibili ad esser fatte, e giungono fino

280 a negar fede ai sensi, anche dopo averle vedute fatte, perché non conoscono le forze della Natura, e non sanno, che la sua potenza (a) è quella, che I Filosofi gentili chiamavano Dio; o non credono, che Iddio con la sua onnipotenza, con la sua grandezza, con la sua maestà, e con la sua immensità (b) riempia il Cielo, e la terra.

Non abbiamo pertanto a misurare la forza, e la grandezza della Natura col disamintare le sue parti disgregate, perchè le meraviglie, che fa ad ogni istante, non sarebbero credute, se non si considerassero in complessi.

Nè meno si deve pensare, come molti pensano, attribuendo a miracolo quelle cose, delle quali ignorano le cagioni, o giudicare, come altri giudicano, li quali non credendo le operazioni stupende della Natura, perchè non conoscono, come detto abbiamo, la sua potenza, disapprovano, disprezzano, e ributtano ogni cosa, come imposta.

(a) Plinio Hist. Nat. lib. 2. cap. 7. Naturae potentia id est, quod Deum vocamus.
(b) Hierem. 23. 24. Coelum, & terram ego imploeo.

281 Non si nega, che la umana sagace industria non abbia trovato l’artificio di colorire i marmi più duri, facendoli penetrare da succhi fattizzi, ed appropriati. Ma queste fraudi non sono tanto malagevoli ad essere scoperte.

Chi crederebbe, che fosse stata operazione casuale della Natura quell’Agata, che era posseduta da Pirro, Re degli Epiroti, che nel terzo secolo avanti l’Epoca di Cristo, nostro Signore, fece la guerra di Taranto contro i Romani, nella quale, se stiamo sopra la fede di Plinio, si vedevano le nove Muse con Apollo, formate dal concorso, e combinazione naturale delle macchie, (a) l’uno con la cetra, e le altre con le proprie insegne? Queste cose non sono elleno dilettevoli a sapersi, e più ancora amene ad intendersi, quando la sottigliezza dell’umano ingegno creda esser giunta ad introdursi nei penetrati più segreti della Natura ad iscoperirne il meccanismo?

Non è meno prodigiosa quell’Agata


282 Orientalale, che si conserva nella Galleria Cesarea, nella grossezza del cui fondo è incavata una Tazza, il cui diametro è di un braccio di Vienna, is difficult for us to understand, is for her is extremely easy to do. Certain intellects, that have hardly penetrated the matter, consider that many things are impossible to do, and even

end by denying faith in their senses, even after seeing the things done, because they do not understand the forces of Nature, and do not know that Her power (a) is that which the pagan Philosophers call God; or they do not believe that God, in all His omnipotence, greatness, majesty and immensity (b) fills Heaven and Earth.

We must therefore measure the force and greatness of Nature by investigating Her disjointed parts, because the marvels which She makes ad every moment, would not be believed is they were not considered as part of a whole.

Neither should one think, as many do, to attribute to miracles those things whose causes are unknown, nor hold the opinions of those others, who disbelieve in the marvelous actions of Nature because they do not know (as we have said) Her power, and disapprove, scorn and reject every thing as a fraud.

(a) “The power of nature is that which we call God” (Pliny, Natural History, bk. 2. chap. 7).
(b) “Do not I fill heaven and earth?” (Jeremiah 23:24).

One cannot deny that wise industry of man has not discovered the artifice of colouring the hardest marbles, making artificial and suitable juices penetrate them. But these frauds are not difficult as to be discovered.

Who would believe that it just was a chance operation of Nature in that Agate, which Pyrrhus (King of the Epirotes, who made the war of Taranto against the Romans) possessed in the third centurty before Christ our Lord, in which – if we trust in Pliny – were visible the nine Muses along with Apollo, delineated by the natural confluence and conjunction of the veining (a), Apollo with his lyre and the others with their proper attributes? Are not these things pleasing to know, and even more agreeable to understand, when the subtlety of human skill believes it has succeeded in infiltrating the most secret recesses of Nature to discover her mechanisms?

No less extraordinary is that Oriental Agate

(a) “Not by art, but by nature of her own accord through the flowing veins” (Pliny HN 37.1.5).

282 which is kept in the Galleria Cesarea, out of whose overall thickness has been carved a bowl, whose diameter is one Vienese braccio less two fingers.
meno due dita.

Nel concavo di essa si legge questa iscrizione, adombrata da naturale concorso, ed unione di macchie, che formano queste lettere:

B. Xristo r. s. xxx.

Chi desiderasse leggere la interpretazione, può vederla nel primo Tomo dei Commentari della Libreria Cesarea di Pietro Lambeccio. Il quale le applica il passo di S. Luca al v. 40. del cap. 19. per renderla misteriosa.

Ho veduto due Pietre rappresentanti il prospetto di due Città, o piuttosto due raccolti di Case con qualche torre senza ricinto di mura, non però molto espresse al naturale; cosicché le chiamarei uno scherzo informe della Natura.

Il Boyle commemora un’ Agata, che aveva in se una macchia movibile, come una nuvola. Anche il de Boot ne fa menzione di un’altra, nella quale era benissimo rappresentato un Vescovo colla sua Mitra. Quantità grande di Sassi si trovano nell’ Egitto superiore con belle macchie, rappresentanti varie cose naturali. Nelle vicinanze di Baden nell’Alsazia nel podere di un Signor di quel luogo si trova nella terra (se creder dobbiamo alle relazioni) molta quantità di sassolini cubici di varie grandezze, di sei facce quadre, ed uguali, sopra ognuna delle quali sono segnati, e regolaramente distribuiti i numeri, quali sono nei Dadi artificiali. Io ne ho veduto alcuni, che sono stati portati in Venezia; ma non osarei dire, che fossero così formati dalla natura, più tosto che dall’arte, se non per rapporto all’altro fede.

I curiosi, che di tali scherzi prendono piacere, devono alle volte appagarsi di certi delineamenti, che più da vicino si accostano all’obietto, cui si confrontano. A qualche divario, che necessariamente ci si ravvisa, supplisce la fantasia, che corregge, o almanco minora i difetti come si direbbe.

In the concavity of this bowl one reads this inscription, delineated by the natural coursing and union of the veining, forming the following letters:

B. Xristo r. s. xxx.

Whoever wants to read an interpretation of this, should look in Tomo 1 of Pietro Lambeccio’s Commentaries on the Libreria Cesarea. Lambeccio brings to bear the passage from St. Luke 19: 40 to render the mystery.205

I have seen two Stones representing the scene of two Cities, or rather two groups of Houses with the odd tower but no city walls, though not very natural looking; such that I would call it a shapeless jest of Nature.

Boyle celebrates an Agate, which had within it a moving marking, like a cloud. Also de Boodt mentions another, in which was very well represented a Bishop with his Mitre.206 A great quantity of stones are found in Upper Egypt with beautiful markings, representing various natural things. In the neighbourhood of Baden, in Alsace, on the estate of a Lord of those parts, is found in the earth (if we can believe the reports) a great quantity of small cubic stones of various sizes, with six, equal faces, on each of which were marked and regularly distributed numerals, like artificial Dice. I have seen some of those that were brought to Venice; but I would not venture to say whether they were so formed by nature, rather than art, but only because others says so.

The curious, who take pleasure from such jests, must sometimes satisfy themselves with certain lineaments, which from close-up approach the object with to they are likened. Fantasy reconciles the odd difference, which must necessarily be evident, by correcting or at least diminishing the defects of Nature: if indeed it does not reconcile rather too much. Occasionally we wonder at the clouds stirred by the winds, or we think we admire the

205 “And he answered and said unto them, I tell you that, if these should hold their peace, the stones would immediately cry out” (Luke 19:40). Cf. Fabbri on the “sweating columns” of Jerusalem: “if stones can be said to sing praises to the Redeemer when men are silent... what wonder is there if stones should weep for the death of the Redeemer while men laughed it to scorn?”: Fol. 113a; Aubrey Stewart, The Book of Wanderings of Brother Felix Fabri (circa 1480-1483), 2 vols. (London: 1893-97): 2: 358.

della Natura: se pure non supplisce anche troppo. Nelle nuvole agitate da venti, miriamo talora, o ci par di mirare stravagantissimi apparimenti, ed in ispecie giganti, Centauri, ed animali feroci, effigiatì da una forte impressione. Ma la imaginativa eccede ogni limite, e con presta congiuntura fa molte considerazioni oltre il rappresentato,

284 quando alcune straordinarie apparenze dell’terrore, e dalla superstizione sono state concepite, come prodigi. Le Aurore Boreali, di cui tanti portenti sono stati narrati da Scrittori, delle cose fisiche poco informati, e particolarmente, che si azzufassero in cielo eserciti di mostri, combattenti con armi infuocate, ne fanno pruova.

Ho udito dire, che in Germania sia stato stampato un libro, che illustra una Pietra naturale, in cui effigiò un Crocifisso; ma non ho mai veduto il libro, né saputo, che ne sia l’Autore. Può essere, che egli tratti piamente, ed anco filosoficamente di questo venerando Fenomeno. Io confesso di essere alquanto sorpreso nell’osservare, che nell’età del Gentilesimo, gli abozzi naturali, stampati nei gruppi, e nelle radici degli alberi, ne i marmi, a pulitura ridutti, rappresentavano le Deità in quei tempi venerate, come nell’Agata di Pirro, memorata da Plinio, e nei tempi del Cristianesimo si rinvegano Crocifissi, e Madame, o qualche simbolo della nostra religione. Nessuno si persuaderà, che la Natura in macchiando le pietre operi alla moderna, o vada alla moda, ed abbia imparato a dipingere,

285 adattandosi ai tempi, ed alle circostanze.

Uguale considerazione potrebbe cadere sopra il mio Calcedonio, il quale presso gli antichi Greci, o Romani, che non usavano le bafette, nè la barbetta, ed a qualchì affatto nuovi farebbero riusciti gli abbigliamenti, e questa foggia di vestimenti, sarebbe perduta di pregio.

Io non voglio lasciar addietro un pensiero, che mi raggià per la fantasia, il quale mi suggerisce, che da si diversi, si vogli, e si mirabilmente ordinati accozzamenti di macchie, bella e certa induzione, e considerazione far si possa, che tutto ciò, che ha formato la Natura, è indirizzato o al bisogno, o all’util, o al comodo, o al diletto degli Uomini: e che sussidi no, ed ammirando tante belle operazioni, che alla giornata opera la Natura, le quali dalle casuali osservazioni, o dalle curiose investigazioni si scuoprono, senon arriviamo a conoscere most extravagant apparitions, and especially giants, Centaurs and ferocious animals pictured by a strong impression. But the imagination exceeds every limit, and with its swift conjectures makes many considerations beyond the represented,

when some extraordinary apparitions are conceived from terror or superstition, as being prodigies. The Aurora Borealis, to which many portents have been attributed by Writers little informed in Physics, and in particular they attest to armies of monsters fought in the sky, combatants with weapons aflame. I have heard tell that in Germany a book has been printed which illustrates a natural Stone, in which a Crucifix is depicted; but I have never seen the book, nor known who its author is. It may be that he deals piously and also philosophically with this venerable Phenomenon. I confess that I am somewhat surprised by observing that, in the Pagan era, natural sketches, moulded in groups, and in the roots of trees, or in marbles which were given a good polishing, represented the Deities venerated in those times, just as in the Agate of Pyrrhus recorded by Pliny, and that now in the era of Christianity Crucifixes and Madonna or other symbols of our religion are unearthed. Nobody will be persuaded that Nature, in marking these stones operates in a modern manner, or follows fashion, and has learned to paint, adapting herself to the times and circumstances.

Equal consideration could be given to my Chalcedony, which amongst the ancient Greeks and Romans, who sported neither moustaches nor goates, and to whom this style of clothes and trimmings would have had little value.

I do not wish to continue without considering a thought that is circulating in my mind, namely the notion that from such diverse, charming and marvellously ordered miscellanies of markings, one may make a beautiful and certain deduction and consideration that everything that Nature has formed is designed either with a view to necessity, use, comfort or delight of Men: and that when we see and admire the beautiful effects that Nature produces daily, and which are discovered either by casual observation or curious investigation, if we do not arrive at scientifically apprehending the artifice with which they are formed — and I firmly believe that the Laws of nature are immutable, perpetual, always constant and

287 Lazzari is probably referring to the image in Oliger Jacobaeus, Musaeum Regium seu Catalogus rerum tam naturalium, quam artificialium, quae in Basilica Bibliothecae augustissimi Daniae Norvegiaeque monarchae Christiani Quinti Hafniar asservantur (Copenhagen: Joachim Schmetegen, 1696): 46, pl. XI, fig. 1.
Chapter 11: From Gems to Clouds

scientificamente l’artifizio, con cui sono formate (credendo io fermamente, che le Leggi della natura siano immutabili, perpetue, e sempre costanti, e conservino sempre lo stesso tenore

nel suo operare) ci dobbiamo indurre almeno a lodare con perpetui encomi il Creatore di esse, confessando non essere effetto alcuno in Natura, ancorché minimo, alla cui intera cognizione arrivar possano gli ingegni più specolativi. Onde quando vediamo queste immagini, e configurazioni di sembianze (a) Umane, di Città, di Fortificazioni, di Paesi, di boscaglie; o leggiamo in Plinio di quelle Agate, che rappresentano Greco Dendrachates; e di altre, nelle quali erano formate apparenze di fiumi, di boschi, di animali, di Cochii, di Carrette, di bardature di Cavalli, e di altre cose, che dalle macchie naturali di alcune pietre sono dimostrate, non occorre stupirsi, se in combinazioni pressoché infinite di figure, e di tinte, talora le cause fortuite, e naturali, dalle quali non va mai disgiunta la volontà della Natura, ch’è la creatrice di ogni cosa, abbiano il suo ingegno, e ci si affacci un disegno regolare, che a qualche cosa, da noi conosciuta, più, o meno sia somigliante. Il che deve facilmente intervenire, perché

(a) Hist. Nat. lib. 37. cap. 10.

286 innumerabili sono gli obbietti, ai quali gli abbozzi fortuiti possono paragonarvisi. Ovvero, se abbassando un poco, ed umiliando il nostro spirito anco nella contemplazione di questi giochi, e bizzarrie, volessimo creder, non aver dimostrazione alcuna, che convinca il nostro intelletto della loro formazione col mezzo d’una ingegnosa, e mirabile combinazione, e condensazione di materie petrifiche, e di sughi variamente colorati, ed in conseguenza confessare di saper poco, o nulla le cagioni di questi effetti, che chiamiamo maravigliosi, e stupendi, almeno in relazione all’assoluta, ed infinita sapienza, di chi li ha creati, di cui nimis profundae factae sunt cogitationes (a); non arrossiriamos punto a vergognarsi del nostro corto intendere.

(a) Natural History, bk. 37. chap. 10.

287 there are countless objects which chance designs may be compared with. Or, to put it another way, if by slightly lowering and humbling our spirit also in the contemplation of these games and whimsies, we were to believe, without any demonstration to convince our intellects of their formation by means of an ingenious and marvelous combination, and condensation of petrific materials, and varicolored juices, and consequently confess that we knew little or nothing of the reasons for these effects that we call marvelous and stupendous, at least in relation to the absolute and infinite Wisdom, of He who created them, of Whom “nimis profundae factae sunt cogitationes” (a), we would have little motive to be ashamed of our lack of understanding.

(a) Ps. 91. v. 5.
Chapter 12: Painting in Stone, the (Al)chemical Approach

The trend of using marble as a support for painting that Sebastiano del Piombo had set in motion reached its heyday in the first decade of the seventeenth century, but did not survive much beyond 1630. Even so, Pliny’s ancient lament that revetment had superseded painting and that artists had “begun to paint in stone” was never forgotten.

There was some issue, however, as to what Pliny had actually meant, and this depended upon what version of Pliny’s text one had to hand. One tradition recorded the words “coepimus lapide depingere” (“we have begun to paint in [or with] stone”) and another “coepimus lapidem depingere” (that is “we have begun to paint on the stone”). In fact, the case ending was not decisive, because Pliny could always have spoken metaphorically. But first impressions became important when one arrived at the passage immediately following, where the ancient encyclopedist alluded to a technique for inserting, or somehow instilling, markings into the marble surface (\textit{HN} 35.1.3: “vero maculas, quae non essent in crustis, inserendo unitatem variare”). One could interpret the phrase simply to mean inlay, which is how most translators deal with it today; alternatively it must refer to some sort of staining process, which is how Agricola understood the words as early as 1546, when he noted that the technical innovation dated to the reign of Nero.\footnote{“Scrive Plinio, che ne lo Imperio di Nerone si truovò di porre le macchie in quelli marmi, dove non sono; variandoli per questa via ne le lastre loro; e facendone Ovato il Numidico; e distinto purpura il Synnadico; come i vezzi di que’ tempi havrebbero voluto, che fossero questi marmi da se stessi nati,” \textit{Georg Agricola}, \textit{De la generatione de le cose, che sotto la terra sono, e de la cause de’loro effetti e nature} (Venice: Michele Tramezzino, 1546): Lib. VII, 321-22. This passage is, for example, misinterpreted in the opposite sense in Mark C. Bandy and Jean A. Bandy, eds., \textit{Georgius Agricola. De natura fossilium} (Textbook of mineralogy) (New York: Geological Society of America, 1955).} This reading was not such a leap. Already Alberti, after
observing rust stains, had expatiated on the coloring effects of various chemical agents on marble.²

**Tornioli and the “Veronica”**

However, it was not until the 1630s that two Sienese painters, Niccolò Tornioli and Michelangelo Vanni, reassessed the metaphor and devised a technique for painting “naturally” within the marble support itself. By 1640, and perhaps as early as the 1620s, Niccolò Tornioli (1598 - after 1651) pioneered the technique of painting into stone, making pigment penetrate the depth of a slab without leaving a drip on its surface.³ Tornioli seems to have painted several compositions with this process, all of which have been lost. Most were simply scherzi and bizzarrie, but one panel was “una Veronica con il ritratto del Salvatore effigiato nel Santissimo Sudario,” which, it is recorded, the painter had publicly

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² “Marble, for instance, when in contact with lime, not only loses its purity but is defiled by foul specks of blood; so prudish is marble that it will hardly tolerate contact with any but its own. Is this not so? It disdains smoke; anointed with oil it goes pale; bathed in red wine it grows murky; the sap of the chestnut tree turns it black, and stains it so deeply that no amount of scraping will remove the marks,” De Re Aedificatoria, lib. 3, cap. 9; Joseph Rykwert, Neil Leach, and Robert Tavernor, eds., Leon Battista Alberti. On the art of building in ten books (Cambridge, MA/London: MIT Press, 1988), 74-75.

sawn down the middle to prove the efficacy of his technique, by demonstrating that the image had truly penetrated the stone and now veritably lay within. Given the fact that Tornioli executed this marble painting for Cardinal Maurizio di Savoia, owner of the Sacra Sindone or Shroud of Turin, not to mention the generic usage of the word “Veronica” (= “Vera Icona”), it seems inescapable that Tornioli simulated this relic, one which had already been reproduced on innumerable occasions for devotional use in various north Italian communities. If so, once Tornioli’s marble painting had been sliced down the

4 “Questi pretendeva di aver trovato il segreto di tingere il marmo grosso un dito, finché il colore penetrasse dentro, e così dipinse una Veronica e fece segare il marmo, e fu trovata la stessa pittura su le due superficie del segamento,” Giovanni Gaetano Bottari, Raccolta di lettere sulla pittura, scultura ed architettura, scritte da più celebri professori che in dette arti fiorirono dal secolo XV al XVIII, 7 vols. (Rome: Per gli Eredi Barbiellini, 1754-73): 1: 308, n. 1. A passage in a manuscript by Francesco Gori Gandellini in the Biblioteca Comunale di Siena (L. V. 15, at ff. 183-184) cited in extenso by Mazzoni also cites Tornioli’s “arte bella di colorire il marmo” and that “al Cardinal Savoja ridetto splendido suo protettore dipinse in una lastra di marmo della grossezza d’un dito una Veronica con il ritratto del Salvatore effigiato nel Santissimo Sudario, nella qual lastra da esso fatta segare fu trovato con gran contento del prelato la stessa bella pittura sopra le due superficie del segamento”: Gianni Mazzoni, “Appunti su Michelangelo Vanni pittore e mercante d’arte,” La Diana Siena 2 (1996): note 34. Gori Gandellini goes on to point out that Michelangelo Vanni could not have invented the technique, as the S. Giorgio tomb claims, since Tornioli was certainly using it in the 1640s.

Though Mazzoni only dates the manuscript “ante 1784,” it is presumably at least thirty years older as Gori Gandellini is almost certainly Bottari’s source in explaining the possible causes of the phenomenon. Gori Gandellini goes on to say that the technique “credesi fosse eseguita con estratti di minerali,” since rust stains were visible on the façade of the Chiesa del Refugio, where vermilion stains in the stone resulted from the “bleeding” of iron pegs and the yellow ones from their lead jackets.

5 The term Veronica was often used to describe the Shroud, as an erroneous etymology still prevailed that the name elided Vera Icona, though by rights it should only refer to the Veronica – or Edessene image – then housed in the Roman church of S. Silvestro in Capite, and also known as the “Sudarium”: Isa Ragusa, “The Edessan Image in S. Silvestro in Capite in the Seventeenth Century,” in Arte d’Occidente, temi e metodi. Studi in onore di Angiola Maria Romanini, ed. Antonio Cadei (Roma: Sintesi informazione, 1999), 939-46. Moreover, Wilpert’s eyewitness description of the Veronica in 1916 suggests that whatever he saw was asymmetrical, “ein viereckiges Stück Stoff von heller, durch Alter etwa vergilbter Farbe mit zwei schwachen und ungleich großen rostbräunen Flecken, welche miteinander zusammengängen”: Josef Wilpert, Die römischen mosaiken und malereien der kirchlichen bauten vom IV. bis XIII. jahrhundret: unter den auszipien und mit allerhöchster förderung Seiner Majestät kaiser Wilhelms II, 2 vols. (Freiburg im Breisgau: Herder, 1916): 2: 1123.

The Shroud had been the possession of the Savoia family since 1453, and in Turin since 1578. For Tornioli’s relations with Savoia, see Matthias Oberli, Magnificencia principis: das Mäzenatentum des Prinzen und Kardinals Maurizio von Savoien (1593-1657) (Weimar: Vdg, 1999): 148, 151, 155, 157, 186, 236. Oberli does not mention the marble paintings, nor does Antonella
middle and unfolded, it would have replicated the intrinsically symmetrical construct of the Shroud as much by process as design (fig. 12.1). And if this was an example of courtly *ingegno*, the humour was deadly serious, for in the 1590s Gabriele Paleotti, like countless Byzantine iconodules before him, had adduced the Shroud’s status as divine artefact to support the propriety of religious images. Early in the next century, in fact, Marino would unrelentingly pursue the metaphor of the Shroud as the canvas painted with God’s blood.

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6 Cf. Chapter 7.

7 Sheldon Grossman, “The Sovereignty of the Painted Image: Poetry and the Shroud of Turin,” in *From Rome to Eternity. Catholicism and the Arts in Italy, ca. 1550-1650*, ed. Pamela M. Jones and Thomas Worcester (Leiden: Brill, 2002), 188-200. The Shroud had entered the canon in 1594, with the publication of Gabriele Paleotti, *De imaginibus sacraris, et profanis Illustriis. et Reverendiss. D. D. Gabrieliis Palaeotti Cardinalis, libri quinque* (Ingolstadt: Ex officina typographica Daudidis Sartorii., 1594). Paleotti enumerates eight ways in which an image can come into being as a sacred image; firstly if God effects it (“per essere stata commandata da Dio”), and secondly by the physical contact of a support with the body of Christ or His saints (i.e. the Shroud, or the Veronica).
Tornioli had achieved supreme sleight of hand. He had *manu-factured* an "acheiro-poieton* and handcrafted the "image not made by human hands" by displacing his artistry one remove from its production. The quasi-mystical impact that the image anticipated Secundo Pia’s famous photograph of the Shroud taken in 1898. Only once Pia developed the negative in his laboratory did the inverse image miraculously elucidate all the Saviour’s lineaments. Pia had done no more than hold a glass up to its radiations, and this seemingly authorless and artless metamorphosis has since raised the image to the status of an icon in its own right (fig. 12.2). But the premeditation of Tornioli’s technological coup may be compared with another, more contemporary, attempt to capture the qualities of the Acheiropoieton, Claude Mellan’s famous *Sudarium of Saint Veronia*, of 1649.9 There the visage of the Son of God is conjured up from a single spiralling line, imprinted in the paper as Christ’s face was in the veil, and his lineaments arise out of an abstract, unerring, cosmic line (fig. 12.3). It emanates from the centre with the precision of a watchspring, a line whose

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8 Marino calls the Shroud “a figure whose painter was the dying Christ, the brushes nails, and the pigment blood” (“Figura il cui pittor fu Christo esangue, Pennelli i Chiodi, e fu colore il sangue;” Giovanni Battista Marino, *Il Ritratto del Serenissimo Don Carlo Emanuele Duca di Savoia. Pimegirico* (Venice: Appresso il Ciotti, 1624); stanza 198; the original publication date was 1608); “Do you want the brushes? Here are the nails. The panel? Here is the Cross. The mahlstick? Here is the lance. The lights? Here are the lanterns. The shadows? Here are the *tenebre*. The canvas? Here is the Shroud. The vermillon? Here is the blood” (“Volete i pennelli? Ecco i chiodi. La tavoletta? Ecco la croce. La bacchetta? Ecco la lancia. I lum? Ecco le lanterne. I profondi? Ecco le tenebre. La tela? Ecco la Sindone. Il cinabro? Ecco il sangue”): Giovanni Battista Marino, *Dicerie sacre del Cavalier Marino. La Pittura, Diceria Prima, sopra la Santa Sindone* (In Venetia: Appresso Giacomo Violati, 1615): 171. As Grossman points out, the metaphor continued to prosper, and is for example used by Camillo Balliani, a Milanese theologian in 1610 (Grossman, “Sovereignty,” 200). Interestingly enough, Dale has suggested that the *Sindone* was originally (early 11th century) an actual artwork, an *epitaphios sindon*: i.e. the embroidered shrouds displayed in the Orthodox church at Easter, which functioned both as temporal icons and represented the body and blood of Christ in the Eucharist: William S. A. Dale, “The Shroud of Turin: Relic or Icon?,” *Nuclear Instruments and Methods in Physics Research* B29 (1987): 187-92.

automation seems to preclude human involvement. Tornioli’s technique, his use of infiltrating acids to inscribe the image in the stone, its final disclosure when the two slabs were separated, and even its very reproducibility share analogies with printmaking. More fundamentally, Mellan’s engraving and Tornioli’s lost marble achieved an unheralded level of representation, almost hypnotic images that seemed both to objectify and disembodied the image at the same time. Their effacing of the vagaries of artistic process and, therefore, distancing of temporality sought not to portray an artwork, but the product of divine intervention.

Tornioli’s celebrity was shortlived. He presumably executed a cherub head painted on a marble polyhedron (Appendix 11a.3), a work commissioned by Paolo II Giordano Orsini (1591-1656) since we are told that this too was executed with the penetration technique. The depth of infiltration became plain because the image repeated not only on the back face, but also anamorphically on the facets wherever the block had been cut obliquely. By such devices Tornioli caught the attention of Virgilio Spada, who recommended him for work at St. Peter’s where his special skills, however, eventually brought about his downfall. Employed by Spada to execute mosaics in the Cappella del Sacramento at St. Peter’s, he made suspiciously good time from February 1647 to April 1649 before being sacked before the Jubilee even began, on the grounds of incompetence.\(^\text{10}\) It was specifically charged, in fact, that he had painted over, or actually tinted, mosaic work rather than setting any tesserae.\(^\text{11}\) Tornioli was obviously cutting

\(^{10}\) In Mid 1647 Virgilio Spada also admonished Tornioli to finish the chapel of S. Filippo at the Oratory.
corners in the normally laborious practice of mosaic work, but no such disgrace befell the man who would fill Tornioli’s shoes in this speciality, Michelangelo Vanni (1585-1672).

**Michelangelo Vanni, the Sala Regia and the Tomb of Francesco Vanni**

It can hardly be coincidence that Vanni, who also made a short career out of the “penetration technique,” would work as a mosaicist “restoring” the paleo-Christian apse mosaics at St. John in Lateran (1662-63), and there must be some suspicion that he also tinted the tesserae there. Vanni was also Sienese and in

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11 In June 1658 Virgilio Spada recalled that Tornioli “fece fare de spropositi, oltre la tenuità d’aver adoperato colori sopra essi musaichi” and a contemporary letter from the mosaicist Scipione Santucci specifies that the executed “mosaic work” in the chapels was dismantled “perché fu trovato che i pittori in cambiò dè servirsi dè Masaici, quelli li tingeavano di colori;” the painter Spadarino, then at work on the mosaics of the Cappella del Coro, was apparently dismissed on the same charges but Spada exonerated him of any complicity with Tornioli ([Cannatà, 1988 #182#176 and notes 23, 25, 26]). Tornioli may have masked his subterfuge for a while by claiming that he was trying to varnish the mosaics: another letter from Spada, to Innocent X, states that “d. o lavoro fu tralasciato, perché Nicolò Tornioli pittore, che haveva preso a porre in opra i smalti, e fare il mosaico non riuscì,” Minna Heimbürger-Ravalli, Architettura, scultura e arti minori nel Barocco italiano: ricerche nell’Archivio Spada (Florence: Leo S. Olschki, 1977): 205 and note 26. He had executed The Baptism of Jesus, Confirmation, Anointment with Oil and the Penitence as well as the mosaic frieze in the cupola: Heimbürger-Ravalli, Architettura: 205 and note 27. Given Tornioli’s disgrace and estrangement from Spada, it is unsurprising that no marble painting by Tornioli is recorded in Spada’s collection or cabinet: Cf. Giuseppe Finocchiaro, Il museo di curiosità di Virgilio Spada: una raccolta romana del Seicento (Rome: Fratelli Palombi, 1999).

This was not a novelty. In Cyprus, and probably many other places that await similar investigation, orange-vermilion and bright red glass replicated by tinting white marble tesserae with tetroxide: Arthur H. S. Megaw and Ernest J. W. Hawkins, The Church of the Panagia Kanakaria at Lythrankomi in Cyprus: Its mosaics and Frescoes (Washington DC: Dumbarton Oaks Center for Byzantine Studies, 1977): 133-34.

Rome his skills found especial favour amongst his compatriots and compari, the ruling Chigi family.\textsuperscript{13}

Vanni executed numerous easel pieces (Appendix 11a.5, 6, 8) but his crowning achievement occupied a pivotal location, albeit for a short duration. Between 1662 and 1664, Alexander VII had Vanni execute a scene of God Entrusting the Ten Commandments to Moses (\textbf{fig. 12.4}) as the centerpiece of the floor in the Sala Regia of the Quirinal Palace (Appendix 11a.7). The special attraction of this panel was not simply that the Laws themselves had been stone tablets, but they too had been acheiropoetic. The tablets were God’s own handiwork, had been written \textit{Digito Dei} – with His own finger – and their concession to Israel immediately preceded His injunction to destroy the idols of Canaan (\textit{Exodus} 32:16, 34:11-13).

The slab graced the pavement for almost a decade until Clement X had it removed in 1672. It is unrecorded whether Clement was swayed by concern for its preservation, dissatisfaction with its artistry, or simply superstition about it being trampled, but the stone is now immured on a landing of a minor staircase to the palace gardens, where it has escaped public notice and disappeared from sight for over three centuries.\textsuperscript{14} The only other surviving artefact that Vanni produced in this medium is still on public view and even a preparatory drawing

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\textsuperscript{14} My thanks to Jennifer Montagu for pointing out to me that this stone was still extant, and to Dott. Francesco Colalucci, Director of the Servizio per la Conservazione del Patrimonio Artistico, for allowing me to examine it and providing a photograph.
\end{flushright}
survives for it (fig. 12.6). The artefact in question is the sepulchral monument that Michelangelo and his brother Raffaele raised in 1656 to their painter-father, Francesco Vanni (1563-1610) in S. Giorgio, Siena (figs. 12.7-9).\footnote{Biblioteca Comunale degli Intronati, Siena, E. I. 15, c. 30. The drawing was first published (as by Michelangelo Vanni) in Marco Ciampolini, “Introduzione al disegno senese del Seicento,” in Pitture senesi del Seicento, ed. Giovanni Pagliarulo, Riccardo Spinelli, and Giovanni Pratesi (Turin: Allemandi, 1989), 141-42, fig. 72; Mazzoni, “Appunti,” 258 (as by Raffaello Vanni); Bernardina Sani in Alessandro Angelini, Monika Butzek, and Bernardina Sani, Alessandro VII Chigi (1599-1667): il papa senese di Roma moderna (Siena: Maschietto & Musolino, 2000): 168 (cat. no. 96), who also, unaccountably, attributes the drawing to Raffaello Vanni.}

At first glance this memorial seems to be an item of provincial baroque commemoration, distinguished only by the trompe l’oeil of its rich marble inlay. Closer inspection, which is invited by an inscription heralding a “new art of painting \textit{in} stone,” reveals that the intarsia itself is an illusion simulated by staining one sheet of marble without leaving a drip of paint on the surface. A central white marble panel, figured as a fictive aedicule with stemma-bearing putti, apparently stands within a white marble frame displaying bones bound by banderoles with moralising mottoes. The infill between the two frames is made of the only naturally colored stone, a polished black marble, and Michelangelo Vanni no doubt delighted in combining its funereal blackness with a reference to the \textit{paragone}.

Both Tornioli and Vanni jealously guarded the secrets of their technique, and in Tornioli’s case, neither the artworks themselves nor the details of his method have come down to us. Vanni’s “manoscritti segreti” also vanished after passing into the hands of a certain Abate Ciacceri, but fortuitously Mazzoni has recently discovered a partial recipe scribbled (probably by Vanni) on the back of an old contract (Appendix 11b.1).\footnote{Biblioteca Comunale degli Intronati, Siena, E. I. 15, c. 30. The drawing was first published (as by Michelangelo Vanni) in Marco Ciampolini, “Introduzione al disegno senese del Seicento,” in Pitture senesi del Seicento, ed. Giovanni Pagliarulo, Riccardo Spinelli, and Giovanni Pratesi (Turin: Allemandi, 1989), 141-42, fig. 72; Mazzoni, “Appunti,” 258 (as by Raffaello Vanni); Bernardina Sani in Alessandro Angelini, Monika Butzek, and Bernardina Sani, Alessandro VII Chigi (1599-1667): il papa senese di Roma moderna (Siena: Maschietto & Musolino, 2000): 168 (cat. no. 96), who also, unaccountably, attributes the drawing to Raffaello Vanni.} The initial lines are in cipher, and the
technique would be impossible to reconstruct in its entirety were it not that the Jesuit polymath Athanasius Kircher and the chemist Albrecht Gunter had collaborated to crack the code in the 1650s or 1660s (Appendix 11b.2). Kircher expressly comments that their common goal was to expose the Cavaliere Vanni’s secret, that he had made great pecuniary profit from it, and that he would not disclose it to a soul. Vanni had clearly provoked some animosity, and later on Lanzi would even suggest that he had exploited his father’s tomb to advertise his invention to posterity and snatch the credit from Tornioli.17

Both Vanni, Kircher and Gunter all effectively stained the marbles with weak acids, though the latter team apparently succeeded in creating a range of colors rather than the restricted sepia tones of the Vanni Monument: the red cross is enamelled and giallo di Siena and black marble supply the other colors. Vanni’s interest in acids is attested by his catastrophic restoration of Domenichino’s Virgin and Child and Saints Philip and James the Less (1626-7) about 1650, which he virtually stripped to the canvas with over-enthusiastic cleaning.18 Vanni’s novel techniques must have been the talk of the town, but Bernini in particular cannot have been ignorant of them since Gabriele Renzi, his scarpellino

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16 Romagnoli says that a manuscript of Vanni’s secret recipe was left to the well known Sienese librarian, the Abate Giuseppe Ciacceri (Romagnoli, Biografia cronologica de’ bellartisti Senesi (Ms. 1835, anastatic facsimile edition):X, 57). For Ciacceri (1724-1804), see Daniela Bruschettini, “Il carteggio di Giuseppe Ciaccheri nella Biblioteca Comunale di Siena,” Bulletino senese di Storia patria 86 (1979): 144-205; Mazzoni, “Appunti,” 259, 265 (note 36).

17 “Michelangiolo con quel suo epitafio provvide ch’egli [Tornioli] non usurpasse la gloria della sua invenzione,” Luigi Lanzi, Storia pittorica della Italia dal risorgimento delle belle arti fin presso al fine del XVIII secolo, Ed. 3., ed., 6 vols. (Bassano: G. Remondini e figli, 1809): 244. Raising a monument to Francesco Vanni forty-six years after his death was an unusual decision, but could also have been prompted by the death of Michelangelo’s wife Caterina Piccolomini, whom he mourns in the inscription.

and marmista of choice from the 1650s on, was supplying Vanni with the marbles into which to paint. 19

Domenico Beccafumi

The fact that both Tornioli and Vanni were Sienese gives pause for thought, regardless of which artist learnt the technique from the other, for their sponsorship of this technology points to a heritage and pride particularly Sienese. The object of their common desire must have been the uniquely figured marble pavement of the Duomo and in particular the honeycombe crossing executed after the cartoons of Domenico Beccafumi between 1519 and 1531 (fig. 12.10). 20 Vasari lauded Beccafumi’s achievement, impressed by the figures that were ”more marvellous than beautiful” and by the manner in which it simulated the chiaroscuri of painting. 21 Indeed, the scenes ranged from chiaroscuro patterns

19 Jennifer Montagu supplied me with the following three references from the Chigi archives: Flavio Chigi Mandati, vol. 536, no. 3321, “A mro Gabrielle Renzi scarpellino… intero pagam.to di tre lastre di marmo da lui date per dipingere per servitio della Emin.za… in conformita dell’atestazione fatta dal Sr. Cav.re Michelangelo Vanni Pittore… 17 Giugno 1660 – s.38;” Ibid., no. 4225: “al Sig.r Cav.re Michelangelo Vanni Pittore… per haver dipinto in marmo tre quadri per servitio… 16 Marzo 1662 – s.100.” Renzi’s Giustificazione is in vol. 475, under June 1660: “Gabriele Renzi scarpelino; marmero novo del polvazzo… quale servono per dipingere il Sig.re Cavaliere Vanni quale disse che serano per sua santitá. Per avere fatto una lastra de marmere novo a tutta robbia mia longa p.mi 8 1/2, larga p.mi 3 1/4 grossa 1/12 quadrata da quattro bande spianata sotto e sopra rotata e inpomiciata per potere dipingere – s.16, Per doi altre lastre… – s.32… Io Michelang.o Vanni afermo il prezzo di dette Pietre scudi trenta otto cosi daccordo s.38”

20 For Beccafumi’s pavement, see Robert H. Hobart Cust, The Pavement Masters of Siena (1369-1562) (London: G. Bell and Sons, 1901): 88-98; Bruno Santi, Il pavimento del Duomo di Siena (Florence: Scala, 1982); Marco Collareta, ””Pittura commessa di bianco e nero:’ Domenico Beccafumi nel pavimento del Duomo di Siena,” in Domenico Beccafumi e il suo tempo, ed. Fiorella Sricchia Santoro, Paola Barocchi, and Nicole Dacos (Milan: Electa, 1990), 652-76; Bruno Santi, “Il Beccafumi nel pavimento del duomo di Siena,” in Domenico Beccafumi, ed. Mario Di Giampaolo and Piero Torriti (Milan: Electa, 1998), 201-15 (mainly a resumé of the previous two studies). For the cartoons, see Barbara Pike Gordley, “The Drawings of Beccafumi” (PhD, Princeton University, 1988), 100-41. These are mainly iconographical studies. The first source to consider the fortuna of the floor appears to be Bottari (cited in the following notes) reprised by Lanzi, Storia pittorica.I, 243-44. For the Duomo floor prior to Beccafumi’s intervention, see Gail Schwarz Aronow, “A Documentary History of the Pavement Decoration in Siena Cathedral, 1362 through 1506” (PhD, Columbia University, 1985).
of ponderous majesty (*Moses Breaks the Tablets of the Commandments*), to panels of extraordinary tonal and chromatic range (*Sacrifice of Abraham*), to a fictive all’antica frieze where yellow marble inserts were used to suggest touches of gilding (*Moses Brings Forth the Spring from the Rock*). Beccafumi’s achievement was ever after the object of Sienese pride, and concrete evidence of their technical mastery. The Sienese academician Teofilo Gallaccini even thought that it had paved the way to the Medici Chapel at San Lorenzo in Florence.

Vanni’s scene of *God Entrusting the Laws to Moses* in the Sala Regia was a fresh reminder of Beccafumi’s justly-celebrated panel of the same subject on the cathedral floor and, in designing the monument to his father, Vanni drew inspiration from another Beccafumi artefact, the Del Barga tomb in the left transept of San Francesco, Siena (fig. 12.11).

The definitive difference between Beccafumi’s products and Vanni’s was, of course, that the shadows on the Duomo floor were inlays of grey marble rather than post-hoc staining. But Beccafumi’s judiciousness, and the technical expertise of his stonecutters, were just too miraculous for some to believe that the floor had been accomplished without trickery. In 1640 Gallaccini felt compelled to write to Tornioli, of all people, quashing any suggestion that the floor was anything but commesso-work. Nevertheless, Beccafumi’s marvellous floor

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21 “queste figure sono piuttosto maravigliosi che belli”: Vasari-Milanesi, 647.

22 Collareta, “Pittura commessa,” 654.

continued to excite speculation. De Brosses, for example, compared it to a cameo, and the belief that it was artificially tinted was hard in dying. Over a century after Gallacini’s letter (1759), Bottari was to repeat the myth that Beccafumi had invented a technique for coloring marble in order to draw a lineage from Beccafumi’s floor to Vanni’s tomb. Bottari expressly based his opinion on the observations of his intellectual pen-pal, the Parisian historian and connoisseur Pierre-Jean Mariette (1694-1774), who not only argued that Beccafumi had tinted the stones once they were laid, but claimed that the technique stretched back to Duccio di Buoninsegna. Once again, at the distance of a century, the

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24 Teofilo Gallaccini, Siena, to Niccolò Tornioli, Rome, 13 October 1640 published in Bottari, *Raccolta di lettere sulla pittura, scultura ed architettura, scritte da’più celebri professori che in dette arti fiorirono dal secolo XV al XVIII*: 1: 295-301. Gallaccini names Matteo di Giovanni as the “primo inventore degli ombreggiamenti nelle commetiture de’ marmi per dar loro il rilievo, e la concavità” (297) rejects any suggestion that Francesco Vanni – his drawing master as a youth – was in possession of any technique for tinting stones (299), and affirms that they are clear and present signs of the “commettiture” in the Duomo floor (299-300). He also mentions that Vanni had a marquetry panel (of the *Conversion of St. Paul*) by Beccafumi, possibly a trial panel for the Duomo floor.


26 Bottari says “Questo sepolcro di marmo… è tutto inciso con linee… ma il marmo poi è colorito con colore artifiziato soprapposto per rappresentare le cose… sicchè a prima vista sembra questo sepolcro fatto di marmi commessi di più colori. Fu detto, che Mecherino [Beccafumi] trovò il segreto di tignere i marmi di chiaroscuro, ma in questo sepolcro ci sono tutti i colori. Questi certamente si davano al marmo coll’ estratto di qualche minerale, perchè si sono osservate alcune colonne, che avevano un pernio di ferro nel mezzo, che essendosi arrugginito, il color della ruggine è giunto fino a tignere la superficie di dette colonne,” Giovanni Gaetano Bottari, ed., Giorgio [edited with notes by Bottari Vasari, Giovanni Gaetano], *Vite de’ più eccellenti pittori, scultori e architetti* (In Roma: Per Niccolo e Marco Pagliarini… MDCLIX-[MDCCCLX], 1759-60):2:517, in the appendix “giunta alle note del tomo secondo”, 56. Bottari specifies that the in-situ observations of Beccafumi’s pavement were made by Mariette, presumably on his Italian journey of 1718-20.

27 Letter from Mariette to Bottari, 14 April 1759: “In un luogo della Vita del Beccafumi, il Vasari si è manifestamente ingannato per conto del famoso pavimento del duomo di Siena. Egli lo spaccia come opera, in cui entrino marmi di più colori; e che secondo la sua descrizione sia intarsiato, e fatto di pezzi, come quei lavori, che si chiamavano tarsie. Io l’ho veduto, quando passai da Siena, e l’ho fatto riscontrare dopo poco, e ho trovato, che l’ombre, che sono sul marmo, vi sono state impresse per mezzo di qualche liquore, ch’ha penetrato il marmo, e lo ha tinto, e ne ha fatto una specie di disegno: dove i tratti, imitando quelli, che si sogliono far sulla carta con la penna, sono stati fatti d’incavo con lo scalpello sul marmo, e ripieni d’una mastice nera. Questo metodo fu
speculation was quite sensibly refuted by the Sienese erudito on the spot, Mariette’s friend Guglielmo della Valle, who cited the evidence of his eyes and the prohibitive costs that would have been entailed by such tinting. Although Della Valle grudgingly acknowledged the skilful effects of Vanni’s tomb, he otherwise dismissed it as a vulgarity and likened the entire technical enterprise to a hunt for the philosopher’s stone.

De Caylus and Sansevero. The Eighteenth-century Revival of Painting in Stone

Mariette himself, however, had an agenda other than historical accuracy in mind, for his 1759 letter to Bottari on the subject of “painting in stone” published the news that attempts were afoot in Paris, as he wrote, to reproduce the technique of Beccafumi’s floor. Without any doubt, he referred to the experiments of the Anne-Claude-Philippe de Tubières de Grimoard de Pestels de Lévis, Comte de Caylus. De Caylus, hot on the success of having rediscovered the lost art of encaustic painting, would report to the Académie Royale des Inscriptions et Belles-Lettres in a public lecture (27 April 1759) that he had

praticato altre volte da Duccio pittore antico Senese, dal quale prese il modello il Beccafumi. Questo artificio fu posto in dimenticanza fino al tempo del Vanni, che lo ravvivò, perché io ne ho veduto il suo epitaffio fatto in questa maniera nella chiesa di s. Giorgio in Siena. Se i tentativi, che si son cominciati a fare a Parigi, riuscissero, voi lo vedeste tornare alla luce per la quarta volta.” (Vasari, Vite de’ più eccellenti pittori, scultori e architetti: tom. IV, 344).

28 Guglielmo Della Valle, Lettere Sanesi di un socio dell’ Accademia di Fossano sopra le belle Arti (Rome: Giovambatista Pasquali, 1782-86): 3: 130, 215-17. “Non ci vuole di molto per convincersi dell’ errore, in cui sono coloro, i quali credono che questi marmi siano coloriti per arte. Oltreche costrebbero assai di più di quello non costino presi dalle cave Sanesi e di Carrara tali, e quali sono coloriti dalla natura, riuscirebbe più difficile il macchiare con arte in quel modo, e con quel disordine, con cui si vedono macchiati que’ marmi, che non il tagliarli, e unire le macchie come si uniscono i colori su le tele per trarne i chiari-scuri, le vesti, e le carni delle figure” (130).

29 “Se vi fossero in detto sepolcro tutti i colori, sarebbe esso una vera toletta da Arlecchino… Ciò nonostante non fanno cattivo effetto queste macchie, e l’artefice, che vi riuscì lodevolmente è benemerito dell’arte…chiunque da tale ricetta presumesse di potere rinvenire questo segreto, perderebbe il ranno, e il sapone: tanto essa è imbrogliata, ed è appunto come la ricetta del lapis-philosophorum, fatta per impazzire con dispendio, e con fatica” (Della Valle, Lettere: 3: 217).
rediscovered, in collaboration with the Parisian physician Majault, a technique for “painting in marble” (Appendix 11b.3). De Caylus was convinced that the technique was an ancient invention, citing Pliny and the Byzantine alchemist Zosimus as evidence, and supplied two recipes for tinting marble, one in a sanguine tint and the other in shades of black. In the same year, the painter Joseph-Marie Vien, who had formerly executed encaustic paintings to de Caylus’ recipe, carried out three works with the new, marble-tinting method and exhibited them at the Salon.

Contemporary with de Caylus’ disclosure, the enigmatic Neapolitan aristocrat and alchemist Raimondo di Sangro, Principe di Sansevero (1710-1771), repeated the feat in his palace and the adjoining church that he had made the family chapel (1749). In both buildings Sansevero devised a paste covering for the floors that hardened into a lustrous, faux-marble veneer (fig. 12.12).

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31 The Cappella Sansevero (or S. Maria della Pietatella), still awaits truly exhaustive analysis, however see Rosanna Cioffi Martinelli, La Cappella Sansevero: arte barocca e ideologia massonica (Salerno: Edizioni 10/17, 1987); Augusto Crocco, Breve nota di quel che si vede in Casa del Principe di Sansevero D. Raimondo di Sangro nella città di Napoli (Naples: G. Colonnese, 1967): 22-23: “In due delle sudette stanze [of the Palazzo Sansevero] vi è un Pavimento d’una particolare composizione del Principe, la quale, quantunque si ponga in opera tenera, come una crema di vari colori, diventa poi fra pochi di dura, come il marmo: i lavori, che vi si veggono, sono dell’ultima bellezza, e formati a foggia di marmi di varj colori; tanto che pel lustro, che hanno, ciascheduno gli crede di marmo. Suppone il Principe che questa sia stata la base (benchè coll’aggiungimento di altre materie, che non farebbero al caso di contraffare i marmi colorati) della composizione de’ Graniti Orientali, i quali certamente non erano prodotti dalla natura, e di cui se ne veggono in Roma degli Obelischi, e delle Colonne, fattevi trasportare fin da’ tempi degli antichi Romani dall’Egitto.” This anonymous text was originally published in 1767, and its author is believed to have been G. G. Origlia (kind reference of Mario Bevilacqua).

The labyrinth floor that di Sangro laid out within the chapel, using this technique, now survives only in the area in front of his own funerary monument.
Tellingly, Sansevero’s success in duplicating marble by this means led him to reaffirm the medieval belief that oriental granites, like that of Aswan, must be man-made products of a similar process. When it came to tinting white marble, à la Vanni, Sansevero could boast ninety-six different “mischi” that he faked with such skill that litterati and guidebooks agreed they could not be distinguished from the originals. His secret recipe also supposedly ensured that the marble hardened to the consistency of granite and could take a high polish.  

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32 Crocco, Breve nota: 22-23: “In una cassetta con diversi piani si veggono messi per ordine novantasei quadrelli di Marmo bianco di Carrara, i quali sono tutti colorati di ogni sorta di colori. La maggior parte di essi contraffanno varie pietre conosciute, di maniera che non si distinguerebbero dalle naturali, se non vi fosse lasciato a bella posta dalla parte di sotto qualche luogo non colorato; e le rimanenti sono ideali, e di vaghissimi colori fuori dell’ordine naturale. I suddetti colori entrano nel marmo tanto, che lo penetrano da banda a banda, ancorché sia delle grossezza d’un piede; e possono colorirsi delle colonne di qualunque grandezza, qualsivoglia grosso lavoro. In oltre, stante la suddetta profonda penetrazione de’ colori, possonosi i marmi già colorati segare in più pietre: imperciocchè si trovano sempre gl’istessi colori in tutte le suddette fette, che si erano dati alla superficie. La più speciosa Invenzione del Principe, per rispetto a questi Marmi colorati, è che acquista il marmo di Carrara, dopo che’l è stato colorato, la stessa durezza de’ Marmi Orientali: il qual pregio si conosce dal pulimento, che riceve il detto Marmo, che di sua natura, essendo il più tenero, acquista un lustro eguale a quello de’ detti Marmi Orientali e Antichi, e come questi de’ lavorar si lustrarsi; giacchè, se si ponesse in pratica la maniera, colla quale si lustrano i Marmi bianchi, non riceverebbe esso un bel lustro.

Tutt’i Bassi-rilievi, siccome se ne veggono alcuni fatti dal Principe, possono colorirsi al naturale, e fanno una vaga figura. Varj Quadri di Marmo bianco si veggono dipinti con belle figure di color rosso di varie spezie; ma alcuni pajo assolutamente dipinti di chiaroscuro d’un bel Carminio, ed altri d’un bel colore di Cinabro.

Si osservano varj Quadri di finissimo Basso-rilievo di Marmo bianco, il cui fondo è lustrato, come altresì lo sono i lavori dell’intaglio, come appunto è quella gran Lapida del Tempio... Questa sorta di lavoro non può assolutamente farsi con niuna spezie di scarpello, o di burino, si perchè il Marmo non potrebbe ridursi a quella così grande sottigliezza, senza potersi terminare alcuno lavoro. Giunge a tal segno la finezza de’ lavori, che possonosi farsi col mezzo di questa Invenzione del Principe, che si veggono alcuni merletti a guisa di fino punto d’Inghilterra intagliati nel Marmo, i quali arrivano ad ingannare lo sguardo di chi gli osserva.

La più bella tra le Invenzioni del Principe è quella di contraffare il Lapislazuli con piccolissima spesa in tal guisa, che non vi ha Professore, che possa distinguerlo dal vero, dopo che è stato segato in sottili fette. In questa Pietra si veggono bene espresse quelle spezie di macchie di oro, tal quale si veggono nel vero Lapislazuli, ed ha l’istessa durezza, e lo stesso peso per l’appunto del vero.”

that, but Sansevero could supposedly bleach the most highly colored stones to absolute whiteness, though what possible profit such a procedure could yield is utterly baffling. To cap it all, Sansevero bragged he had taught de Caylus everything he knew about encaustic technique and the art of dying marbles as well. These claims prompted de Caylus’s Italian correspondent, the Theatine Paciaudi, to brand the Neapolitan an imposter and plagiarist.

It is difficult to see, however, how Sansevero could have come across de Caylus and Majault’s recipes, since their public lecture was not given until over two weeks after Paciaudi penned his poison letter, and Caylus and Majault’s text was not published in summary until 1764, and not in extenso until 1802.

33 Origlia says the palace apartments also contained samples of encaustic painting “di una maniera molto più vaga e bella di quella già ritrovata dal Conte di Caylus” (Crocco, Breve nota: 25). Richard states di Sangro “m’a assuré qu’il ne devoit rien aux artistes François, que cette découverte étoit le fruit de ses recherches, dont il avoit expliqué tous les procédés à M. le comte de Caylus,” Richard, Description historique et critique de l’Italie ou nouveaux mémoires sur l’état actuel de son gouvernement, des sciences, des arts, du commerce, de la population & de l’histoire naturelle: 4: 209. It is unknown when and where di Sangro could have met de Caylus.

Moreover, Sansevero lived in Naples, just a few miles from the excavations at Herculaneum that de Caylus claimed were his inspiration for both encaustic painting and tinting marble. He was certainly acquainted with Kircher’s researches as he had studied at the Collegio Romano in his youth. Sansevero doubtless also knew the articles of De Lanis and Dufay, and possibly the mysterious manuscripts of Michelangelo Vanni as well. To complicate matters still further, in the 1780s Della Valle quite clearly recounts that his friend Abate Ciacceri had sent a copy of Vanni’s secret recipe to Mariette, which had been the basis of de Caylus’ experiments. Whichever of these men holds true claim, marble tinting cannot have been quite the stop-press innovation that both inventors claimed if a Venetian connoisseur writing in 1753 could mention the “factitious juices” used to impregnate marble, en passant, as if such practice required no further explanation.

Faking gems had, of course, long been practised by fraudsters and would be alchemists. When Montaigne visited Florence in 1580 he remarked that the Grand Duke Francesco de’ Medici whiled away hours trying to fake precious


36 “L’amico Ciaccheri mi comunicò una ricetta in gergo di quest’artifizio, lasciata dal Vanni, e mi disse averne trasmissa copia a M. Mariette, il quale ciò... ne fece fare delle prove in Parigi,” Della Valle, Lettere: 3: 217.

37 “Non si nega, che la umana sagace industria non abbia trovato l’artificio di colorire i marmi più duri, facendoli penetrare da succhi fattizi, ed appropriati. Ma queste fraudi non sono tanto malagevoli ad essere scoperte,” Michele Lazzari, “Discorso del Signor Michele Lazzari sopra le Macchie naturali di una Pietra, rappresentante un Ritratto,” in Raccolta d’ Opuscoli scientifici e filologici, Tomo Quarantesimottavo a Sua Eccellenza il Sig. Conte Ferdinando Scoti, ed. Angelo Calogera (Venice: Simone Occhi, 1763), 281; this copy in Biblioteca Comunale degli Intronati, Siena, XC. I. 48).
stones and working crystal, and scoffed at this alchemy. But staining colors into marbles was also no novelty in the sciences, the arts or architecture. In France the chemist Charles-Francois De Cisternay Du Fay (1698-1739) had delivered lectures to the Académie des Sciences in 1728 and 1732 on the tinting of stones, which earned public attention when they were later published.

Marble staining was a much favored technique in statuary restorations, where it was necessary to disguise the old from the new. Canova used a yellowing agent to mellow the dazzling whiteness of a newly finished piece and make it more resemble the hue of Parian, and Orfeo Boselli and Filippo Baldinucci had already reported the recipes for such effects current in their own day.

Architects had also been long using the same tricks to disguise modifications to old buildings and “encourage” the coloring in others, since at

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least the time of Constantine. Towards the end of the seventeenth century Portugese noblemen visiting Rome could still pick up tips on dying stone, and it is in this context that one begins to understand why, at the turn of the century (1696), Innocent XII had taken seriously the scurrilous attacks on Andrea Pozzo. It was said that he had cut costs of using *giallo antico* on the altar of St. Ignatius in the Gesù by using white marble stained with egg-yolk. Yet again, such ideas had been current in an earlier age. When De Clavijo visited Hagia Sophia in 1403, he thought the large slabs of porphyry were “artificially stained with a red coloring matter made from powdered porphyry.”

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41 Traces of tinted washes, overall or localised, have been found on antique monuments; Alessandra Melucco Vaccaro, “La policromia nell’architettura e nella plastica antica: Stato della questione,” *Ricerche di Storia dell’arte* 24 (1984): 19-32. When Antonio Valeri added a new portal (1726) to the Palazzo Castellani-Borghesi (begun c.1503/4), Pascoli wrote that “once it has been tinted and received a patina, no-one will be able to tell whether it is modern or antique” (“quando avrà avuto il colore, ed avrà presa la pattina non si conoscerà se sia moderno od antico”): Valentino Martinelli, ed., [Pascoli, Lione] *Vite de’ pittori, scultori ed architetti viventi dai manoscritti 1383 e 1743 della Biblioteca Comunale “Augusta” di Perugia* (Treviso: Libreria Editrice Canova, 1981), 238-39.

42 Dom Luis de Meneses, III Conte da Ericeira, while in Rome (1676-82) learnt of a method of using heat to color marble or stone red, so that the color penetrated, and did not remain on the surface (Lisbon, Arquivo Nacional da Torre do Tombo, MS. Da Livraria 1630, fold. 66r-71r, 79r-80r cited in Angela Delaforce et al., “A Fountain by Gianlorenzo Bernini and Ercole Ferrata in Portugal,” *Burlington Magazine* 140, no. 1149 (1998): 806 (note 11). My thanks to Jennifer Montagu for raising this point.

A memoir (1706) written by Carlo Mauro Bonacina, Jesuit coadjutor and sometime construction overseer at the Gesù, records that “Il di 31. di Luglio del 1696. venne Innocenzo XII. ad’ onorare in nostra Chiesa la Festa del S. Padre. Entratovi appena, rivoltosi al P. Generale, che gli era a fianchi, Ci dispiace molto gli disse, ch’i Padri sieno stati ingannati con essersi lor mandato un brutto marmo bianco per giallo. Intendea del marmo, di cui si son lavorati i Pilastoni; perocché gli era stato dato ad’ intendere, come poi si riseppe, che per ajutarlo, e farlo comparir giallo, e lustro, se gli era dato il colore con tuorli d’uova, e vernice. À tor via questa falsissima apprensione fummo costretti far fare due lastre pulite della med. pietra, e mandarle al Sig Cardinale Carpegna; affinché facesse toccar con mano a N. S. la falsità di quanto gli era stato supposto.” (ARSI, Rom 140, “Ristretto dell’avvenuto nella fabrica della Cappella del nostro santo padre Ignatio Nella Chiesa della Casa Professa della Compagnia di GIESÜ di Roma. Con l’aggiunta d’un Istruzzione per chi volesse fare un opera Simile,” fols.18r/v). My gratitude to Evonne Levey for supplying me with this transcription.

43 “the dome above is supported on four huge pilasters which are encased in slabs of jasper of many colors… and they stand two on the right side [of the nave] and two to the left, and are artificially stained with a red coloring matter made from powdered porphyry” (“E es armado sobre cuatro pilares, muy grandes e gruesos que son cubiertos de losas de jaspe de muchas
Nor was De Caylus the last gasp in this tradition. Another, unknown, painter active after De Caylus’s death seems to have produced paintings using this technique or perhaps another, as Mariette could not understand it (Appendix 11a.12). Moreover, the quest to simulate marble and its veining had not been abandoned in Tuscany. Near Chianciano, from 1757 onwards, the architect and erudito Leonardo de Vegni (1731-1801) decided to take advantage of the fact that the local spring water was so rich in calcium carbonate that it left heavy deposits of sulphur and travertine. He began channeling this chalky fluid into moulds to cast busts and reliefs, and by varying the direction and flow of the jet de Vegni could produce deposits with a very marked veining. When he colored them, either by introducing minerals and vegetation into the water before hardening or just after casting, or by using the “penetration technique” he had learned from the writings of Vanni and all the rest, the result was “alabasters” and stupendous “verdi... turchini... pavonazzi.”

By effectively fabricating “living rock” from “living water,” De Vegni was heir to a very ancient tradition, but it cannot be coincidence that the solitary

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example of these natural castings that has come down to us is a bust of the Saviour (1784) based on a famous and apocryphal gem, the so-called “lost emerald” imprinted with the portrait of Christ (fig. 12.13).\textsuperscript{45}

Appendix 12a: List of Recorded Paintings “in stone”

1) Between 1627 and 1638
Niccolò Tornioli, Sudarium (lost, formerly collection of Cardinal Maurizio di Savoia).

2) 1647-1649
Niccolò Tornioli, Baptism of Jesus, the Confirmation, Anointment with Oil and the Penitence, and mosaic frieze in cupola, Cappella del Sacramento, St. Peter’s, Rome (destroyed).

3) Before 1656
Niccolò Tornioli? Cherub head, rhomboid (lost, formerly collection of Paolo II Giordano Orsini).

4) 1656
Michelangelo Vanni, Monument to Francesco Vanni, S. Giorgio, Siena.

5) 1657
Michelangelo Vanni, painting, (lost, formerly collection of Alexander VII).

6) 1662
Michelangelo Vanni, three paintings, (lost, formerly collection of Cardinal Flavio Chigi).

46 “His Excellency, Paolo Giordano Orsini, Duke of Bracciano had on display another, similar image, on a many-sided stone, on whose every facet small angel heads arose that were differed in shape, because on one side they were straight and on another oblique, depending on the system of oblique cutting. For all these things are arranged on a rhomb.” (“Alteram similem imaginem ostendit Excellentissimus Paulus Jordanus Ursinus, Dux Bracciensis, in lapide multilatero, in quo quot latera, tot Angelica capitula eminebant, differentis tamen figureae, ob nunc rectam, modo retortam pro obliquea sectionis ratione factam. Sed hisce propositis iam ad rhombum;” Athanasius Kircher, Mundus subterraneus, in XII. libros digestus, quo divinum subterrareus mundi opificium… universae denique naturae majestas et divitiae summa rerum varietate exponuntur, etc. (Amsterrdam: apud Joannem Janssonium a Waesberge & viduam Elizaei Weyerstraet, 1665):Tomus II, Liber VIII, 46). Unfortunately, this artifact does not appear in the posthumous inventory of the Duke’s possessions made in May 1656 (Gisela Rubsamen, The Orsini Inventories (Malibu, CA: J. Paul Getty Museum, 1980), vol. 1:doc. II, 6-16).

47 Michelangelo referred to himself as “novae huius in petra pingendi artis inventor.” The entire inscription is as follows: (at top) IN SPE RESURRECT. / FRANCIS. VANNIO EQ. IESU CHR. LUSIT. RE- / LIGIOSISSIMO PICTOR. AETATIS SUAE NULLI SECUNDO / MICHAEL ANGELUS EISUD. RELIGION. EQUES NOVAE HUIUS IN PETRA PINGEN- / DI ARTIS INVENTOR, & RAPHAEL EQUES AURATUS FILII PARENTI OPTIMO M. P. ANNO MDCLVI; (at bottom) CATHERINAE PICCOLOMINEAE INTEGERRIMAE FAEMINAE / MICHAEL ANG. VANNIUS TANTA DEIECTUS CONIUGE / AETERNAE IN SPEM VITAE PIIS PARENTAT LACRIMIS; (on the border, clockwise) BONA BONIS STATUTUM EST / OMNIBUS HOMINIBUS / SEMEL MORI POST HOC / AUTEM IUDICium MALIS MALA.

Chapter 12: Painting in Stone

7) 1662/64
Michelangelo Vanni, *God consigns the Laws to Moses*, formerly Sala Regia, Quirinal Palace, Rome (removed 1672).

8) undated

9) 1759


50 On 17th August 1662 the pope notes “a 21 hore vediamo i disegni del Vanni per la pietra di Sala Regia” (Krautheimer and Jones, “The Diary of Alexander VII, Notes on Art, Artists and Buildings,” 217, n. 602). On 12th August 1664, a payment was made of 30:80 scudi “a Michel Ang. Vanni Pittore p resto d’un conto di lavori fatti di pitture nel Palazzo di Mte Cavallo” (ASR, Camerale I, Depositeria generale, reg. 1935, fol. 87r). A Sienese memoir reports “in sala regia di M. Cavallo la lapide di Mosè, opera da lui inventata e a’ nostri secoli mai da nessun operata, e per tal effetto le furon fatto dare da S.S. per le spese da fare nelle pietre, ne disegni e cose necessarie a tal opera cento scudi” (Archivio di Stato di Siena, Fondo Tolomei 31, loose sheets; cited in Laura Bonelli, “Nuovi documenti sulla vita e le opere di Francesco Vanni” (Università degli Studi di Siena, 1994/95), 48; my thanks to the author for allowing me to consult her thesis). Carlo Cartari writes “…a Moisè, come con bel compimento d’istoria il pittore eseguì e la tavola nova così dipinta fu poi collocata nel pavimento della Sala Regia nel Quirinale …” In tempo di Clemente X in occasione di cappella pontificia fu veduto con approvazione universale che quella pietra dipinta era stata rimossa e nello stesso sito era stata, d’ordine di N. S., collocato un marmo di color mischio della medesima grandezza”; “Fu con applauso approvato un atto pio e religioso che d’ordine di Clemente X eseguì. Era fin dal tempo di papa Alessandro VII capitato in Roma un artefice che con meravigliosa e nuova invenzione con certe misure dipingeva a chiaro scuro ne’ marmi e talmente in essi quella materia penetrava, che in nessun modo la pittura cancellare si poteva. Piaque a quel curioso pontefice il pensiero e gli ordinò in una spatiosa tavola di candido marmo rappresentasse il Padre Eterno che consegna le leggi”. The passages are transcribed by Marcello del Piazzo, in Franco Borsi, *Il Palazzo del Quirinale* (Rome: Banca Nazionale dell’Agricoltura, 1973):262. He gives the archival source as ASR, Fondo Cartari Febei, busta 191, “Breve ristretto delle azioni di papa Clemente X,” sub data 1672, 1673. However, no such document can now be found in this busta.

Jennifer Montagu has kindly notified me of the following documents: Archivio Segreto Vaticano, *Sacri Palazzi Apostolici*, Computisteria 3026, fol. 286: “S.r Michelangelo Vanni… a buon conto de marmi che fa venire da Massa di Carrara d’ord.ne di S.S.ta et dette devono servire per sel ?] della Sala Regia di Monte Cavallo et per rendere conto 25 Maggio 1662 – s.100” (in margin: “Vanni pittores”); ASV, SPA, 3027, fol. 41, “Michelangelo Vanni Pittore… per resto di s.130:80, che tanto import. le sude.e spese fatte da lui alle lapide seng.te ?] nella Sala Reggia di N.S. …Monte Cavallo [reference to “s.100 a buon conto” on 25 May 1662] 7 Giugno 1664 – s.30:80.”


52 De Caylus does not name the author of the panels he exhibited to the Académie but they were exhibited at the Salon as by Joseph-Marie Vien: “Trois dessins incorporés dans le marbre, de la
10) 1750s/60s?
Raimondo di Sangro, Principe di Sansevero, 96 different marble types, tables, etc. (lost, formerly collection of the Prince, and the King of Naples).

11) 1760s onwards
Leonardo de Vegni, Christ (1784; Casale di S. Filippo, Chianciano Terme) and other tinted ‘tartari’ castings (lost).

12) c.1767
Unknown French (?) artist, “a small panel painted en camaïeu on marble and encrusted using a procedure that nobody understood” (lost, formerly collection of “M. de La Rochefoucauld”).

Appendix 12b: Recipes for Tinting Stone

1) Recipe of Michelangelo Vanni (?) for Tinting Stone (partially in cipher):54

Per far tinta che passi la pietra.

Recipe DICS: e BODNSPS e farla ASCOSRP alla SGGIBRFP DA ESRFRP della IPTTMNS con quella dipinge la pietra avendola prima bennetta: premala con polvere di seppia con penna à spennacchio, ò mollica di pane. Rimedio perché non spanda nella pietra, ed ombreggiato alle buone mette li chiari metteci della biacca a oglio, che non spanderà, e poi finita l’opera metti per tre di all’aria, poi pomicia, e leva la biacca. Per intagliare la pietra = farai un suolo alla pietra che tu vuoi intagliare, di cera al foco grosso quanto un giulio, intagli la quello che vuoi in detta pietra, poi mettete sopra dell’acqua forte senza argento e sarà fatto. Quando vuoi lavorare di chiaro scuro avverti di non toccar mai la pietra.

Recipe dell’acqua regia, e con penna, o pennello disegna, e ombreggia. Meglio è quella di polvaccio ....... marmo greco saligno ....... chiaro scuro, in otto giorni passa la pietra d’un buon dito; e se vuoi far pavonazzo piglia l’acqua regia farra d’oro, e questa me ......... avendo fatto il chiaro scuro con l’argento caccia più scuro, come pavonazzo, e questa acqua non spande, come quella d’argento

To make dye which penetrates stone.

Take DICS: and BODNSPS and make it ASCOSRP to the SGGIBRFP DA ESRFRP of the IPTTMNS; with that paint the stone having first thoroughly cleaned it; press it with cuttlefish powder with the feathery end of a quill, or crustless bread. The remedy that it does not spread in the stone, and masked where you wish to place the lights put there lead-white in oil, which will not spread, and then when the work is finished put it out to air for three days, then sand with pumice, and remove the white lead. To engrave the stone = you will make a coating on the stone that you want to engrave, out of candlewax as thick as a giulio; engrave what you want in the said stone; then put nitric acid without silver on top of it and it will be done. When you want to work in chiaroscuro be careful never to touch the stone.

Take some turpentine, and with a quill, or brush draw and shade. Better is that of dust ......... Greek marmo saligno ......... chiaro scuro, in eight days penetrates the stone to a good finger’s depth; and if you wish to make “pavonazzo” take the turpentine [farra?] of gold, and this to me ......... having made the chiaroscuro, with the silver make it [?] darker, purplish, and this water does not spread, like that with silver

2) Athanasius Kircher and Albrecht Gunter (1665)

EXPERIMENTUM
Novum & rarum

A new and singular
EXPERIMENT

54 Biblioteca Comunale di Siena, ms. L. V. 9, f. 49v; transcribed on the verso of a document of 1593 awarding the commission of paintings in the Cappella di Santa Caterina, S. Domenico, Siena to Francesco Vanni (previously published in Mazzoni, “Appunti,” 259). Gloss: line 1, “passare” has the sense of “penetrate” in older Italian, and contemporary colloquial Italian; line 4, “bennetta” = “ben netta;”

Et quoniam res dignissima est, & iam experimentum in Museo nostro fecimus, hic *totius arcani rationem* curioso Lectori lubensque, cum multum ad nostri instituti rationes conferendas conferat, communicabo.

There is also here in Rome, still to this very day, a painter, the *Cavaliere Vanni*, who has traded in this art to great profit, and cannot be persuaded to impart his art to anyone. When I heard this I gave serious thought to the matter, what could be made, and which harmonious *colors* could be prepared by this. Consequently, with the advice of the famous German chemist, *Albrecht Gunter* of Saxony, we carried out much in collaboration and experimenting on things, not just to root out the secret, but also to enrich that thing with a multiple variety of colors, which the aforesaid *Cavaliere* had not achieved. And because it is a very worthy thing, and we conducted the experiment in our Museum only quite recently, and since it goes far in confirming the reasoning of our investigation, I will, gladly and willingly, communicate here the *system of the whole secret* to the curious Reader.
Chapter 12: Painting in Stone


This, then, is how the colors are prepared. I take two ounces of nitric acid; likewise two ounces of nitric acid or turpentine; one ounce of ammonium chloride; two drachmæ of spirit of the best wine; enough gold as can be bought for nine Giulii; two drachmæ of purified silver. Having prepared these, now place the calcinated silver in a saucer, and it to evaporate having poured two drachmæ of nitric acid over it; you will now have a liquid which will give you a cerulean color and later black: next place the calcinated gold in a saucer, and having poured the nitric acid over it, until it evaporates, I separate it, next pouring ammonium chloride together with the spirit of wine, I leave it until the spirit has evaporated, and you will have a liquid of gold color, which will give you various different colors. Moreover, by using this technique you will be able to extract different colored dyes from the remaining minerals. Once you have carried out these things, you may paint with the two liquids any sort of image you wish on shining marble of the smoother consistency, and [you may paint] a figure by repeatedly adding more of the liquids over several days: with time you will discover that the picture has penetrated the fabric of the entire stone, so much so that however many slices it is sawn into, it will always display the same figure to you on the other side. This phenomenon is so singular and so unusual, that it also causes the greatest admiration in observers.

3) De Caylus and Majault’s Recipe for Tinting Stones (1759)

De la peinture sur le marbre

Depuis le renouvellement des arts, il me paroit que l’on a toujours connu et pratiqué la teinture du marbre par le moyen du feu, c’est-à-dire, que l’on a su lui donner des couleurs dont, il est vrai, on n’a jamais été maître, et que le marbre a toujours pris, pour ainsi dire, à sa soif et à sa volonté; cette opération est d’autant plus facile, que le marbre est infiniment poreux. Cette première opération fait sentir pourquoi j’ai donné le nom de teinture à cette manœuvre.

Je n’enterai point dans le détail des différentes couleurs qu’on emploie pour teindre le marbre. Plusieurs particuliers de France et d’Italie possèdent des recettes de vert, de bleu, de rouge, etc.; quelques auteurs modernes en ont même imprimées. Le savant Boyle, dans son traité de Porositate corporum, dit que de son temps on avait trouvé une liqueur rouge qui pénétrait le marbre et lui communiquait sa couleur; et comme il n’en dit pas davantage, et qu’il n’a pour objet que la porosité des corps, il est à présumer qu’il ne parle que du sang de dragon, qui donne au marbre une teinte de rouge-foncé, et qui pénètre ce genre de pierre avec plus de facilité et plus de rapidité que toutes les autres matières. Enfin je crois pouvoir dire que toutes les opérations de ce genre qui ont été citées ou rapportées, n’ont été qu’une incorporation vague; et que l’on ne voit point avec évidence que personne ait poussé cette pratique au point de former un trait qui ne soit ni dérangé par le feu. Il est aisé de sentir combien cet inconvénient s’oppose à l’exécution de tous les genres de dessins; et, si, l’on a trouvé le moyen d’incorporer la couleur dans le marbre à sa volonté, découverte qui cependant me paroit très-facile à imaginer, il est certain qu’on en a fait un secret, et que quelque moderne peut avoir connu cette pratique, je suis persuadé que les anciens qui ont poussé si loin toutes les connoissances, n’ont connu que l’incorporation vague de la couleur, et la découverte qu’ils en ont faite ne remonte pas même à une antiquité fort reculée.

Pline, après avoir parlé de l’incrustation des marbres, dit simplement, lib. XXXVII, C. I. 
.... Coepimus et lapidem pingere, hoc Claudii principatu inventum; Neronis vero, maculas, qua non essent, crustis inserendo, unitatem variare, ut ovatus esset Numidicus, ut purpura distinguetur Synnadicus. 
.... Nous avons commencé à peindre la pierre; cette invention est du règne de Claude: sous celui de Néron, nous avons incrusté des taches étrangères dans les marbres d’une seule couleur; et comme nous avons introduit des formes ovales dans le marbre de Numidie, nous avons distingué celui de Synnade par la couleur de pourpre.

Pline ne parle de cette manoeuvre dans aucun autre endroit de son ouvrage. Il ne donne pas la moindre idée de précision ni de particularité de trait. On ne voit au contraire dans le passage précédent que des couleurs vaguement incorporées, ou des parties teintes avant que d’être incrustées; ce qui n’aurait sans doute point d’autre objet le moyen de corriger l’extension de la couleur, et de rendre les morceaux d’une couleur précise à leur extrémité. Je suis même étonné que Plinne n’ait point fait mention de ce moyen pour placer un incarnat léger sur les joues des figures de femme. Car le rouge qui colore autrefois: c’est une teinte incorporée par le moyen du feu. Je reviens à l’examen de Pline. L’étendue de ses connoissances et principalement son exactitude, permettent d’assurer que les Grecs n’ont pas même connu le moyen de donner la couleur vague aux marbres, puisqu’il fixe son invention au temps de l’empereur Claude. La même raison me persuade que la couleur placée sur le marbre avec précision a été absolument ignorée de Pline. En effet, ce grand auteur ne parle de cette couleur qu’en général, et dans le seul objet de critiquer le luxe des Romains; son éloquence, qui s’est échauffée sur des sujets moins importans, n’aurait pas négligé le détail d’une pratique qui pouvait éclairer la postérité par un moyen si facile, et qui concourait à l’illustration de la vertu et des arts, en faveur desquels il paroit n’avoir rien oublié. Il est même certain que Zosime est le seul des anciens, à notre égard, qui ait parlé de l’incorporation de la couleur dans le marbre. Voici ses paroles:

On polissoit les marbres pour les rendre plus propres à recevoir la couleur & à la boire, ensuite on y appliquoit des couleurs. 

J’avoue que ce poliment m’étonne; car le marbre éclaté n’est que plus susceptible de recevoir les couleurs quand il est échauffé. Ensuite Zosime ajoute: L’opération se terminoit par mettre sur la couleur un mordant qui retenoit la peinture et la rendoit tellement adhérente au marbre, que tous deux n’avoient plus qu’un même corps.
Zosime nous apprend, en premier lieu, que cette manoeuvre inventée sous les premiers empereurs, n’avoit point été interrompue dans le Bas-Empire, et qu au contraire elle s’étoit perfectionnée par les nouveaux moyens que cet auteur nous indique. Il est constant qu’il ne parle pas formellement du trait; mais ce mordant qu’il désigne rendoit l’opération du dessin possible et fort aisée. Il faut en conclure que cet auteur n’admet point le feu dans son incorporation, donne l’idée d’un secret qui non–seulement n’est plus connu, mais qui ne ressemble en rien aux expériences dont je dois vous donner le détail. D’un autre coté, je ne sais quel degré de confiance mérite cet auteur du coté des arts; du moins il ne peut être aussi suspect à leur égard que sur ce qui regarde Constantin.

Je dois à présent prouver, ou plutôt rapporter les raisons qui m’ont fait avancer que la précision du trait par l’incorporation n’étoit point connue des anciens.

Si les ouvrages d’Herculanum sont incorporés, il ne faut point oublier que leur nombre est réduit à cinq morceaux d’une étendue médiocre; et si l’on ne vent pas se prêter aux idées que donne leur petit nombre, c’est-à-dire, les regarder comme les essais d’un secret particulier dont on n’a point fait une estime suffisante au gré de l’inventeur, et qui, n’ayant point été répétés, [p. 332] sont demeurés dans l’oubli, il faut au moins convenir que cette manière de dessiner n’étoit ni généralement répandue dans l’antiquité; car il seroit non–seulement singulier, mais en quelque façon impossible que le temps, qui nous a conservé dans leur entier plusieurs corps de la plus grande fragilité, n’eût respecté aucune espèce de fragment de peinture devenue le marbre même. Mais je suis persuadé, par des raisons que je vous laisserai point ignorer, que les peintures d’Herculanum n’ont d’autre merité que la beauté de leur trait, la répétition des anciens et premiers Monochromata dont parle Pline, et la singularité d’une conservation qu’on ne devoir pas espérer d’une couleur mise simplement à plat sur un marbre comme on auroit fait sur tout autre corps solide, ce qui même n’a jamais été difficile.

Un très-grand nombre de peintres modernes ont peint à l’huile sur le marbre et sur des pierres fines; ils ont profité des accidents de la nature souvent avec beaucoup d’intelligence; mais ces pratiques sont trop communes et trop éloignées de celles dont il s’agit pour s’en occuper plus long–temps.

Les marbres d’Herculanum m’engagent encore à vous parler de deux ouvrages qui autorisèrent mon indécision sur la manière dont ils sont travaillés.

Le premier est un mémoire de l’académie de Cortone, donné par M. Calzabigi, dans lequel il ne parle que du seul morceau des deux joueuses d’osselets, quoique ce titre annonce les deux qu’on avoit déjà trouvés dans le temps qu’il étoit à Naples.

Je n’examinerai point ce mémoire en détail. Je dirai seulement que l’auteur, qui ne paroit point avoir lu [p. 333] Zosime, suppose, comme lui, un mordant; mais soit que l’ouvrage soit exécuté par ce moyen ou qu’il l’ait été par celui du feu, M. Calzabigi se contredit en disant que les couleurs de ces dessins sont emportées ou évanouies, dans quelques endroits, ceux mêmes ou, selon lui, elles devoient être le plus ressenties [ressenties?].

Le second ouvrage est le beau livre des peintures d’Herculanum que la magnificence du roi des Deux–Siciles vient de répandre dans l’Europe. L’examen des explications faites par messieurs de l’académie de Naples ne me donne point assez de détails et de moyens pour décider sur leur fabrique, je vois seulement qu’il y a plusieurs traits d’emportés. Ce rapport de faits dans des auteurs qui diffèrent si considérablement, prouve que la couleur n’est point fixée par aucun mordant, et qu’elle est encore moins incorporée par le feu; car il est constant, du moins selon cette dernière pratique, qu’aucun trait ne pourroit avoir été détruit que par la diminution de la surface du marbre, et qu’il est nécessaire de recourir à l’art avec le dessein formé d’altérer inégalement les couleurs avec la pierre–ponce ou d’autres moyens égaux pour produire l’imperfection dont les deux auteurs conviennent; comme on ne peut admettre cette cause de dégradation, elle sert à convaincre que ce genre de dessin n’est point incorporé par le feu, et devient fort suspect en supposant le mordant.

Pour éclairer les doutes qui me paroissent fondés avec tant de solidité, et savoir si je vous prése une équivalent des peintures d’Herculanum, ou bien un nouveau moyen dans une ancienne pratique, M. le duc de Noja a bien voulu emporter un morceau pareil à [fig. 334] ceux que j’ai l’honneur de vous présenter, c’est–à–dire, une copie de la planche III°. des peintures d’Herculanum. Il m’a promis non–seulement de le comparer, mais d’examiner avec soin les dessins antiques, et mon premier soin sera de vous rendre compte de l’examen sévère qu’il m’a promis. Son goût pour l’antiquité, la sincérité de mes prières me font espérer un éclaircissement sans appel.
Je ne puis traiter la matière présente sans vous dire un mot sur un mémoire lu par M. Dufay à l'académie des sciences; on peut assurer qu'il y a bien expliqué la nature de marbre; on y trouve le détail de toutes les expériences qu'il a faites sur l'incorporation de la couleur, et toujours par le moyen du feu; cependant il n'a pu parvenir à se rendre maître de la couleur. Le hasard m'a fait parvenir à retrouver chez Dropsi, marbrier de Paris, les essais dont il avait accompagné son mémoire, dans les termes de sa lecture. Ils consistent en deux tranches de marbre blanc, taillées pour servir de tables, et sur lesquelles on a peint des taches pour imiter une brèche, mais qu'on n'a jamais vues dans la nature; elle représente alternativement des couleurs d'un gris tirant sur le fer ou l'ardoise, et d'un jaune foncé et sourd; les traits qui séparent les deux couleurs sont d'un rouge brun. Ces essais ne m'ont été d'aucun secours; ils ont même beaucoup moins de mérite et de variété que les ouvrages d'un marbrier que loge sur le rempart, et qui vent de répandre des tables. Il emploie plusieurs couleurs qui voudroient être agréables, mais qui sont fausses; leur plus grand inconvénient est d'excéder les bornes qu'on a voulu leur prescrire et que le dessin peut exiger; les traits qui veulent représenter des hommes, des animaux sont ce qu'on appelle bakocheux et n'ont aucune précision; aussi l'ouvrage n'est, à proprement parler, qu'une apparence de peinture. Il est temps de passer au procédé, ou pour mieux dire, au détail de nos expériences; car j'ai toujours travaillée avec M. Majault, médecin de la faculté, dont je vous ai déjà parlé avec beaucoup de reconnaissance au sujet de la peinture à l'encaustique. La même opération réussit sur toutes les pierres dont le grain est égal.

Détail des expériences ou procédés.

(C'est M. Majault qui va parler.)

L'art de teindre le marbre blanc n'est autre chose, comme l'a fort bien remarqué M. Dufay, dans un mémoire lu à l'académie des sciences, en 1728, que celui d'introduire dans les pores du marbre des fluides très-chargés de parties colorantes analogues à leur dissolvant. Mais cet art, tout simple qu'il paroît, devient hérissé de difficultés lorsqu'il est question de le mettre en pratique. Telle couleur, par exemple, qui pénètre et colore très-bien le marbre, s'étend si prodigieusement et si inégalement, qu'il n'est pas possible de rien faire de décidé; une autre qui se prêteroit au pinceau de l'artiste, ne pénètre pas le marbre, ou ne colore que très-foiblement; celle-ci est d'une couleur fausse pour le ton; celle-là, quoique vraie, ne peut se soutenir long-temps sans perdre de son éclat; enfin une autre change de couleur totalement, ou s'évanouit. Mais la difficulté la plus essentielle et même insurmountable par les procédés déjà connus, est celle d'exécuter des traits purs. Tel étoit l'art de teindre le marbre (décrit par le père Kircker [sic], et depuis dans les Transactions philosophiques, année 1701, et par M. Dufay, dans le mémoire déjà cité) lorsque nous avons entrepris d'exécuter sur le marbre des dessins imitant le crayon rouge et le crayon tirant sur le noir dont les traits fussent décidés, qui pénétrassent le marbre et qui fussent enfin semblables à ceux que l'on disoit avoir été trouvés à Herculanum, et que M. Calzabigi prétend n'avoir résisté aux siècles, que parce que les marbres sont pénétrés par les couleurs et qu'elles ont pour ainsi dire fait corps avec lui. La chose bien examinée, il étoit impossible d'y parvenir par les procédés du père Kircker et de M. Dufay; car, quoique ce dernier paroisse avoir beaucoup plus étudié cette matière par la voie des expériences que ceux qui avoient écrit avant lui, les différens moyens de teindre le marbre qu'il nous a trasmis par son mémoire, n'étoient propres qu'à faire des choses indécises. Deux mots du parallèle des opérations qui peuvent être relatives aux moyens dont je me suis servi pour exécuter les dessins qu'on me présente, prouveron ce qui vent d'être avancé. On n'entra pas dans le détail de toutes les couleurs propres à colorer le marbre; on ne parlera que du rouge imitant le crayon de sanguine, et du brun tirant sur le noir, ces deux couleurs étant les seules dont il sembloit que les anciens nous avoient laissé des vestiges.

De la couleur rouge.
La matière dont on se sert pour faire le rouge qui approche le plus du ton du crayon, est un suc résineux épaisi tiré d’arbres, dont M. Geoffroy nomme quatre espèces dans son traité des matières médicinales; cette sorte de résine s’appelle sang de dragon. M. Dufay veut qu’on la laisse dissoudre dans l’esprit de vin, en mettant, selon lui, le seul dissolvant par le moyen duquel on puisse introduire facilement cette teinture résineuse dans le marbre que l’on fait chauffer pour la recevoir.

On conçoit combien il est difficile par ce procédé de peindre des traits décidés; l’un, parce qu’il faut que le marbre soit très-chaud pour que couleur s’y introduise; ce qui formerait une difficulté très-considérable pour l’exécution des morceaux d’une certaine étendue. Chauffer et réchauffer sont des manœuvres qui rebuteront l’artiste.

2. L’esprit de vin s’évaporant très-facilement, il ne serait pas possible que le pinceau qui en serait chargé le fût long-temps et le façonnant irrégulièrement avec laquelle il fournirait au désir du peintre, ou rendroit la manœuvre impossible, ou ne feroit qu’un ouvrage qui n’aurait aucun accord.

Quand les difficultés dont nous venons de parler pourroient être surmontées, la façon irrégulière dont cette couleur ainsi préparée s’étend à droite et à gauche, rendroit cette manière de peindre totalement impraticable.

Bien convaincu de ce qui vient d’être dit par des expériences répétées, il eut été possible d’employer le sang de dragon seul, parce qu’il se fond sur le marbre chaud et le pénètre; mais le degré de chaleur qu’il faut employer pour le mettre en fusion peut altérer le marbre, et expose ce suc résineux à noircir plus ou moins, selon le degré de chaleur qu’on lui a fait éprouver.

Les huiles et la cire, très-analogues d’ailleurs avec le sang de dragon, ne pouvoient être employées, parce que cette couleur alliée à ces sortes de corps gras, s’étend trop et ne couvre pas assez.

Il fallait cependant trouver un corps qui se mêlât aux résines et qui, en facilitant la fusion du sang de dragon, me l’exposât point à changer de couleur par la nécessité d’un feu très-fort, qui permit de l’appliquer à froid et fût coulante, comme le sont les couleurs dont les peintres font communément usage; je trouvai tous ces avantages dans le jaune d’oeuf, qui a la propriété de se mêler aux huiles et à l’eau. Je fis donc broyer du sang de dragon avec de l’eau; je le fis sécher; alors on le prépara sur une palette avec du jaune d’oeuf mêlé avec quatre parties d’eau, et l’on peignit très-facilement avec cette couleur sur le marbre froid; lorsque la couleur fut séchée, on exposa le marbre à une chaleur au-dessus de celle que la main peut supporter; le sang de dragon se fondit à la faveur de l’huile que le jaune d’oeuf contient, sans s’étendre, et la couleur pénétra le marbre, environ de la largeur du trait. C’est de cette manière qu’est fait le dessin en rouge qu’on vous présente.

De la couleur brune.

De toutes les couleurs, celle-ci est la plus difficile à obtenir; telle qui paroîtroit noire, n’est rien moins lorsqu’elle est entrée dans le marbre. M. Dufay a senti toutes les difficultés qu’il y avait d’obtenir du noir; mais peut-être s’est-il trop avancé, en regardant la chose comme impossible. S’il est un moyen d’y parvenir, nous croyons que ce sera par quelques préparations de plomb ou de fer. Le peu de temps que nous avons eu pour faire toutes les tentatives nécessaires à ce sujet, ne nous a pas permis de faire les recherches que nous aurions désirées. En général il faut observer dans cette couleur comme dans les autres, qu’elle ne devienne pas trop liquide par la fusion, de peur qu’elle ne s’étende au-delà des bornes que l’artiste veut lui prescrire. Voici comment on a préparé celle qui, si elle n’approche point assez de la couleur noire, donne la facilité du moins de faire des traits forts décidés.

On met dans une cuiller de fer,
Asphalte, deux parties;
Huile d’olive et cire blanche, de chacune une partie;
Litarge en poudre, une partie;
On met le tout dans une cuiller de fer: on expose le tout à un feu, assez fort pour que la litarge brûle et noirisse. Les autres ingrédients brûleront aussi, et acquerront la couleur noire. Une demi-heure du même feu suffira pour cuire cette matière. Quand elle est préparée, on la fait dissoudre dans une quantité suffisante de térébenthine pour la rendre propre à peindre.

Lorsque la couleur est appliquée, on expose le marbre à une chaleur suffisante pour que l’eau bouillonne légèrement dessus; lorsqu’il est refroidi, on passe la pierre-ponce pour enlever ce qui n’est point entré dans le marbre. On pratique la même chose pour la couleur rouge.

Vous êtes parfaitement en état de prévoir les avantages que l’on peut retirer de ce petit moyen d’employer la couleur. Cependant je crois devoir vous en faire l’énumération. Je commencerai par un éloge qui lui est particulier. Il répare un inconvénient de la nature des arts; plus leurs opérations sont courtes et faciles, moins ils ont pour l’ordinaire de mérite et du dureur. Cette manière de dessiner produit absolument le contraire; elle n’exige, comme vous l’avez vu, en surplus de la pratique ordinaire, que le temps très-court de faire chauffer le marbre pour faire incorporer la couleur. Alors tout ce qu’on a dessiné, composition, paysage, ornemens, inscription, n’est plus soumis qu’aux seuls accidents du marbre; la couleur l’égale absolument en dureur ainsi qu’en solidité; l’un et l’autre n’ont plus qu’un sort commun. Indépendamment du plaisir de conserver les pensées des grands maîtres dans des panneaux de marbre, on peut les remplir par des compositions originales d’histoire ou de paysages encadrés dans des ornemens généraux.

Avec une médiocre dépense, on peut feindre ou plutôt imiter la sculpture, ou du moins diminuer le prix et le travail de celle qui traite de l’ornement; car en donnant, avec cette couleur, des traits heurtés et plus [p. 341] ou moins resserrés à la plume comme avec le pinceau dans les feuillages, dans les rinceaux, etc., ce moyen peut suppléer efficacement et très-promptement à un très-grand nombre de coups de ciseau.

Ce que je viens de dire sous entend la facilité, la promptitude et la moindre dépense avec lesquelles on peut exécuter toutes les inscriptions. Je sais qu’elles n’ont besoin que d’elles-mêmes pour frapper, et que les ornemens leur sont constamment étrangers. Je m’excuse d’avoir placé un ornement courant autour de la vôtre; elle est assez belle pour n’avoir besoin d’aucun secours; mais je n’ai pas voulu multiplier les marbres, et mon dessein a été de vous démontrer l’effet des ornemens délicats exécutés de cette manière.

J’ai fait copier ces deux figures d’après les peintures d’Herculanum; elles m’ont épargné la peine de faire d’autres choix; elles sont rendues de la grandeur des planches, et j’ai eu mes raisons pour choisir cette grandeur. Plus les dessins auraient été grands, moins leur exécution aurait convaincu de de [sic] la possibilité de faire des traits fins, déliés et renflés par le moyen de cette pratique.

Quelle que soit cette bagatelle, je la dois aux anciens. Sans le dou que le public leur en a fait, sans la prévention favorable qu’ils méritent, et que je leur accorde peut-être plus qu’un autre, je ne l’aurais jamais recherchée. A ces titres, et plus encore à ceux de votre amitié, je vous en fais l’hommage.

Au mémoire du comte de Caylus on peut ajouter cette notice, extraite de l’encyclopédie. “On est aisément parvenu à donner diverses couleurs au marbre. Les couleurs tirées des végétaux, [p. 342] comme le safran, le suc de tourne-sol, le bois de Brésil, la cochenille, le sang de dragon, teignent le marbre et le pénétrant assez profondément, pourvu qu’on joigne à ces matières colorantes au dissolvant convenable, tels que l’esprit de vin, ou de l’urine mêlée de chaux vive et de soude, ou des huiles.

Mais en fera prendre au marbre des couleurs plus fortes, plus durables, et qui pénétreront plus avant en se servant de dissolutions métalliques, faites dans les acides, tels que l’eau-forte, l’esprit de sel,” etc.

Winkelmann parle aussi, dans son Histoire de l’art de l’antiquité, de statues de marbre peintes. Il cite à ce sujet, la Diane trouvée à Herculanum en 1750. (Voyez tome I. page 27.)
Fig. 1.1 *Daedalus and Pasiphae*, Tablinum of the House of the Antique Hunt (VII, 4, 48); Archaeological Museum, Naples, inv. 8979
Fig. 1.2 Temple A, Largo Argentina, Rome (mid-first century BC to c. 80 AD)
Fig. 1.3 Temple of Hercules Victor Olivarius (?), Rome (100/90 BC)
Fig. 1.4 Athena Parthenopos, reconstruction, Nashville, Tennesse
Fig. 1.5 Fragments of chryselephantine cult statue, Museo Nazionale, Palazzo Massimo, Rome
Fig. 1.6 *Hera and Zeus*, metope, Heraion, Selinunte, Sicily (460-450 BC)
Fig. 1.7 *Fortuna Huiusce Diei*, attributed to Scopas Minor (c. 100-95 BC)
Fig. 17b Temple of Fortuna Huiusce Diei, Largo Argentina, Rome (c. 101 BC)
Fig. 1.8 Minerva, Museo Nazionale, Rome (early 1st Century AD?)
Fig. 1.9 Jean-Louis Gérôme, *Pygmalion*
Figs. 1.10-11 *Via Labicana Augustus* (after 14 AD?)
Fig. 1.12 Getty Aphrodite (c. 425-400 BC)
Fig. 1.13 Fra Angelico, *Transfiguration*, S. Marco, Florence
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Fig. 1.14 *Prima Porta Augustus*

Fig. 1.15 *Prima Porta Augustus* with polychromy restored
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Fig. 1.17 Detail of *Annunciation*, triumphal arch mosaic, S. Maria Maggiore (432-440 AD)
Figs. 1.18-19 Foundation of Rome, frieze relief, Basilica Aemilia, Rome
Fig. 1.20 Anathyrosis, “Wailing Wall,” Jerusalem
Fig. 1.21 Faux anathyrosis, Temple of Venus Genetrix, Rome (Trajanic)
Fig. 1.22 Cella wall, Temple of Mars Ultor, Forum of Augustus, Rome
Figs. 1.23 anathyrosis, Temple of Hercules Victor Olivarius (100/90 BC)
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Fig. 1.26 Portico, Hierapolis (Pammukale), Turkey
Fig. 1.27 Porta Maggiore, Rome (52 AD)
Fig. 1.28 Pedestrian passage, Porta Maggiore
Figs. 1.29-30 Fountain-head, Museo Archeologico Nazionale (Hadrianic)
Figs. 1.31 Flayed Marsyas, Musei Capitolini, Rome
Fig. 1.32 Genuflecting Attis (1st Century)
Fig. 1.33 Roughed-out block, Docimeion, Turkey
Fig. 1.28 Patrician Lady, Musei Capitolini, Rome
Fig. 1.35 *Europa and the Bull*, Archaeological Museum, Aphrodisias
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Fig. 1.38 Faux-marble revetment, Capitolium, Brescia (89/75 BC)
Fig. 1.39 Phrygian *Atlantid*, Basilica Aemilia (c. 14 BC)
Fig. 1.40 Parthian Captives (? Augustan?)
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Fig. 2.3 Detail, Vestibule, House of the Samnites
Fig. 2.4 Vestibule, House of Julius Polybius, Pompei (early 1st Century AD)
Fig. 2.5 Reconstructed wall from Royal Palace, Pella, Macedonia (early 3rd Century)

Fig. 2.6 Detail, wall, Royal Palace, Pella
Fig. 2.7 House of the Relief of Telephus, Herculaneum (69/79 AD)
Fig. 2.8 Revetment, House of the Relief of Telephus
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Fig. 2.11 Revetment, Private baths, Trastevere (Middleton)
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Fig. 2.15-16 Cubiculum, House of the Griffins, Rome (c. 100 BC)
Fig. 2.17-19 Faux-revetment, House under SS. Giovanni e Paolo, Rome (4th Century)
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Fig. 2.24  Faux-marbling with figure of bird, atrium exedra, House of the Faun
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Fig. 2.45 Glass revetment, Iseum, Kenchreai, Greece (c. 370/375 AD)
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Fig. 5.6 Antonio Visentini, floor plan of floor, S. Marco, Venice (1750).
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