In a letter to a friend Leibniz likens the material (i.e. physical) effects of monadic (i.e. nonphysical) aggregates to the phenomenon of refraction/diffraction in the perception of a rainbow. \([\text{monads are the nonphysical, nonspatial, metaphysical units, the ‘simple substances’ of Leibniz’s philosophical system}]

In much the same way light is prismatically dispersed through droplets of water in a mist, giving rise to an arc of spectral colors, for Leibniz matter is the result of a comparable monadic refraction.

Bow, light, mist. All part of the same network.

Baudrillard’s real chimera: the thing perceived already an aggregate effect. Buddhism’s real chimera: the \(\text{skandhas (five aggregates)}\) and the causal interplay of emptiness and form.

Likewise, perception and appetition are obverses of an interdependent process; “Monads reach out confusedly to infinity, to everything, but they are restricted and distinguished from each other by the degrees of distinctness of their perceptions” (Leibniz, \textit{Monadology} § 60).

Monads reach out. They are always part of an extension. But this extension is guided by “confused” perceptions, perceptions fueled by appetitions (desires). Even though a monad’s theoretical extension is infinite, its particular desire(s) lead to distinct connections, and not to others (particular become the particulate). In this way desire forms the basis for a monadic aggregate-configuration, a collection then subjected to diffraction.

\[
\begin{align*}
\text{[bare monads]} & \leftrightarrow \text{[configuration]} \leftrightarrow \text{[perception]} \\
\text{(desire)} & \leftrightarrow \text{(diffraction)}
\end{align*}
\]

Seen in another light, Leibniz unfolds a network model. Desire constitutes a machinic connectivity in the formation of an assemblage. The aggregation of materials in the assemblage gives rise to perceptual arrays. “The working of the internal principle that accounts for the transition from one perception to another may be called appetition. It is true that appetition does not always completely attain what it strives for, but it always achieves something of it and so leads to new perceptions” (\textit{Monadology} §15).
Following a similar aggregation schema, the layout of this little essay is de-
liberately monadic. It presents four types of serialized writing: 1) the authors’
thoughts on musical networks 2) examples of networks drawn from other
disciplines 3) poetic graffiti 4) an inspection of Louis (?) Couperin’s F major
harpsichord suite. These four series proceed simultaneously and are typo-
graphically arranged in the following tabular manner;

Each series is a monad that can be blended or cross-referenced with the oth-
ers (or not), following one’s appetite. We have not made any overt attempts
to concretize the materials. Readers are to assemble their own diffractions.

Can we switch to a mode of analysis that looks around for aggregate condi-
tion generators as opposed to only describing the diffracted results? Can we
look at our own monadic desires - mist before matter - and the networks
they form? Can we construct images that continue an intervention in and
multiplication of the creative processus itself?
A **panoptic Egoism.** The dream of an analysis that contains everything without letting itself be contained. An intellectual climate control, a bubble, erected against the gelid stellar winds of an incalculable uncertainty.

A scholarship that vainly attempts to cobble together its very own immune system. 68° seems nice, yes? “An inquiry into our location [] examines the place that humans create in order to have somewhere they can appear as those who they are.”

Panoptic case study no. 1, an excerpt from the Society of Music Theory’s mission statement (http://societymusictheory.org/): “The Society for Music Theory promotes the development of all aspects of the discipline of music theory. The Society construes this discipline broadly to be the formal study of music of the Western tradition and beyond, embracing **all approaches** from conceptual to practical, and **all perspectives**, including those of the listener, composer, performer, and teacher [and_____ Pimp?].”

---

**Leibniz,**
**Monadology §20**

*We sometimes experience in ourselves states in which we remember nothing and have no distinct perceptions as when we fall into a faint or when we are overcome by a deep dreamless sleep. In such states our souls scarcely differ from those of bare monads.*

---

**Mallarmé**

*Nothing took place but the place*
David Fuller ascribes the ‘quality of an aggregate’ to the keyboard suites of Louis Couperin and notes how publishers of the time not only freely rearranged materials, but often even inserted miscellaneous pieces by various composers into their formations. The composition of the individual movements and their arrangement into a publishable folio constitute two (or more) separate acts performed by two (or more) people. Fittingly, we are not even sure that Louis Couperin (known also as a viol player and organist) is in fact the composer of these stylized keyboard works (perhaps another Couperin was more suited to the task?). Further complicating matters, there are two manuscripts (the Bauyn and the Parville), neither of which appear in the hand of Louis.

Whereas the Parville MS gives a particular ordering of the dances, the Bauyn MS instead presents a tabular index of movements. The suite as a tabular site, grouping genres of dances without any specific ordering. The tables are arranged in ascending order of keys, from C major to C minor, D major to D minor, etc.

Listed below and numbered 1-19 are the movements available for a possible suite in F major:

| 1 prelude (a) | 2 prelude (b) |
| 3 allemande (a) | 4 allemande grave (b) |
| 5 courante (a) | 6 courante (b) | 7 courante (c) | 8 courante (d) |
| 9 sarabande (a) | 10 sarabande (b) | 11 sarabande (c) |
| 12 gigue (a) | 13 gigue (b) |
| 14 chaconne (a) | 15 chaconne (b) | 16 chaconne (c) |
| 17 gaillarde |
| 18 branle de basque |
| 19 tombeau de mr. Blancrocher |
Where would we be located if every event unfolded a beyond, and what would appear if more could always be discerned in that beyond? A simple answer: we would be located in a network. But a network is not a simple location.

Actor-network philosopher Bruno Latour once asked if a railroad is local or global and notoriously answered, “local, at all points,” a mesh of continuous, extended paths (the same path at once connects neighboring townships but also extends across national borders). Within a network the notion of absolute, measurable distance is disoriented within an unthinkable space.

This pleated, polychronic paradox infects the field of music theory as soon as it intones the concept of networks (K-Nets, L-Nets, and the like) opening a pandora’s box of extension. At the same time, theory attempts (both institutionally and conceptually) to stabilize and control the field, revealing the political dimension of network establishment.2

2 Network actor Henry Klumpenhouwer — inventor of the infamous K-nets that have graced the covers of theoretical publications since the 90’s and a student of David Lewin at Harvard (whose transformational theory has likewise saturated the market) — was editor-in-chief of Music Theory Spectrum for many years, a favorable position indeed for a network operator. In graph theory the terms “indegree” and “outdegree” describe the way nodes are influenced by and exert an influence upon their neighbors, and thus details the way a node is embedded in the overall network. Being editor-in-chief would certainly qualify as an example of high “outdegree,” to the point of constituting what might be called a “provincial hub” (Sporns, 15).

“There arose in the wake [of this reorganization] the suspicion that there was a worse kind of order than that of the incongruous, the linking together of things that are inappropriate; I mean the disorder in which fragments of a large number of possible orders glitter separately in their [own] dimensions” [preface, xvii].

The tabular abstraction of space allows for organizational series that would not otherwise be possible. A circumstance that gives rise to ‘multiple originals’ in which partial solutions are fed back, *ad infinitum*, into the open system.
louis couperin unmeasured prelude option (a), pg1
for the assemblage of a suite in f major
The Order of Things begins with a description of the wondrous and charm of another system of thought... Foucault takes from Borges the literary example of a fictitious encyclopedia of fantastic animals, arranged along an alphabetic series. It is not the fabulous and exotic animals that are "impossible," nor the oddity of their juxtapositions... rather it is the alphabetic series itself, a simple arrangement capable of reorganizing and linking all these categories together.

What is the measurable distance between encyclopedic entries for A and B?

"The nature of fields is inevitably mysterious. According to modern physics, these entities are more fundamental than matter. Fields cannot be explained in terms of matter; rather, matter is explained in terms of energy within fields." [Biologist, Rupert Sheldrake, 99]

Openness (zangtgal) means that the wide-open, natural state of awareness is neither composed of nor produced by conceptual thoughts. It is a complete openness that is not obscured [confused] by the world and beings, the animate and inanimate, nor even the aggregates, elements or sense bases. It is an unchanging openness of awareness that continues throughout the day and night.

-Deogchen Buddhism

The meticulous elaboration of catalogues of uncoded fantasies... in order to function, the fantasy must remain at the level of a crudely coded image.

-M. de Sade

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I have come to think that time is simply a distension. But of what is it a distension? I do not know, but it would be surprising if it is not that of the mind itself. -St. Augustine, Confessions [240]

Unpasteurized Theoretical Discourse

Sometimes, in the altitudes of becoming, bubbles burst.

Under the right conditions, however, music theory’s orientations, its panoptic desires, are capable of being applied outside their proper sphere through a process of network coupling. There, in extension, outside its bubble, in the high altitudes where oxygen is scarce, theory becomes hypoxic, becomes-deformed. An extension-become-distension (distensio) in the activation of an uncertain vapor-space. We parasitically appropriate this hypoxic shell towards a euphoric, experiential usage, one maintained through desirous, amnesiac looping mechanisms. A fix.

3 Hypoxia is a pathological condition in which the body as a whole or a region of the body is deprived of adequate oxygen supply. The symptoms of generalized hypoxia depend on its severity and acceleration of onset. In the case of altitude sickness [ie, 'becoming'], where hypoxia develops gradually, the symptoms include headaches, fatigue, shortness of breath, a feeling of euphoria and nausea. In severe hypoxia [ie, department meetings] changes in levels of consciousness, seizures, coma, priapism, and death occur [the now scholarly wikipedia]. Furthermore, in the altitudes of becoming amnesia [and identity loss] is not an uncommon symptom. (http://www.human-memory.net/disorders_amnesia.html)

4 Distention spasm; distortion; tear; the act of expanding by pressure from within. Related term Diastasis spreading out.

whole intellects disgorged in total recall for seven days and nights with brilliant eyes, meat for the synagogue cast on the pavement, who vanished into nowhere zen New Jersey...

-Allen Ginsberg
changement de mouvement
Through a milky, cataracted lens, the aged theorist examines a diagram of the iconic automorphism of the $T_n/I_n$ group, is first distracted, but then rather taken by the presence of retinal floaters (taken, by the degenerative changes of the vitreous humour), contemplates their thread-like morphologies, experiences scintillation owing to the refractive index of the late afternoon light, and momentarily daydreams an alternate taxonomy.

Every event discerned has a beyond even if it remains inaudible. We might make out the song of a nightingale but not the circulation of its blood (or perhaps the song to which its own song is, in turn, a response). Furthermore, since we never know what lies beyond, nor how exactly to discern what lies in that distance, it is crucial that we not block the channels of extension by demanding concise, coded definitions of how the process works.

Uncoded qualities facilitate extension.

Argus, with his clairvoy-ant, all-scrutinizing oc-cular globe of a thousand eyes can "integrate all the information available from a single point." Hermes, on the other hand, invents the syrinx [the panpipes] and charms Panoptes into a deep sleep, kills Panoptes with his flutes. Pan vs. Panoptes; hearing against sight. Hermes intercepts "all information in all places." Sight is always localized, but "a sound has no specific place; it occupies space," its source is vague. (see Serres, Panoptic Theo-ry, 38)

Angela Ndalianis, who draws connections be-tween Leibniz’s use of series and open structures in Baroque thought as well as in contemporary neo-baroque gaming/cinematic technologies de-scribes the situation as follows:

"The use of multiple centers (multiple originals) typical of seriality requires a reconsideration of tradi-tional perceptions of linearity and closed form. Neo-baroque seriality demands that a single linear framework no longer dominate the whole..."
the emergence of the repeated note amidst
the flux of the prelude constitutes nothing less
than the protogenesis of a dotted feel (that
particularly French form of striation) - a
framing condition and its network extension and
territorialization, first of the changement de
mouvement section of the prelude, followed by
the infection of virtually every subsequent
movement.

at any rate, we’re afraid the Couperins beat Boulez to the desert of the smooth and the
metropolis of the striated - to say nothing of the open folio condition of the suite and its
various dys-ordres...
The successful fruition of imaginative experiments (an evolution Whitehead outlines in *Process and Reality*) should be gauged by the applicability of results — results achieved through the “play of free imagination” — beyond the narrow circumstances under which they originated. Ideally these results should, “enlighten observation in remote [transversal] fields.”

How does this extensive continuum work? Whitehead asks, “How can concrete fact exhibit entities abstract from itself and yet participated in by its own nature?” (*Process*, 20)

To answer this question he makes reference to three terms; **Nexus**, **Actual Entities**, and **Prehensions**.

And what drives this train (i.e. God’s creative immanence in the world)? A principle of “unrest” encapsulated by a notable term; Appetition. Whitehead defines appetition as “the urge towards realization of the datum conceptually prehended.”

“Thirst,” is an “appetite towards difference” that marks the “germ of a free imagination” (*Process*, 32).

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**Nexus:** the fact of togetherness of actual entities

**Actual Entities (or, Actual Occasions):** the “drops of experience, complex and interdependent” (18) that involve each other by reason of their prehensions of each other

**Prehension:** an external referent embedded within an actual occasion. There is a fundamental relationship, a form of structural coupling, that accumulates prehensions into actual occasions, and actual occasions into societies or nexus (the nested interrelations of actual occasions). A characteristic of an actual entity is reproduced in a prehension. “It might have been a complete actuality; but, by reason of a certain incomplete partiality, a prehension is only a subordinate element in an actual entity.” (19)

---

**With Bergson we always start in the middle.** He decenters an absolute, panoptic viewpoint by means of images; “Here I am in the presence of images, in the vaguest possible sense of the term…” (MM pg 1)

A field of images.
Tired of equations and expressions substituting for musical thought? Tired of getting PUMT? [Obviously] we are not opposed to a fold involving music, science or mathematics (or theology, literature, and programming languages, for that matter), not at all. But what figure of thought emerges from this complex mixture, from these vortices? The answer to this question is what theory designs.

A diagram is different from a structure or the representation of a structure. It would be closer to say it is a possible structure. But that’s not quite right either. A figure of the previously unfigured, yet immanent process written across the surface of the Real. A diagram reveals a system of multiple, generative traces. A screen upon which potential forces mingle in the extensive continuum, “[causing] the already imprinted to appear as other figurations, both blurring and revealing what already exists” (Eisenman, 103).

An image set to work in the micromorphological aggregate of our phenomenological architecture(s). An image-set to work. ‘Diagrams’ are the necessarily distorted format of these interfacing processes. This essay itself is a diagram (one leaving behind, or at least setting adrift, the old morality of the musical example’s rationalism, minus the musicological fear of tearing open a score and getting your hands dirty [the fear of all those parasites]).
Music Theory has presented one possible version (typically involving the limited parameters of interval cycles and transposition) of what ‘networks’ in music might be. Rather than add to the undue attention these networks have already been given, and following the inventor’s own recommendation, we choose to go elsewhere.

The terminological deterritorialization of any K-Net or L-Net with a Gardinerian-Sakatian notion of a network will henceforth be called a G-Spot. 

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What things are contemporary? Consider a late model car. It is a disparate aggregate of scientific and technical solutions dating from different periods.

-Latour & Serres, 45

-neolithic wheel & radio

-flamingo pink steering fluid

-i-pod deck

-car seats/furniture

-vulcanized rubber...

-image systems & strange attractors

---

On page three of Matter and Memory, Bergson refers to an aggregate of images (he later mentions Leibniz’s monads by name, along with Faraday’s field theory, see pg 31).

Images are what is given, what is the case. Their origin is not of concern to him, or really even knowable, for that matter. And in this sense, even though Bergson is talking about the relation of images to the image of the body, a context fairly divorced from the concerns of Heidegger (writing some thirty years later), there is nevertheless a sentiment of “thrown-ness” to his descriptions of the aggregate—namely, we are already within the aggregate, and therefore unable, from the standpoint of the body, to see its complete extension.

A desert of images (as Borges reminds us, in the desert one is always in the middle).

Images are not things or appearances. The body, the soul, and the brain are themselves just images. “To make the brain the condition on which the whole image depends is in truth a contradiction in terms, since the brain is by hypothesis a part of this image. Neither nerves nor nerve centres can, then, condition the image of the universe.” (MM, 4)
There are arguments for any number of conceivable orders of dance movements; (P)relude, (A)llemande, (C)ourante, (S)arabande, (G)igue with further possible inserts or extensions is one of the more common arrangements. With Louis Couperin’s suites we add the chaconne (Ch) onto the end and arrive at a template used by a large number of performers. Also note that with the A-C-S-G-Ch, there are often at least two selections to choose from within each class of movement – in some recordings performers only play a single dance from the same category, in others they play two or three in a row before moving on [for example, Lawernce Cummings chooses only one courante and one sarabande, whereas Richard Egarr plays three of the four courantes in a row followed by two sarabandes]. With Froberger, the ordering of suites was often allemande, gigue, courante, and sarabande last...

Even if we take the fairly conservative ordering A-C-S-G-Ch, beginning with a prelude, and making allowances for the miscellaneous movement inserts (gaillarde, branle de basque, tombeau de mr. Blancrocher) we arrive at an already fairly diverse array of versions involving almost one-hundred edges (the nineteen dance movements are the ‘nodes’ that give rise to ninety-eight ‘edges’, or connections. In graph theory an edge is considered ‘directed’ if it flows in a single direction, for example a prelude will always precede an allemande, and not vice versa. However, allemande (a) could come before or after allemande (b), establishing a ‘undirected’ connection);

```latex
{the 98 [conservative] edges of louis couperin’s f major suite
\begin{tabular}{ccc}
1 - prelude (a) & 3 - allemande (a) & Directed (edge no. 1) \\
1 - prelude (a) & 4 - allemande (b) & Directed (edge no. 2) \\
1 - prelude (a) & 17 - gaillarde & Directed (edge no. 51) \\
1 - prelude (a) & 18 - branle de basque & Directed (edge no. 52) \\
1 - prelude (a) & 19 - tombeau de mr. Blancrocher & Directed (edge no. 53) \\
2 - prelude (b) & 3 - allemande (a) & Directed (edge no. 3) \\
2 - prelude (b) & 4 - allemande (b) & Directed (edge no. 4) \\
2 - prelude (b) & 17 - gaillarde & Directed (edge no. 54) \\
2 - prelude (b) & 18 - branle de basque & Directed (edge no. 55) \\
2 - prelude (b) & 19 - tombeau de mr. Blancrocher & Directed (edge no. 56) \\
3 - allemande (a) & 4 - allemande (b) & Undirected (edge no. 5) \\
3 - allemande (a) & 5 - courante (a) & Directed (edge no. 6) \\
3 - allemande (a) & 6 - courante (b) & Directed (edge no. 7) \\
3 - allemande (a) & 7 - courante (c) & Directed (edge no. 8) \\
3 - allemande (a) & 8 - courante (d) & Directed (edge no. 9) \\
3 - allemande (a) & 17 - gaillarde & Undirected (edge no. 57) \\
3 - allemande (a) & 18 - branle de basque & Undirected (edge no. 58) \\
3 - allemande (a) & 19 - tombeau de mr. Blancrocher & Undirected (edge no. 59) \\
4 - allemande (b) & 5 - courante (a) & Directed (edge no. 10)
\end{tabular}
```
Sheldrake’s research applies theories of morphic resonance to domains such as protein folding, crystallization, genes/mutations, animal behavior and memory, human learning, habituation and awareness, and to theories of social and cultural organization. Sheldrake says that each kind of system has its own field, “There is an insulin field, a beech field, [a Schenker field?] a swallow field, and so on. Such fields shape all the different kinds of atoms, molecules, crystals, living organisms, societies, customs, and habits of mind” (intro xviii).

Images facilitate action, not knowledge. We respond to images, but this is not knowledge precisely because the images we receive are limited, necessarily filtered.

And here Bergson returns us to Leibniz’s confused monadic appetition. In the case of bodily perception we relate the aggregate of images to our possible or eventual actions upon it. This is because the body becomes a center, a “privileged image” that distorts or conditions relationships between images: “At each of its [the body’s] movements everything changes...

**Despite the air of quasi-scientism** that surrounds the institution of music theory Klumpenhouwer himself has expressed more hermetic goals. In response to the same critic quoted above we read:

“[21] Let us turn now to the last two sentences of Buchler’s essay. He writes that ‘[w]e all have different goals for analysis, but surely one central purpose is to clarify and explain.’ Well, no.”

Klumpenhouwer goes on by referencing his mentor at Harvard on the topic of clarity, “While Lewin may be interested in clarifying and explaining analytical technology, this is decidedly not Lewin’s goal in carrying out analysis.”

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“Of the aggregate of images we cannot say that it is within us or without us, since interiority and exteriority are only relations among images” (Bergson, MM,13).

Images facilitate action, not knowledge. We respond to images, but this is not knowledge precisely because the images we receive are limited, necessarily filtered.
There is no particular reason, at this point, that the data must remain in a tabular form – the information might be the same, but the emergent figure is not.
He continues, “At the end of his essay on Fétis (1987), Lewin quotes Schoenberg as a way of declaring his own analytical project: ‘One searches for the sake of searching... . Finding ... can easily put an end to striving. Our age seeks many things. What it has found, however, is above all: comfort. Comfort, with all its implications, intrudes even into the world of ideas and makes us far more content than we should ever be... . We solve problems to remove an unpleasantness. But, how do we solve them? And what presumption, even to think we have already solved them! ... It is ... easy to have a ‘Weltanschauung,’ a ‘philosophy,’ if one contemplates only what is pleasant and gives no heed to the rest. The rest—which is just what matters ... These philosophies may very well seem made to order for those who hold them ... The thinker, who keeps on searching, does the opposite. He shows that there are problems and that they are unsolved ... Those who so love comfort will never seek where there is not definitely something to find.’” [quoted in MTO Volume 13, Number 3, September 2007]

On this point, we find ourselves in total agreement with Mr. Klumpenhouwer.

...as though by a turn of the a kaleidoscope. ”

Bergson counterpoises this mode of perception with the same aggregate of images “but [now] referred each one to itself... this is what I term the universe.”(12)

And thus, paradoxically, to restore a truly panoptic viewpoint, one would have to descend into the awareness of a material object, the lower depths of a panpsychism, what Chalmers means by the question “What is it like to be a thermostat?”(The Conscious Mind, 296).

What is it like to be a music student at Harvard?

“Indifferent to each other because of the radical mechanism which binds them together, they [images] present each to the others all their sides at once: which means that they act and react mutually by all their elements, and that none of them perceives or is perceived consciously.”(MM, 29)
9 - sarabande (a)      18 - branle de basque Undirected (edge no. 76)
10 - sarabande (b)      19 - tombeau de Mr. Blancrocher Undirected (edge no. 77)
10 - sarabande (b)      17 - gaillarde Undirected (edge no. 78)
10 - sarabande (b)      18 - branle de basque Undirected (edge no. 79)
10 - sarabande (b)      19 - tombeau de Mr. Blancrocher Undirected (edge no. 80)
11 - sarabande (c)      12 - gigue (a) Directed (edge no. 39)
11 - sarabande (c)      13 - gigue (b) Directed (edge no. 40)
11 - sarabande (c)      17 - gaillarde Undirected (edge no. 81)
11 - sarabande (c)      18 - branle de basque Undirected (edge no. 82)
11 - sarabande (c)      19 - tombeau de Mr. Blancrocher Undirected (edge no. 83)
12 - gigue (a)      13 - gigue (b) Undirected (edge no. 41)
12 - gigue (a)      14 - chaconne (a) Directed (edge no. 42)
12 - gigue (a)      15 - chaconne (b) Directed (edge no. 43)
12 - gigue (a)      16 - chaconne (c) Directed (edge no. 44)
12 - gigue (a)      17 - gaillarde Undirected (edge no. 84)
12 - gigue (a)      18 - branle de basque Undirected (edge no. 85)
12 - gigue (a)      19 - tombeau de Mr. Blancrocher Undirected (edge no. 86)
13 - gigue (b)      14 - chaconne (a) Directed (edge no. 45)
13 - gigue (b)      15 - chaconne (b) Directed (edge no. 46)
13 - gigue (b)      16 - chaconne (c) Directed (edge no. 47)
At the end of the day it’s as easy to criticize music theory as it is to pronounce the death/erasure of an author (May ’68 seems nice, yes?). Criticism itself generates nothing, produces nothing. How much harder to continue to write in the space of erasure, to continue to theorize from within the poverty of the current state of theory (New Haven?).

We must remain steadfast in our unclarified, neo-Lewinian groping.

We must go back to the state we affirmed of Eternity, unwavering life, undivided totality... time was not yet...

Time lay, though not yet as time, in the authentic existent together with the cosmos itself. But there was an active principle there... it chose to aim at something more than its present: it stirred from its rest... stirring to a ceaseless succession to a next... [it] traversed a portion of the outgoing path and produced an image of eternity, produced time. [time = image of oneness]

For the soul contained an unquiet faculty, always desirous of translating elsewhere what it saw in the authentic realm, and could not bear to retain within itself all the dense fullness of its possession.

A seed is at rest; the nature-principle within,

-Plotinus, Enneads, 227

One could say that the perception of any unconscious material point, in its instantaneity, is infinitely more vast and more complete than our perception, because this point receives and transmits the actions of all the points of the material world, whereas our consciousness only attains certain parts of it, from certain perspective.

[Guérlac, 116]

Although we don’t gain knowledge through images, we do become operators or conductors within the world of images. Bergson describes the nervous system as an interface, a network of ‘threads’, between the images that affect our body and those that we, in turn, have influence upon — a network that runs from a center out to the periphery, and vice versa.
The term ‘hybrid space’ often refers to the specific material effects in which spatial designs are projected across and through each other (the ‘blobular’ approach, say of the architectural firm Zolatan McDonald and their patented ‘co-citation mapping’ technique that surveys and morphs elements of a landscape with forms introduced into that landscape, resulting in smoothed continuous surfaces). But equally important, hybrid space refers to a between-space, to the gaps and intervals that exist between various design approaches. Software presents an overt example of this; if we start with a sonic image, perhaps a wav. file generated from a MAX/MSP or Reaktor patch, and import it into a Melodyne application (a.k.a. ‘auto-tune’ software), and then import the cumulative result into a granular cloud generator, then take all the source files and the cumulative results and place them into an Ableton Live patch and improvise a micro-montage, etcetera ad infinitum. As soon as results are shuffled between various applications (sheets-of-past), between-spaces begin to emerge. But books or concepts function much like software as well, do they not?—whatever you happen to be reading, say, Adorno, William Burroughs, Claude Simon, Japanese noh drama (to take a current sampling from our attaché cases), if you run a thought through these various literary programs you will likewise arrive at a hybrid.
Gonzo analysis:
Fear and Loathing in New Haven

Did you know that panoptic egoism is one of the leading causes of intellectual hypoxia in music departments across the United States, which, in some severe cases has even led to zombied states of scholarship?7

Perhaps, one could sublimate or transmute the desire for a panoptic analysis while dispersing its monadic elements in such a way that short circuits the totalizing myth, what Mallarmé (node addict) referred to as the Prismatic Subdivision of the Idea? Maybe we can still write ‘in memory’ of analysis, that is, turn analysis into a memory-function, a network memory. The first memory would be that of analysis itself. This ensures that a trace will be retained (my degree must mean something?).

7 Sometimes referred to as the Prolonged Unconscious of Music Theory (PUMT). According to the conceivability argument in current philosophies of mind, it is conceivable that there exists a being, physically identical to a human, but one that does not possess consciousness. Such a thought experiment points to the problem that we could conceivably be perfectly functional in tasks such as discrimination, reporting, monitoring, controlling, etc., without needing subjective consciousness. David Chalmers elucidates some possible zombie sub-categories: 1) an invert zombie, in which some of the original human-being’s experiences have been replaced [in the zombie] with other experiences (we imagine something like this happened with students enrolled in David Lewin’s seminars at Harvard); and 2) a partial zombie with only some experiences absent (such as experiences of musicality or creativity); or 3) some combination of 1 & 2.

Non-unitary selves and cognitive agents

“We always operate in some kind of immediacy of a given situation... a ready-at-hand. We have a readiness-for-action proper to every lived situation. Moreover, we are constantly moving from one readiness-for-action to another. Often these transitions are virtually imperceptible...sometimes they are overwhelming [and lead to a breakdown or a gap], as when we come face to face with unexpected danger... I call any such readiness-for-action a micro-identity and its corresponding lived situation a micro-world.” [Cognitive Scientist, Francisco Varela, 9-10]
Having the order [ordre] in flux (as well as the number of any given dance type of a single category in flux), being able to counter and contour the energies of the suite in novel ways; all this had as much to do with the scene and the mood one was in on a particular occasion as with anything else.

The emergence of an everyday functional folio.

Looking around for various inclusions and exclusions, the profound or banal aggregate desire of an i-tunes playlist. Nothing more, nothing less.

distortions desire diagrams
Mnestic deformation as a mode of production

What kinds of images does memory give rise to? Superimposed states of recaptured timelessness.

When the imagination forms an image it is already disfigured (for Bachelard, imagination is precisely that which deforms). Why? Because the elements of memory abide in a fragmented, uncoded/transcoded state. The site of memory does not order its nodes in linear succession (even if that’s how they were initially given to us). Rather, they orbit and cluster around the center of the network, where they remain in virtual modes of correspondence/aggregation.

Leibniz, Monadology §14

The passing condition, which involves and represents a multiplicity in the unit [“unite”] or simple substance, is nothing but what is called Perception. In this matter the Cartesian view is defective, for it treats as non-existent those perceptions of which we are not consciously aware. This has also led them to believe that minds [“esprits”] alone are Monads, and that there are no souls of animals nor other Entelechies. Thus they have failed to distinguish between a prolonged unconsciousness and absolute death, which has made them fall again into the Scholastic prejudice of souls entirely separate [“from bodies”], and has even confirmed ill-balanced minds in the opinion that souls are mortal.

"In the breakdown before the next microworld shows up, there are a myriad of possibilities available until, out of the constraints of the situation and the recurrence of history, a single one is selected.” [Varela, 52]

“Networks of overlapping ensembles multiply exponentially as we move ‘up’ the evolutionary chain of complexity, in humans connecting some $10^{11}$ interneurons connect up some $10^7$ sensory neurons arrayed in receptor surfaces across the body.” [Varela, 46]

The overlapping systems of dense interconnections result in non-linear feedback networks that operate according to what Varela calls The Law of Reciprocity, which reads; “If a region A is connected to another region B, then B is also connected to A, but by a different anatomical route.” [ibid, 46-7]

Like its English equivalent, the word histoire also has the related meaning of story or account, but in French common usage it has, when used in the plural, two sarcastic meanings which it does not have in other languages: lies or bullshit, and problems or hassles.

~John Howe
And then there is the figure of Marin Mersenne: French theologian, mathematician, music theorist, (monadologist) and contemporary of Couperin. Mersenne led a string ensemble, les vingt-quatre violins du roy in which the dessus violinists would each (simultaneously) improvise their own diminutions (ornamentations) of the melody, resulting in multiple versions sounding at the same time.

Describing the sonic effect of this practice Mersenne wrote “the beauties and graces have great effect on the passions and affections of the body and soul.” [Cambridge History of Western Music Theory, pg 544].
In Proust’s project, this is what Kristeva names the translation of linear time into the timelessness of literature. Within such a network, memories initially spread across the space of one’s entire life are inserted into, cross-cut, and morphed with each other, resulting in hybrids. A childhood memory \( \{X\} \) is perhaps triggered by, and morphed with a lover’s rejection \( \{Y\} \). “Memories are both destroyed and recaptured, without any solution of continuity. [The] faculty of memory is lodged in an unknown domain, in the entire existence of our bodies, with the effect that a series of different and parallel states of the self are superimposed.” [Kristeva, 13]

In confronting an all-encompassing panoptic perspective, one of the key sites, the very mind of the reader (the guard in the tower), is made impossible through imagistic dispersions preventing totalization. When forced into scanning one’s own memory-of-what-has-been-read, the apparently clear demarcations and segregated threads turn out to be a network of complicating states and flows, of fragments and recaptured information (in the film last year at Marienbad the main character, according to director Robbe-Grillet, is not person X or Y, or even the resort, but the brain of the viewer of the film).

“What I wish to underscore here is the relatively recent (and stunning) conclusion that lots of simple agents having simple properties may be brought together, even in a haphazard way, to give rise to what appears to an observer as a purposeful and integrated whole, without the need for central supervision.” [Varela, 52]

“This corresponds exactly to what I mean by a...
Analyzing the outcome of decisions as opposed to the potential (aggregate) space they represent is perhaps comparable to the difference between a collage and a hybrid. Peter Zellner writes: “Because each component in a collage or montage remains discrete, the whole can be broken down and disassembled. Within the chimerical hybrid, on the other hand… a union between distinct elements is seamless and indistinguishable and thus irreversible and irreducible” [Zellner, 24]. Smooth, hybrid topologies are capable of mapping continuums of difference and thus support a figure of thought, a design, able to layer varied aggregate desires and capture the shimmering sound of Mersenne’s violins.

So how might one arrive at a hybrid topology of Couperin’s aggregate incompossibles? One method could be borrowed from architecture’s diagrammatic use of Bézier curves and splines in model rendering.

The following images take the contour of the opening phrases of each of the two F major preludes, and using Bézier and spline functions in the Mathematica programming language, renders a smooth version.
Clusters of memory-nodes give rise to an ever-expanding network of linkages. "The interconnectivity [of experience] normally ensures that when a situation jogs to life one particular set of responses we continue to have [resonances throughout] a wider web of recollections" (Carter, *Multiplicity*, 55).

Specific neural routes begin to form habits of co-firing by means of a process known as ‘long-term potentiation’ or LTP (a synchronous bond between two or more neurons that fire in close sequence, making them more likely to fire together in the future). These habits, in turn, begin to shape ways and modes of being/perceiving.

If, however, a cluster of nodes fails to form connections with the rest of the network, a strong filtering of consciousness, sometimes with amnesia-like effects of derealization, can ensue, in some cases leading to euphoric experiential states. Steven Gold has argued that states of dissociation, dissaggregation, depersonalization and derealization are so common these days that they could be regarded as “normative characteristic[s] of modern life.” Gold even writes that “the structure of contemporary society promotes a dissociative existence” (Gold, quoted in Carter, 72).

"What is impossible is not the propinquity of the things listed, but the very site on which their..."
Then, the smoothed contours of both prelude options are morphed again into a single topological skin exposing a "pure duration", a duration in which various other durations are co-ordinated
Relatively large quantities of trail pheromone provide a sufficient amount of initial attraction and induction to get the process started. Once turned on by these relatively short lived signals, the ants also follow trails consisting of small amounts of orientation pheromones. The ants are able to detect the complex by smelling the vapor it emits. When activated, they do not, however, simply track the liquid trace itself. Instead, they move through the vapor created by diffusion of the pheromone into the air. All around the liquid deposit and within the vapor cloud is an “active space.”

-E.O. Wilson, The Super-organisms, 61

Theory as a practice of normative derealization

Memory is not a single system but a process involving encoding, storing, and retrieving (making use of sensory memory, short-term/working memory, and long-term memory, respectively). ‘Consolidation’ is the process of moving memories from short-term to long-term storage. For a memory to be established in long-term memory, it must be ‘marked’ by an emotionally significant event, causing the release of norepinephrine, which in turn promotes protein synthesis in the amygdala. But ‘marking’ is not the same as fixing a location. Rather, the event gives rise to floating, ‘recaptured’ nodes.

*Sensory memory* is made up of the fleeting ‘iconic’ and ‘echoic’ (visual & auditory) traces held for approximately 10 milliseconds in a ‘recognition buffer’.

*Short term/working memory* actively holds small amounts of information over the period of a few seconds which is then reinforced by means of a subvocal articulatory rehearsal process (Baddeley and Hitch, 1974). We forever silently sing memory-traces to ourselves in phonological looping machines.

*Long-term memory*, as proposed by Squire (1992), involves components of *explicit/declarative memory* (open to intentional retrieval), *implicit/nondeclarative memory* (performance based, eg. ‘muscle memory’), *semantic memory* (assumed knowledge of the world), and *episodic memory* (capacity to remember events).

Morphic Resonance:

The research of Rupert Sheldrake opens the possibility, based on the theory of formative causation, that memory is inherent and cumulative in nature by arguing that each system has its own kind of field, which he calls a morphic field.

Sheldrake’s work, in a sense, is a theoretical extension of the kinds of fields already recognized by physics (gravitation, electro-magnetic, electron fields, neutron fields, etc.) into other domains.
You can see a kind of pleating happening at the bottom of the image; this is a form of temporal folding. Because the opening sections of the two unmeasured preludes are different lengths, specifically a different number of attack points, in order to make a single skin we placed the differing proportion of attack points into the same field, a container to hold both versions. Upon doing this, the surface folded back onto itself, exerting a pull, a functioning omega point, further warping the image by revealing a temporal differential.
Once consolidated and marked, it is the long-term, episodic memory that has the most Proustian of implications. Tulving (2002) even coined the term ‘mental time travel’ in reference to the way memory scans and retrieves episodic cues/nodes. One such Proustian constituent involves the layering of sheets-of-past (Alain Resnais), the composite construction of images based on accumulated experience.9 [Our version of the Couperin’s prelude also involves Egarr’s and Wilson’s versions...] Such a construction also leads to the distinct, derealized possibility of confabulation (i.e., the memory of events that did not occur - the construction of ‘virtual’ prelude performances [{shift0.

9 Hasselmo proposes that divergent connections between the entorhinal cortex and the dentate gyrus could help us discriminate between separate episodes (141).

“What is impossible is not the propinquity of the things listed, but the very site on which their propinquity would be possible. Where could they ever meet, except in the immaterial sound of the voice...or on the page transcribing it.” [Foucault, The Order of Things, xvi]

Morphic fields are “non-material regions of influence extending in space and continuing in time. They are localized around the systems they organize. When any particular organized system ceases to exist, as when an atom splits, a snowflake melts, an animal dies, its organizing field disappears from that place. But in another sense, morphic fields do not disappear: they are potential organizing patterns of influence, and can appear again in other times and places, wherever and whenever the physical conditions are appropriate. When they do so, they contain within themselves a memory of their previous physical existences.” (intro xviii-xix)
Mathematica code for hybrid-morph Couperin images

Manipulate[
  Graphics3D[
    color, Specularity[White, 50],
    BSplineSurface[couperin, SplineDegree -> 3],
    Floor[degrees]],
  If[mesh,  
    {Black, Line[couperin], Line[Transpose[couperin]],
    Red, PointSize[.001],
    Point /@ couperin}, {}],
  Point /@ couperin, {{degrees, 1}, 1, 16, 1, ImageSize -> {400, 200}},
  Boxed -> False, Lighting -> "Neutral", RotationAction -> "Clip",
  ViewPoint -> {-4, -2, 4},
  Row[{{degrees, 1}, 1, 16, 1, ImageSize -> {400, 200}}],
  Dynamic[Floor[degrees]], Spacer[10],
  Row[{{color, ColorData["HTML", "Olive"]}, Mesh, {False, True}}], Spacer[10],
  Initialization :> (couperin = {

    {{0, 0, 0},  
    {10, 0, 0},  
    {20, 0, 0},  
    {40, 0, 23},  
    {50, 0, 23},  
    {60, 0, 23}},

    {{0, 2, 12},  
    {10, 2, 12},  
    {20, 2, 12},  
    {40, 3.15, 24},  
    {50, 3.15, 24},  
    {60, 3.15, 24}},

    {{0, 4, 24},  
    {10, 4, 24},  
    {20, 4, 24},  
    {40, 6.3, 26},  
    {50, 6.3, 26},  
    {60, 6.3, 26}},

    {{0, 6, 28},  
    {10, 6, 28},  
    {20, 6, 28},  
    {40, 9.45, 31}},

    {{0, 8, 31},  
    {10, 8, 31},  
    {20, 8, 31},  
    {40, 12.6, 37},  
    {50, 12.6, 37},  
    {60, 12.6, 37}},

    {{0, 10, 14},  
    {10, 10, 14},  
    {20, 10, 14},  
    {40, 15.75, 12},  
    {50, 15.75, 12},  
    {60, 15.75, 12}},

    {{0, 12, 19},  
    {10, 12, 19},  
    {20, 12, 19},  
    {40, 18.9, 19},  
    {50, 18.9, 19},  
    {60, 18.9, 19}},

    {{0, 14, 24},  
    {10, 14, 24},  
    {20, 14, 24},  
    {40, 22.05, 24},  
    {50, 22.05, 24},  
    {60, 22.05, 24}},

    {{0, 16, 28},  
    {10, 16, 28},  
    {20, 16, 28},  
    {40, 25.2, 28},  
    {50, 25.2, 28},  
    {60, 25.2, 28}},

    {{0, 18, 29},  
    {10, 18, 29},  
    {20, 18, 29},  
    {40, 28.35, 29},  
    {50, 28.35, 29},  
    {60, 28.35, 29}},

    {{0, 20, 26},  
    {10, 20, 26},  
    {20, 20, 26},  
    {40, 31.5, 26},  
    {50, 31.5, 26},  
    {60, 31.5, 26}},

    {{0, 22, 23},  
    {10, 22, 23},  
    {20, 22, 23},  
    {40, 34.65, 28},  
    {50, 34.65, 28},  
    {60, 34.65, 28}},

    {{0, 24, 24},  
    {10, 24, 24},  
    {20, 24, 24},  
    {40, 37.8, -1},  
    {50, 37.8, -1},  
    {60, 37.8, -1}},

    {{0, 26, 23},  
    {10, 26, 23},  
    {20, 26, 23},  
    {40, 40.95, 23}}};}
which/whose memory recurs?
In addition to the cumulative nature of episodic memories, research suggests that there is an ‘episodic buffer’ which functions like “a screen on which information from a range of sources is displayed” and presented for re-arrangement (Baddeley et al., 57). The very nature of the information tabulated on this screen is exceedingly pliant: The episodic buffer, as proposed, can hold up to four ‘blocks’ of information in a kind of multidimensional code, but there is a great deal of representational flexibility concerning the nature of these informational blocks. Three types of representations could serve as a block or item; an object, a set of objects (set-binding), or an ensemble (flocks, populations, and other statistical summaries of a scene) [Feigenson, 13-22]. Additionally, episodic memory also allows us to encode a spatiotemporal trajectory and positions/nodes along this trajectory without needing to rely on a linear chaining model (since we are capable of remembering, for example, the end of a sequence after missing some elements of a linear chain, or capable of reordering positions of a trajectory in a variety of configurations) [Hasselmo, 127]. Hasselmo also discusses the emergence of ambiguity due to “overlap in the location representations, [where] the network can miss segments of the trajectory or become trapped in loops,” causing retrieval to skip [130].
Looking around

“The shift from narration to tabulation as the destination of experience” [Fisher, *Torn space*, 668].

The shift to experience as tabulation corresponds to the machination of awareness. The screens and interfaces upon which our thoughts are constantly projected allow for an endless editing (photoshop, pro-tools, Max/MSP, Finale, Burroughs, Gephi, Deleuze, Mathematica, Plotinus, and the rest…). The ever-present availability of multiple originals, of an always editable fluid object creates a neo-baroque presence, a non-place, in which destinations lose much of their narrative charm.

“Everywhere the transparency of interfaces ends in internal refraction” [Baudrillard, *America*, 59].

“An open or torn space: a multiple, distracted, interrupted spatial experience that is related to ‘looking around’ and derives from our everyday, usually overlooked experiences in the city street” [Fisher, 668].

A theoretical lens that acknowledges the various bubbles in which we live exchanges an exacting, quasi-scientific ‘looking-at’ for a nodal ‘looking-around’, making and extending whatever connections are at hand, churning them into effervescent daydreams – a monadic, spectral fizz of aggregate arisings and passings. A reconsideration that converts, sorts, pulverizes, reconstructs (and regains) knowledge into flows of evental information upon the screen of memory.
Serres, Parasite:

But the Leibnizian solution,
through an unexpected paradox,
is maximally poor,
to minimize the disorder.
Order having taken everything over,
the mote of the dissonant seventh still remains
facing the flow of harmony.
The outlay is not great,
but the diversity remains weak.
As far as I know,
perfect tuning is not the
height of art,
and perhaps it is only its misery.
Might harmony
[i.e. the obsessive focus on musical language/pitch]
be a somewhat excited variety of flatness?
Might it be an antechamber of death?
This order from which parasitic dissonance
is chased as much as possible,
this homogeneity,
this similar moving toward identity, this repetition,
this straight line that is also the shortest,
this flatness--aren't we slipping toward this when we
lose acuity,
consciousness, life?
I fear that harmony [pitch] is only a heavy fol-de-rol
for minds that crave only repetition.
The world around us, in us,
victoriously defends itself
against this stupidity with the miraculous torrent of
the unexpected.
What remains intelligent in the cursus of the sciences is what is ahead, escaping the law.
Sporns, Olaf
Networks of the Brain
Cambridge, MIT Press, 2011
  the principle quality of a theory or of an idea -
Japanese Noh Dramas
Translated by Royall Tyler
  its traditional value, clarity - finds itself overtaken
Saville, Anthony
Routledge Philosophy Guidebook to Leibiniz and the Monadology
London & New York, Routledge, 2000
  [note the appendix contains a full translation of the monadology]
  by the speed of its passage. Pan or Hermes kills Panoptes... Audio-visual or computerized
Kristeva, Julia
Proust and the Sense of Time
Trans. Stephen Bann
New York, Columbia Univ. Press, 1993
  circuits make the guard towers of the last war, borrowed from Roman camps seem laughable...
Saint Augustine, Confessions
Trans. Henry Chadwick
Oxford University Press, 1991
  Whoever can control as he wishes our codes and their circulation in space
Carter, Rita
Multiplicity: The New Science of Personality, Identity, and the Self
  can let his watchers rest: they may fall asleep on their watches listening to music.
Barthes, Roland
The Preparation of the Novel
Trans. Kate Briggs
  The murmuring passage of messages
Hasselmo, Michael E.
How We Remember: Brain Mechanisms of Episodic Memory
Cambridge, MIT Press, 2012
  put the watchdog, the spy, and the informer to sleep;
Serres, Michel with Bruno Latour
Conversations on Science, Culture, and Time
Trans. Roxanne Lapidus
Ann Arbor, Univ. of Michigan Press 1995
  it anesthetizes the warder...
Sloterdijk, Peter
Spheres Volume I: Bubbles, Microspherology
Trans. Wieland Hoban
Los Angeles, Semiotext(e), 2011
  all the avatars of Panoptes are sent on vacation {from Serres’ Panoptic Theory}
Ndalianis, Angela
Neo-Baroque Aesthetics and Contemporary Entertainment
Cambridge, MIT Press, 2004


Murdoch, Jonathan Post-Structuralist Ge-...
Fisher, Philip

Torn Space: James Joyce's Ulysses in the Novel, Volume and Themes

Ed. Franco Moretti

Princeton University Press, 2006

{Aggregate Windows} {Uncoded Temporalities} {Diagrammatic Granulation} {Morphic Imagery}