Concrete Colonialism:
Architecture, Infrastructure, Urbanism and the American Colonization of the Philippines

Diana Jean Sandoval Martinez

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ABSTRACT

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Diana Jean Sandoval Martinez

This dissertation focuses on two different though interconnected uses of the word concrete, both of which were central to a largely overlooked chapter of American history—the American colonization of the Philippines (1898-1945). Originally a logician’s term meaning “actual and solid,” the word concrete only came to refer to the building material in the mid-nineteenth century, a popular usage emerging coincident with the industrial production of Portland cement—a material that American producers and promoters argued would enable the construction of an era of durable American greatness. The dawn of an American “concrete age”—an era otherwise referred to as the Progressive Era was also a time that saw the emergence of a language of “concrete” values; of actual, specific and measurable results. This period in history saw the apparent focus of American governance shift from the abstract and foundational principles of liberty towards more tangible values of investments and returns, i.e. on ‘development.’ This dissertation examines Daniel Burnham’s City Beautiful plan for Manila in addition to the construction of the colonial institutional and infrastructural projects (government buildings, ports, forts, bridges, roads, housing and prisons) through the analysis of five of concrete’s (and sometimes Portland cement’s) qualities; portability, stability, salubrity, strength, and plasticity. Through these examples I aim to demonstrate that concrete was not only a material used widely across America’s new possession in the Far East, but was also played a role in shaping new forms of global governance.
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Introduction

The West is known by its deeds, the East by its dreams. The Anglo-Saxon lives in the concrete, the Oriental in the shadows. The American, having found a “proposition” in a field makes haste and sells all that he has and buys that field that he may dig therein and get “results.” The Oriental inhales the drowsy fumes of some far off good that was, or is, or is to come—it little matters which—and is content…

George Amos Miller, Interesting Manila

In his 1906 travel guide Interesting Manila, George Amos Miller attempted to familiarize his American audience with the peoples of its brand new colonial territory by comparing the industrious American, racially defined as the “Anglo-Saxon,” to the passive “Oriental,” a figure who Amos describes as enveloped in a vaporous cloud of indifference. Miller was of course not speaking of “the concrete” in the material sense, but rather using the term to describe an American that invested in a real economy, an economy characterized by personal investment and quantifiable returns. However, by 1913 it was in even more respects that “the Anglo-Saxon

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1 The conditions of the Treaty of Paris outlined that Spain relinquish nearly all of its remaining empire, ceding Cuba, Puerto Rico, Guam and the Philippines to the United States. The Philippines was purchased for $20 million.

2 Amos Miller does not assume as the vast majority of Americans visiting and working in the Philippines do, the superiority of the Anglo-Saxon, who he argues is too preoccupied with “results” to enjoy life. He still, however, reinforces difference. In describing Manila, as a “dream city” he engages in a sort of Orientalist fantasy. To this effect Miller wrote:

Here is a land where men are not measured by results, where life is not contained in the abundance of things that a man possesses, where something besides balance sheets and bedrock chances are the final goal, if indeed, it has any destination. And the old east is rich in that one commodity in which the new West is utterly and hopelessly bankrupt. We (the author here occupies the voice of the Oriental) are millionaires in time. We may not be long on houses and lands and every new day does not lay at our feet the opportunity of a lifetime to get in on the ground floor, but we have time and to spare; and with all their progress and power and pomp, the kings of commerce are miserable paupers pitiably begging, as they rush along, for a morsel of time in which to stop and live.

George Amos Miller Interesting Manila, Manila: E.C. McCullough & Co., 1906 pg. 51
live[d] in the concrete, (and) the Oriental in the shadows.” By this time, a short seven years later when George Hamlin Fitch would write his travel guide *The Critic in The Orient*, Manila was a city transformed by the building material. Fitch opens his chapter on the Philippines by describing Manila’s approaching horizon as a huge mass of concrete, writing further that

> Reinforced concrete is now the favorite building material of the new Manila. Not only are the piles and docks made of this material, but all the new warehouses and business buildings as well as most of the American and foreign residences are of concrete. It is substantial, clean, cool and enduring, meeting every requirement of this tropical environment.³

In between the publication of these two travel guides the American colonial administration had built the government-owned Manila Hotel, the General Hospital, the first buildings of the University of the Philippines, Manila City Hall, thousands of miles of concrete road, concrete lined reservoirs, hundreds of cisterns both small and large, the Manila sewer system and countless other buildings and public works projects, mainly out of reinforced concrete. Prior to 1898, there was not a shipload of Portland cement per year that arrived to the islands. By 1913 millions of barrels had been shipped to the Philippines. What came into the Philippines as a shapeless quantity of powder, and nested stacks and piles of reinforcement, was mixed with local sand, aggregate and water and poured into a vast number of forms and shapes ranging from the intricate volutes, dentils and metopes of the new government buildings to the 8’ diameter tubular sections of the first modern sewer system in Asia. Large volumes were poured into Manila Bay’s hulking modern fortifications, and thin layers covered vast swaths of earth, from the far-reaching networks of roads and bridges, to the concrete that partially surfaced the ground of the new sanitary *barrios*—the modernized foundation of the native *bahay kubo*.⁴ Thus, the Filipino’s

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⁴ Vernacular building type made of bamboo and nipa fronds.
relationship with the material ranged from one highly symbolic to one extremely intimate. This dissertation posits that concrete was a principal actor in the American colonization of the Philippines. The pervasive use of concrete in the Philippines, I argue was central to a shift from older colonial patterns of settlement and/or raw material extraction, towards a new and soon to be globalized pattern of worldwide consumption and economic development.

Though often overlooked as a chapter central to American history, the American colonization of the Philippines has been relatively more prominent in the field of American architecture history by virtue of the fact that one of its main protagonists, Daniel Burnham, prepared a pair of grandiose master plans for the archipelago, one for the capital city of Manila and another for a brand new summer capital in the mountain province of Baguio—both of which provide elaborate proof of the United States’ long marginalized imperial history. The effect of this particular inroad into the annals of architectural history, however is that the story of American colonialism is typically embedded as a single chapter in monographs dedicated to the career of one man. Thus, while Burnham, the widely acknowledged father of American urban planning, will serve as an important figure and historical touchstone in and for this dissertation, neither his biography nor his works will serve as its central object. Rather, I treat Burnham as a subject formed within this particular historical milieu. I do not, however as this assertion might suggest, treat Burnham as a mere symptom of history. This story is not one that can be understood by even diligently tracing the contours of blandly predictable predeterminations, technological or otherwise. Burnham was and will be portrayed as an important historical agent, one who possessed particular sensitivity to the materials, techniques and conditions of his time. Towards those ends, what is most important to know about Burnham, for the purposes of this particular historical frame, is an opinion broadly shared by his most vehement critics, his most
steadfast boosters and by his most thorough biographers. That is, Burnham was not an architect as conventionally understood—barely a drawing in his actual hand survives, and those that do survive show no specific evidence of artistic talent. To the extent that his work is ever appreciated on an aesthetic register, those aspects are fully attributed to the preternaturally artistic talents of his prematurely deceased partner John Wellborn Root, or any number of the Beaux Arts trained protégés that succeeded him. Whatever the case, he was, especially in his own time, regarded first and foremost as an effective businessman, one whom Frank Lloyd Wright eulogized as an “enthusiastic promoter of great constructive enterprises... a great man,” but by no measure, “a creative architect.”6 Indeed, his impact on the profession of architecture is best characterized by his full embrace of “bigness, organization, delegation, and intense commercialism,” —a sworn devotion to “big business” that his self proclaimed rival, Louis Sullivan regarded as toxic to an architectural vocation that supposedly operated on an unassailable and autonomous plane of ‘culture.’7 Indeed, Burnham’s office is widely acknowledged as America’s first corporate architecture firm. However, even in this capacity Burnham’s historical role is both mischaracterized and underestimated. His contributions relative to the architecture (i.e. the organization) of the American corporation itself is more important to understand than the significant role he may have played in the production of American corporate architecture (i.e. corporate buildings themselves), though I treat these two architectures not only as closely related, but in fact as materially fused.

5 Architecture historians have largely evaded an examination of Burnham’s role by focusing their attention on Root’s “architectural genius.” Utilizing Root’s genius, and a deep understanding of the communicative function of beauty, however was an important aspect of Burnham’s work.
It is, of course, no stretch to think of Burnham and concrete together. Despite the fact that he is largely associated with his decidedly more ineffable qualities, namely his frankness of speech, his leadership and managerial abilities, his ability to join the imperatives of business and politics, and his power to affect an operatively vague notion of ‘progress,’ the architecture that was the end result of his rhetorical and organizational efforts are unthinkable without reinforced concrete. Reinforced concrete, however was not merely a material that he specified. By virtue of hierarchically organizing labor at various sites of production from limestone quarries, to Portland cement plants, to architecture offices, to sites of distribution, to its final and diverse sites of emplacement, the material itself played a formative role in defining the features of Burnham’s own position of leadership, and in organizing the managerial practices and corporate forms that are largely attributed to his ‘genius’ and sole authorship. Thus Burnham is just one of the components of a globally dispersed network—one that signaled the arrival of a new form of empire, stitched together by a new palette of industrial materials, and a set of associated policies and practices that together constitute what I am calling “concrete colonialism.”

Despite this intimate connection with concrete, if Burnham is coupled with any material, it is usually with the airbrushed plaster staff that fleshed out the steel skeletons of the Columbian World’s Exposition, an historic feat with which his name will forever be entwined. Burnham’s association with this temporary material, was usually invoked to identify the architect with an artless and crassly modern reproducibility, and to substantiate derogations of his work as flimsy simulations of ‘real’ architecture—“a mode of architecture” that Lewis Mumford proclaimed, “was little but veneer.”

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8 Lewis Mumford in *Sticks and Stones*, pg. 129. New York: Boni and Liveright, 1924. Pg. 124
permanent and built in whole or in large part out of reinforced concrete—a material that in many ways acted similarly to plaster—in its aforementioned effect on the distribution of labor, its plasticity, the portability of its components, and its ease of use. In one critical way however, concrete acted in an almost opposite manner. Unlike plaster staff, a material unable to withstand tests of weather exceeding a number of months, reinforced concrete rivals the strength and permanence of stone. Therefore, it mattered little that Louis Sullivan considered Burnham little more than an “expert salesman… of the materials of decay,”⁹ the architecture that he would build after the Fair endured. That is to say one of the most significant differences separating Burnham’s Dream City, from the ‘real’ cities of Manila, Chicago and Washington D.C. was merely a material one. Thus, though Burnham plays a significant role, this dissertation focuses on the particular agencies of reinforced concrete itself, a material that presents particular difficulties when subjected to historical analysis, as though it is only a single (albeit compound) material, its ubiquity makes it an already far too large subject to discuss.

Concrete Itself

Originally a logician’s term meaning “actual and solid,” the word concrete only came to refer to the building material in the mid-nineteenth century, a popular usage emerging co-incident with the industrial production of Portland cement and reinforcing steel—the two globally circulating components of reinforced concrete. While the components that went into reinforced concrete made a tremendous impact at the sites of their production, it was this ability to circulate—to move far beyond its point of origin that render its particular importance to

processes of colonization. That is to say, while reinforced concrete’s structural performance and its overall durability revolutionized building construction in the metropole, it was the transportability of its components that allowed that same revolution to happen almost simultaneously in the Europe’s and America’s tropical colonies.

While this dissertation will for the most part, treat reinforced concrete as a monolithic material, it is important to understand it as a compound material, an “aggregate body,” as the architectural historian Sigfried Giedion described it, made “from slender iron rods, cement, sand, and gravel” which could by combining “the properties of these almost worthless materials… increase their separate capacities many times over.”\(^\text{10}\) While this compound strength is well understood, what is less understood is that the component parts of this aggregate monolith are subject to their own unique sets of contingencies. This includes the often forgotten local components of concrete; namely, sand, aggregate and water. Aggregate had to be mined and crushed, sand had to be sourced and sifted, and water had to be relatively clean. Mining and/or refining each of these materials was executed by a mixture of machines and unskilled labor. The ultimate strength of concrete is not only a function of the quality of the cement and the density of the reinforcement schedule, but also a function of the properties of the sand, the quality of the water, and the hardness of the aggregate. Despite the acknowledged importance of these local components, the two industrially produced components of reinforced concrete will command the focus of this dissertation on account of the fact that it is their circulation—their movement across the globe that enables the establishment of a new colonial relationship. Portland cement, composed of globally abundant lime, was cheaply produced by means of a highly automated

\(^{10}\) Sigfried Giedion, *Building in France, Building in Iron, Building in Ferroconcrete*. Santa Monica: Getty Center for the History of Art and the Humanities, 1995 Originally published in German 1928
process, is easily quantified, simply standardized, transported without degradation of value, and conveniently packed in either barrels or bags. Reinforcing steel on the other hand, while also easily quantified, standardized and transported, was composed of less globally available raw materials, was more expensive to produce and required certain forms of specialized and often organized labor. Portland cement and reinforcing steel, however did not simply enter the global economy’s stream of consumable goods. Portland cement and reinforcing steel, unlike textiles, tea, coffee and salt, (what economists refer to as “soft” or non durable goods) were not metabolized, worn or otherwise consumed. Rather, when Portland cement was mixed with local aggregate, sand, and water—the resultant material—concrete, acted in near contradistinction to its exportable, tradable components. After passing through a brief, liquid state the admixture forms into a solid, strong, heavy and at times seemingly indestructible mass, that when reinforced with steel acquires a tensile strength utterly lacking in stone. The ‘consumption’ of Portland cement then represents a durable and ever growing transformation of the environment—both at the sites of its production and at the sites of its use. Portland cement then was not just a durable good, it was the commodification and expansion of durability itself. It furthermore expanded the industrial capacities of the colonies— India’s first industrial mills, Manila’s first large cigar factories, were made of concrete. As such, the material played an essential role in the establishment of new patterns with respect to the directions and flow of colonial trade.11

In its final and emplaced form reinforced concrete had an even greater effect in the tropical colony than it exerted in the temperate zone. For whereas its strength and fireproofing

11 Though this generalization certainly smooths over a diverse colonial history, the dominant 18th century British and French models of colonial trade began with the colonial extraction of raw goods, followed by processing and finishing in the metropole, for the purposes of both domestic consumption and global export.
ability pushed the cities of temperate metropoles to heights once considered too perilous, the material proved impervious to an even greater variety of risks endemic to colonial ventures and their tropical climates. This was especially the case in the Philippines where concrete’s resistance to fire, earthquake, rot, microbe, termite and typhoon, shored up many of the doubts surrounding this particular American colonial endeavor. This was of central importance on account of the fact that the United States’ colonization of the Philippines was often argued, either for or against, on pragmatic as opposed to ideological terms, that is to say, on the basis of its relative risks and benefits. This was doubly important on account of the fact that the reason an argument had to be staged in the first place was that in the United States the public’s opinion (in theory, if not in practice) actually mattered. It was through evidence of good works that pro-imperialists hoped to convince a voting public of the necessity of empire, not only as required by the domestic economy, but as a service rendered to their their less fortunate colonial subjects. Concrete, in other words beyond being an agent of actual, material change, largely bore the burden of representing America’s benevolent civilizing mission.

Notes on Methodology: Concrete and the Colonial Interior or An Indebtedness to and a Critique of Frederick Jackson Turner

By treating the United States as a material entity, this dissertation is deeply indebted to the work of the famed historian of the American frontier (and Burnham contemporary), Frederick Jackson Turner. Turner’s approach, influenced by his work with geologists and geographers at the University of Wisconsin, borrowed heavily from an evolutionary model in

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12 This was also the case in France, the Netherlands, Britain, and Germany, which were, by this time, like the United States, fully fledged “liberal” states. However, the United States was unique in two respects; first, its acquisition of colonies began as a liberal state, and second it was itself once a colony.
which environmental pressures played a central role in shaping not only human characteristics, but in his model, American character and American political and social institutions. Approaching the continent as matter, rather than treating the nation as an idea, allowed Turner to link, for example political voting patterns to mineral soil deposits, patterns of frontier settlement to the movement of glacial moraines, illiteracy rates to local land-use practices, and of particular relevance for this dissertation, the rise of American corporate managerialism to the successful cultivation of America’s vast and barren prairie lands. This dissertation argues along similar lines that America’s imperial expansion and the emergence of the use and production of industrially manufactured materials cannot be thought of separately. By focusing on the materials themselves, which are capable of both responding to environmental pressures and of activating environmental transformations, this dissertation tracks changes that result in an endless cascade of wide ranging and interconnected effects on various and sometimes seemingly unrelated domains.

While this history concentrates, as Turner’s does on the combined agencies of material conditions, emerging technologies, and historical actors, it also acknowledges that Turner’s methodology itself was symptomatic of an American society fixated on material progress, on the “matter-of-fact,” and on real and concrete “results.” In other words, Turner’s focus on “real conditions” was not a unique contribution. In many ways it merely echoed a popular obsession with both practical use and concrete reality, as made manifest not only in the philosophical approaches of the English radical empiricists and American pragmatists, but also in the words and deeds of an increasing number of American statesmen, whose ideas (and whose ranks) began to merge with those of industrial capitalists themselves, who used increased efficiency and measurable “progress” as a means of morally justifying many of the ills of an inherently
exploitative system. This fixation on real conditions and measurable results was, at the opening of the twentieth century not only a powerful justification for American colonial intervention, but also the source of America’s enduring and material power. That is to say, while this dissertation borrows from Turner’s chosen methodologies, I do so only to use a methodology against itself—to employ a form of immanent critique, for the purposes of exposing this methodology’s historical contingencies, internal contradictions, and negative potentials.

My interest in Turner is not, however limited to his methodological choices, but also to his claim that the United States’ colonial history did not begin with the Spanish American War—a “colonial thesis” long ignored, in part because it was never presented as such. Rather, it is spread out as fragments between his writings on his “frontier thesis” and his work on “sectionalism.” Despite its lack of codification, it is not difficult to distinguish its main tenets and salient characteristics. To begin with, Turner argued that American colonialism possesses a distinct history that stretches back to the very beginning of the Republic, and that its colonial policies were to be found, not in explicit statements arguing for the benefits of an American imperium, but rather, in Turner’s words, “hidden under the phraseology of ‘interstate migration’ and ‘territorial organization.’”13 That is to say, that while American colonial policy was not expressed in the Constitution, it was, Turner argued, a central feature of the American imperial constitution. Obstructing the conception of the United States as a colonizing power, however was the fact that what were long held as America’s founding events—the signing of the Declaration of Independence, the framing of the Constitution, and the War of 1812 were motivated by or at least framed as a casting off of the yoke of colonialism. Leaving the word “colonialism” aside,

13 Frederick Jackson Turner, “The Middle West” in The International Monthly, July-December, 1901. Pg. 795
this system, Turner argues can be described in concrete terms through America’s history of expansion, one that not only recognizes “interstate migration,” as a subterfuge for what was simply the colonial acquisition of land, but one that also acknowledges that “territorial organization” was in fact a technique of colonization. These were techniques that Turner argued, allowed American settlers to not only live on the land, but to change it, make use of it, and to render it more productive than any land yet settled in human history. In this view, a refusal to recognize the United States’ unbroken colonial history is the failure to recognize a continuous history in the novel and always rapidly evolving forms and techniques of colonial dominance. Despite Turner’s claim of the importance of America’s colonial history, the historian never turned his attention towards the archipelago, or to the effects the addition that the insular territories would have on the United States itself. He only went so far as to naturalize their annexation, as the next logical step in a long process of American expansion/colonization.14

14 The following passage from “Contributions of the West to American Democracy” is especially compelling in this regard.

“A cycle of American development has been completed. Up to the close of the War of 1812, this country was involved in the fortunes of the European state system. The first quarter of a century of our national existence was almost a continual struggle to prevent ourselves being drawn into the European wars. At the close of that era of conflict, the United States set its face toward the West. It began the settlement and improvement of the vast interior of the country. Here was the field of our colonization, here the field of our political activity. This process being completed, it is not strange that we find the United States again involved in world-politics. The revolution that occurred four years ago, when the United States struck down that ancient nation under whose auspices the New World was discovered, is hardly yet more than dimly understood. The insular wreckage of the Spanish War, Porto Rico and the Philippines, with the problems presented by the Hawaiian Islands, Cuban, the Isthmian Canal, and China, all are indications of the new direction of the ship of state, and while we thus turn our attention overseas, our concentrated industrial strength has given us a striking power against the commerce of Europe that is already producing consternation in the Old World. Having completed the conquest of the wilderness, and having consolidated our interests, we are beginning to consider the relations of democracy and empire.”

This is where I part ways with Turner—at the moment his methodology is used to construct a positivist account of American Empire; at the juncture where his material method takes a turn towards “meaning.” When Turner famously delivered his frontier thesis at the Columbian Exposition at the tender age of 32, he presented a history validated by its ends—a “useful” history told with missionary zeal. Though constructed with an empiricist methodology, it was told as an account of American success, and thus had become wholly hermeneutic, operating as a fully fledged imperial ideology. In describing American progress as shaped by material conditions, he not only described the way in which it was achieved, but proclaimed the righteousness of its imperial direction. It was of course, at the Columbian Exposition where this righteousness first crystallized as an image, where American progress became not only sensible, but spectacular, and where that progress became both the means of and justification for American expansion. The close of the frontier, and the assessment of its consequences amidst the evidence of a seemingly miraculous American productivity offered to all who viewed it, a moment of consummate clarity. After the Columbian Exposition, an American public was merely giving its consent to “Progress”—whatever the means. It was here that a positive belief in industrial materials and technologies came to be viewed as an agent in ‘civilization’s’ forward movement, which was not only legitimized, but materially equipped to move beyond what was at first believed to be its Western limit.

This was a belief expressed not only in Turner’s essays or the over-abundant content of the Exposition, but in the letters and speeches of the captains of industry, American politicians, colonial administrators and in the official colonial records themselves. Perhaps less expectedly (though it is precisely the sort of place Turner might look) one finds this new set of beliefs in “technical literature”—which included self-interested industry periodicals (such as Concrete
Age, Building Age, The Age of Cement, Engineering World, &c.) and sometimes ambitious though likewise self interested histories like The x of Cement, and The History of the Portland Cement Industry in the United States. Without exception each of these volumes was prefaced with some bombastic version of concrete or Portland cement’s imperial agency, the following example being from The Romance of Cement, published by the Edison Portland Cement Co.

To England we yield the palm for discovering the secret of cement making; and to Ancient Rome, for structural grandeur. But credit for the latest and most engrossing chapter in the Romance of Cement belongs by good right to America. Prophesy the future of industry and you will unfold the future of cement, for day by day cement is becoming more important—actually indispensable—in the progress of this nation. It is the means to ends of which only the great modern engineer, architect, and builder may dare dream. But it is more—it is the end in itself, for in its rugged durability, it is as permanent as anything we know. Every day will reveal new uses for Portland cement; every generation will leave its mark—in cement; every new generation will scan the history and add its own chapter;—that is the Eternal Romance of Cement.

More consequential than these imperious claims, however was the fact that this technical literature was filled with new methods of construction, instructions for calculation, standard coefficients, mix ratios, safety factors, in short they provided a sort of how to manual for building empire. Meanwhile American imperialists reframed this “how” as the “why” of Empire. As an attempt to escape these cycles of self-reinforcement, this dissertation offers a method of how one might assess what American Empire is, by reading the very same source materials against the imperial grain. My argument then, that the material’s very properties both motivated and shaped the policies and practices of American colonization, is in some ways a straightforward reflection of the assertions made on the behalf of concrete itself—a material that promised (if it did not deliver) what had up until that point presented itself as a contradiction—a permanent future, expediently built or, very simply, Empire made easy. Indeed, in radically reducing the amount of time it took to actualize even the most ambitious building projects,
concrete enabled those who used it to affect a semblance of, and in fact construct, a stable modernity amidst the dramatic transformations following the industrial revolution. Concrete answered both natural and manmade disasters with unparalleled strength and resistance to fire; it replaced the unsustainable use of old growth timber, the use of soft woods vulnerable to rot and termite, labor intensive brick masonry, it also provided an uncanny and cheap substitute for stone, and unlike steel (save for the kind used in reinforced concrete itself) it was economically used on both small and vast scales. Concrete, in short, enabled a progress unobstructed by the prohibitions of cost and a wide variety of risks, whether catastrophic, corrosive, political, or even moral. It was in this manner that concrete changed construction cost calculations and transformed actuarial tabulations, and by doing so played a significant role in the generation of greater pools of surplus capital.

Aided by the use of concrete, progress by all appearances, escaped the cycle of taking two steps forward, only to take one step back. In confluence with a variety of different factors, concrete allowed for the advancement of the accumulation of unprecedented quantities of material wealth.

At the turn of the century the United States was both the beneficiary and the victim of this unprecedented economic growth. Accumulation had given way to speculation and thus seemed simultaneously a promising sign of the future and an ominous portent of America’s

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15 The two that perhaps loom largest in the collective American memory— the Great Chicago Fire or San Francisco’s devastating earthquake of 1906, were answered by cities reconstructed in large part out of reinforced concrete.

16 A moral hazard is a term that comes originally from the insurance industry. Insurance companies, worried that protecting their clients from risks such as fire might encourage their clients to, for example set fire to a factory should that company’s value fall below that of value of their insured property.

17 The introduction of concrete also introduced a new and complex set of hazards, though for the most part these new dangers, which include pollution and structural damage to fragile ecosystems would, not be apparent until much later. A sudden increase in demand, in addition to the introduction of several new improvements to its process of manufacturing, led to an explosion in Portland Cement production in the United States at the close of the nineteenth, with output increasing from 85,000 barrels in 1882 to over five million barrels in 1899.
potential decline. American ‘energy,’ or alternatively surplus capital had, according to some, accumulated to dangerous and unsustainable levels, as evidenced by the devastating financial crashes of the early 1890s. The Columbian World’s Fair—a promise of a future time both stable and abundant, happened on the brink of yet another calamitous financial panic. It was thus not presented as a utopian alternative to reality as experienced outside of its gates, but rather as a pragmatic solution to the problems plaguing that outside, a pragmatic solution that I will present here as a *first instance of concrete colonialism*.

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18 These crashes and panics triggered the emergence of a body of theory and new forms of history aimed at both explaining the phenomenon of economic volatility, and proposing stabilizing solutions to it. Prominent theorists of the American economy like Brooks Adams and Charles Arthur Conant pointed towards the necessity of colonial activity as a means of stabilizing an increasingly unmanageable American economy. Colonial activity beyond the Pacific shore would allow the United States, or so the economic theorists surmised, to create conditions historically consistent with the previous period of steady and healthy economic growth—the period of the United States’ continental expansion. While Adams’s concern with post-crash economic recovery dovetailed with his jingoistic, martial enthusiasm for the Spanish-American war, Conant much more clearly insisted on a link between conquest and a stable capitalist future. In July of 1901 Conant was sent by then Secretary of War Elihu Root in July of 1901 to investigate financial conditions on the islands and to prepare a reform plan incorporating a new monetary and banking system for the colony. Conant’s deployment to the Philippines was in large part due to an article he published in the *North American Review*, barely a month after the conclusion of the Spanish American War. Conant opened his article, titled “The Economic Basis of Imperialism” with a sort of exhortation to Anglo-Saxon America, which he argued had failed to follow the “instinctive tendency” of the Anglo-Saxon race, namely to do as the English had and “command the empire of the sea,” a path “marked out for them (but) not yet traversed because there has been so much to do at home.” With the definitive military victory, Conant wrote “the importance of naval power as the advance agent of commercial supremacy… flashed upon the mind of the country.” This happened, in Conant’s view, with a ‘magical’ timeliness, presenting itself as a resolution to a crisis in the United States’ economic development. The crisis, a phenomenon that Conant referred to as “the congestion of capital,” (a vitalist characterization of what is more often referred to as the crisis of surplus capital) was, Conant believed, the fundamental source of both social and political unrest in the developed and capitalist nations. This “congestion,” Conant proposes, can be treated in three distinct ways, for which he offers the broadest of outlines. The first is the “socialistic solution of the abandonment of saving,” (i.e. socialism). The second is a proto-Keynesian generation of capital-absorbing demands at home, a solution not tenable in the United States’ current economic state because the capital to be absorbed was simply too great in proportion to any demands that might be generated. The third, which he presents as the “natural” course of the Anglo-Saxon race is “the equipment of new countries with the means of production and exchange,” which would be the new “economic basis of ‘imperialism.’”
Reorganization: A Central and Recurring Theme

Besides investigating the effects of cement and reinforced concrete at the sites of their emplacement, this dissertation also examines the role it played in the reorganization of American society and government more broadly, aiming to add a new material dimension to arguments put forth in Alan Trachtenberg’s *The Incorporation of America* and Martin J. Sklar’s *The Corporate Reconstruction of American Capitalism*. However, in an attempt to remain close to my objects I use the term favored by Burnham—“reorganization.” The term “reorganization” (specifically corporate reorganization) is essentially interchangeable with Sklar’s “reconstruction,” or Trachtenberg’s “incorporation,” or with the term “restructuring” (a familiar term in corporate parlance), though unlike Trachtenberg or Sklar, who treat “reconstruction” or “incorporation” in the first instance, and thus as a historically bracketed and in some way completed process, I treat reorganization as a constantly renewable set of practices employed in order to preserve a profit generating institution (corporate, colonial, governmental or otherwise) in perpetuity. While reorganization was a practice that finds its origins in the American corporation, I do not treat it as a term exclusive to corporate managerial practice. Reorganization, I argue is central to understanding a topological shift to imperial and colonial practice—from a finite process of geographical expansion (which seeks out to acquire more and more territory) to an unlimited and infinitely expansive process of organizing and reorganizing an *inexhaustible territorial interior*.

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19 At any point in time, the structure of the corporation is the result of an evolutionary process that reflects strategic investment decisions to serve particular markets, engage in particular activities, and produce in particular locations. Restructuring occurs when the corporation is not willing or able to utilize the capabilities and assets that are the legacy of past decisions. Under adverse economic conditions that cut across industrial sectors or firms within a sector, large numbers of companies in the same nation or region may engage in restructuring at the same time. Such restructuring can have a negative impact on national or regional employment, especially when restructuring involves large-scale downsizing or the closing or locational shift of a labor-intensive facility. Thus, restructuring can have profound impacts on the quality and quantity of jobs available in the economy.
To a certain extent the germ of this idea, i.e. what I refer to here as the “inexhaustible interior” is to be found in Turner’s work, specifically in his work on America’s geographic “sections.” As a conceptual frame the section was invoked in opposition to the geopolitical division of (particularly Western states), which were determined by systems of cartographic abstraction. Sections, as opposed to states, were environmentally, or ecologically determined. Each section developed as a part of an American unity in which the properties of each regional peculiarity played its part. While territory can never be re-conquered (by the same power) in the strictly geometric/ cartographic sense, its resources can be reorganized in order to render that territory more productive, or more suitable to present needs. That is to say while the close of the frontier may have forced into existence, the geographically distinct form of insular American

20 Turner introduced the section thusly:
Sectionalism in American history has been so commonly conceived of by historians as the struggle between North and South over slavery that the much more complicated sectionalism, involving all the various geographic provinces of the United States and the regions within them and exhibiting itself in economic, political, and cultural fields, has been neglected. But… it is fundamental to an understanding of America… As the years go on and the United States becomes a settled nation, regional geography is certain to demand at least the same degree of attention here as in Europe (where for example Alexander von Humboldt was a pioneer in linking ecological factors to economic, political and social conditions). The United States being practically as large as all of Europe, it must be thought of in continental, and not merely in national terms. Our sections constitute the American analogue of European nations. In their normal relations with each other, economically, politically, and socially, we find startling resemblances to the international processes of European history except for the appeal to arms (here Turner seems to all too quickly forget the recent conclusion Civil War). But these phenomena have been concealed by the disproportionate attention to federal legislation, to state legislation, and to political parties, without digging beneath the surface.

21 Following the revolution Thomas Jefferson was assigned the task of devising how the Northwest Territory would be divided. He proposed that the region be divided into states having two degrees of latitude and four degrees of longitude, wherever possible. While Congress did not adopt Jefferson’s recommendation for these borders for the Northwest Territory, it did apply the concept to the creation of other state lines. The prairie lines of Kansas, Nebraska, South Dakota and North Dakota all have three degrees of latitude, while the Rocky Mountain states of Colorado, Wyoming and Montana each have four degrees of latitude. The Western States of Washington, Oregon, Colorado, Wyoming, and North Dakota and South Dakota have almost exactly seven degrees of longitude. See Mark Stein, How the States Got Their Shapes. New York: Harper Collins, 2008.
colonialism, it was the development of the American interior section that produced a range of constantly evolving colonial policies and practices that would be applied to the United States’ continental and insular interiors alike.\textsuperscript{22} In short, while the frontier was a closed historical chapter—a chapter in fact ‘destined’ for closure\textsuperscript{23}—the history of the section may help us to understand a shift in imperial practice that on account of the fact that it was based on agile techniques of reorganization, introduced a \textit{colonialism of permanent expansion}.\textsuperscript{24} Under this rubric the line of the frontier should be understood not as one that broke up along the nation’s Western edge, but rather as a line whose involution revealed its innately fractal geometry.

This history, in other words does not treat the annexation of the Philippines as it was sometimes regarded by anti-imperialists at the time, as a scandalous and singular event. Rather, this history is one that traces the assembly of a set of colonial practices that find their origins in the reorganization of what was assumed to be already “settled” land. This dissertation is thus an attempt to trace heterogeneous, ad hoc, and constantly shifting colonial methods—methods that allow one to view, within a single epistemic frame the American steel worker and the native Filipino laborer—as subject to the very same practices of reorganization. The object of this dissertation is thus not the United States or the Philippines as such, but rather the continuously

\textsuperscript{22} As a conceptual frame the section was invoked in opposition to the artificial geopolitical division of states (particularly Western states), see footnote above.

\textsuperscript{23} This closure eventually, and lamentably (for Turner) passed into a sort of dangerous “spirit realm” of “meaning.” The close of the frontier presented a problem to Turner, who championed its forward movement as the origin of America’s “vital democracy.” Following the frontier’s definitive close, Turner wondered, if the American experience of the West was the basis of its democratic ideals, then what might happen to those ideals “under conditions so radically unlike those in the days of their origin?” The free lands, he noted with no shortage of melancholy, “are gone (and), the material forces that gave vitality to Western democracy are passing away.” Characterizing this new stage in America’s history he noted that “it is to the realm of the spirit, to the domain of ideals and legislation, that we must look for Western influence upon democracy in our own days.” An American ideology forged The Philippines then provided a fresh primitive condition breathe new life into its vital democracy.

\textsuperscript{24} Following Burnham, I will use the term reorganization.
organized and reorganized relationships between and within them. Indeed, as this dissertation argues, the colonial experiments conducted in the Philippines played a central role in structuring the United States’ relationship to the rest of the world—a complex and constantly renegotiated relationship between America’s expanding interior and its increasingly fictional exterior. I do this to underscore the critical role that the colonization of the Philippines and other insular territories played in the formation of this twisted American topos—to present it as central to one’s understanding of the United States, instead of treating it as a failed experiment, an aberration from the general patterns of American history, and thus an all too easily marginalized aspect of that history. What I aim to reveal by describing concrete colonialism is how the colonization of the Philippines is both consistent with a pattern of American growth, and set the stage for its future neocolonial engagements with (what I argue will only be nominally) sovereign nations. American colonization, in other words was not an issue of whether the United States would maintain or relinquish formal control over the archipelago or any of its other colonial territories. That is to say, this dissertation is not so much about the beginning and an end of a formal colonial status, but rather attempts to describe how the United States gradually shaped the institution of national sovereignty (especially post-colonial national sovereignty), to its advantage, which in the Philippines, by some measures is revealed to be little more than legal fiction. Such is the nature of concrete colonialism, it exists and persists despite rhetorical declarations that a colonial status has ended. By reading colonialism through its concreteness, we may be able to see beyond rhetorical distortions and murky legal territories that are today labelled as the characteristics of a “liberal” economy, “free market” capitalism, or economic development. The colonial techniques developed during American colonial rule in the Philippines are thus not treated as anomalous, but rather as broadly representative of the
infrastructures and patterns of American foreign policy, and a general attitude towards foreign, especially ‘developing’ nations.

Certainly, to a general audience, the American colonization of the Philippines is still a relatively obscure episode, or at most a minor motif. At the time, however, the question over whether to annex the Philippines was a matter of great controversy, of Constitutional consequence. Was colonization, United States Senators deliberated, not anathema to the foundational principle of American democracy, that of self-determination? Pro-imperialists won by the slimmest of margins, and the Treaty of Paris, which included the provision for the annexation of the islands was approved by a single vote. Following the legal acquisition of the archipelago, the debate only intensified, as news of both mounting casualties and atrocities committed against the native population during the effort to “pacify” them reached domestic shores. When the Philippine “insurgency” was declared over, anti-imperialists, fearing what might happen in a ‘political vacuum’ and accepting annexation as a fait accompli were drawn into a debate over what to do with the archipelago and its peoples. William Jennings Bryan, for example, perhaps one of the most active and vocal members of the American Anti-Imperialists League appealed for the establishment of a “stable form of government” in the islands, followed by a policy that would “protect the Philippines from outside interference while they work out their own destiny,” a policy that, as pro-Imperial spokesmen pointed out was the very same

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25 By the terms of the treaty Spain relinquished its sovereignty over Cuba; it ceded outright both Puerto Rico and Guam; and for twenty million dollars, it “sold” the Philippines to the United States. The American government took somewhat different legal approaches to each of its new acquisitions. Despite the desire of many imperialists, it did not annex Cuba directly but instead extended over it a form of semi-sovereignty, first ruling it by military force, then through a form of economic colonialism following the transfer of power to a new government under American backed President Tomás Estrada Palma. To Puerto Rico and Guam, the United States granted a liminal status still operative today. And in the Philippines, the source of the greatest geopolitical difficulty, the U.S. established itself as an ultimate sovereign power.
substance of their own program. In fact, most of the “Anti-Imperialists” favored the overseas expansion of the “American economic system,” which in concrete terms meant the expansion of its markets, its system of labor and access to foreign material resources. In short, what many “anti imperialists” were endorsing was the very form of colonial policy that this dissertation examines. The belief that the expansion of an American system was not a colonial enterprise is how someone like Andrew Carnegie, for example, could adamantly claim to be Anti-Imperialist even as his corporation profited from and played a central role in the construction of what is now recognizable as global American Empire. Thus, this dissertation attempts to describe what American Empire actually is, through describing the material realities and actions of the players involved, whether or not they considered themselves, “anti-imperialists” or “imperialists.”

More Notes on Methodology and Architecture History

The ambition of this project is on the one hand to open up the sometimes cloistered field of architectural history to a wider readership, while introducing a more contextualized history to the discipline itself. That said, it must be acknowledged that a focus on material is a long established convention of architecture history, and though this dissertation takes cues from different (that is to say non-architectural) theoretical sources, it is not totally unsympathetic with the long catalog of architecture histories that treat material as a central actor. This is a tradition that can be traced at least as far back as Ruskin’s *Stones of Venice* (1850), Gottfried Semper’s *Der Stil* (1860) and Banister Fletcher’s *The Influence of Material on Architecture* (1897). This is a tradition reconsidered and revived following the introduction and canonization of architecture

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built with industrially produced materials, a dispersed movement within the field of architecture history that produced Sigfried Giedion’s *Bauen in Frankreich, Eisen, Eisenbeton* (1928), Peter Collins’ *Concrete* (1959), and Reyner Banham’s *Concrete Atlantis* (1986), to name only a few of the most significant examples. Collectively these histories advocated the concept that materials were a central determinant for architectural form. In fact, American architectural historians from Montgomery Schuyler and Lewis Mumford to Carl Condit have been even more attuned than their European counterparts to the interaction between industry and industrial materials and the birth of a modern architectural tradition. However, while all of these historians have acknowledged the central role of material and technologies in the production of architecture, architecture generally constitutes the *end* of their investigations. This was certainly the case with Schuyler and Mumford who not only identified the Beaux Arts style as both a mindless reflection and a soulless reaction to the “imperial” forces of industrialization, but also aimed to resolve historical conflict by championing the “organic” architecture of Louis Sullivan and Frank Lloyd Wright— an architecture that they argued was, by virtue of its claimed sponsorship of craft traditions was inherently more “democratic.” This dissertation makes no such endorsements. Indeed, it recognizes that by virtue of the fact that both Sullivan and Wright made abundant use of industrial materials, in addition to the fact that they were themselves involved in various capacities in the construction of a global corporate empire as broadly understood, they too are considered to be a part of the very same network.27

Another field to which this dissertation aims to make a contribution is colonial history and post-colonial studies, and especially to the rapidly growing scholarship addressing American

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27 Sullivan designing, for example the Transportation Building at the Columbian World’s Fair and Wright designing (though quite late in his career), the Plan for Greater Baghdad, 1957-8.
Empire. Critical and essential work has already been written by Benedict Anderson, Vincente Rafael, Michael Salman, Warwick Anderson, Emily Rosenberg, Paul Kramer and Christopher Capozzola, all of whom address the American Empire from astonishingly different points of view ranging from the history of medicine and hygiene, to the transnational history of anarchist and anarcho syndicalist movements, to American Empire’s particularly complex racial history, to the formative role the colonization of the Philippines played in the history of American dollar diplomacy. While this dissertation borrows and learns from each of these histories, it finds its object on or in different territory altogether, by examining the Philippines and its transformation under the American colonial regime as a material process. Thus, while this dissertation uncovers certain under-analyzed aspects of American colonial rule in the Philippines, other important aspects, objects, and subjects including the stories of the Federalistas, Nacionalistas, Illustrados, Pensionados, prisoners, revolutionaries, Pulahanes, ‘ladrones,’ union leaders, folklorists, the leaders of the short lived Propaganda movement, Filipino members of the U.S. military and American para-militaries, not to mention the culturally diverse inhabitants of the archipelago who would resist the national moniker of “Filipino,” in other words—the full panoply of varied subjects that inhabit the archipelago, tend to occasionally fall out of focus. Though they may at times appear as figures in the footnotes, or lightly woven into the fabric of the argument, I rely heavily on those already written histories, and even more so on histories yet to be written to give the careful attention to these subjects that they need and deserve.

Beyond contributing to the discourse on architecture history more generally, this dissertation also aims to contribute to the growing amount of scholarship dedicated specifically to colonial and post colonial studies within the field of architecture history. Despite this growing scholarship, a limited number of works investigating the American colonial period and its
postcolonial ‘aftermath’ in the Philippines has yet to be done in this field.\textsuperscript{28} That said, historians of American modernism have addressed the broader reach of American empire, most notably Timothy Hyde, who closely examines the American colonial project as articulated in Puerto Rico, in \textit{Constitutional Modernism}, and in the work of OfficeUS, which offers a varied though purposefully indexical “repository” of American architecture built across the globe. Of particular relevance to this dissertation is the monumental and exhaustive research of Gerard Lico, whose \textit{Arkitekturang Filipino}, unearthed a vast amount of architectural material, including an immense number of examples built during the American colonial period that had theretofore never seen the light of day. As a textbook that identifies architectural production within the frame of the nation state it is exceptional in that it manages to avoid the common trope of constructing an epic conception of a Filipino architectural ‘tradition.’ As such, it will play an important role in laying the groundwork for future research into this topic, as it has served in this capacity for this dissertation.

Beyond these most recent efforts, scholarship addressing both post-colonial and colonial architecture histories has been dominated, as it has been in other disciplines, by works on South Asia and to a lesser extent on former French colonies. This work, including that of Patricia Morton, Mark Crinson, Sibel Bozdogan, Gwendolyn Wright, Lawrence J. Vale, Brian McLaren and Mia Fuller (who broaden the geographical scope by investigating Italy’s colonial project in Libya) primarily addresses two predominant themes—the first being representation, and the other institution. In the case of the former, these histories, which largely draw upon the work of

\textsuperscript{28}To be sure, Burnham’s project has been addressed outside of this discursive rubric, not only by Thomas Hines, but also by Mario Manieri-Elia who briefly addressed Burnham’s Philippine plans in his long essay “Toward an ‘Imperial City,’” in which Burnham’s work is used as a convenient example in service of a broader ideological critique of American capitalism. See Mario Manieri-Elia in \textit{The American City: From the Civil War to the New Deal}. Cambridge: MIT Press, 1983.
Edward Said, tend to approach only the most symbolic programs (capitol buildings, triumphal arches, city halls), a focus that serves to confirm a well known axis of power-display-knowledge. The latter theme has produced relatively more substantive criticisms as they are arguments that on the one hand open up histories beyond canonical programs by investigating for example hospitals, housing, and public works projects; and on the other, place focus on colonial subjects otherwise too easily ignored. While fresh in terms of the content introduced, these histories, usually offer themselves up as flat contributions to a growing though homogenizing body of institutional critique, only rarely extending beyond the insights first described by Michel Foucault’s early work. The issue, of course is not whether questions of representation or institution still matter, as they certainly do. However, in retelling the same story over and over again—albeit with an ever expanding list of examples, we may lose our ability to identify, describe, analyze, and ultimately contest the increasingly flexible techniques and often informal arrangements of power.

Among those who move beyond these two themes are Zeynep Çelik, who by invoking Frantz Fanon’s description of the “colonized world (as) a world divided into two,” constructed an argument around this half permanent/ half improvised world as structural to colonialism. A more self-conscious and ambitious departure from colonial architecture as a system of representation is Arindam Dutta’s work, which has been exceptional in this regard. Rather than treating architectural style as an outcome of certain shifts in power (in which the shift towards modernism, for example is treated as an indication of a move from colonial to postcolonial forms of power) Dutta articulates new contingent relationships between legal, corporate, managerial and educational institutions, an analysis that breaks down received divisions between colonial
and postcolonial forms of power, while undermining the superficial distinctions made in ‘revolutionary wars’ waged over stylistic choices.

In its focus on a single material and its relationship to a political system this dissertation owes much to Timothy Mitchell, especially to his book *Carbon Democracy*, in which he treats carbon as a material both transformed and transforming, and as one that establishes connections and builds alliances “…that do not respect any divide between material and idea, economic and political, natural and social, human and nonhuman, or violence and representation.”

I treat concrete in a similar way, but by virtue of its differences, it acts in an almost obverse manner to carbon (in the form of both coal and petroleum). To begin with, unlike carbon based resources, the raw materials that go into the production of concrete (save for the significant amount of carbon itself) are diverse and globally abundant. Even countries considered resource poor often possess materials necessary to manufacture concrete. Thus the most important stories to tell do not center around control over its extraction, sale, and distribution, but around its agency to affect change in developmentally ‘backwards’ colonial territories. In short it does not fuel, it builds; it is not so directly synonymous with power, but it has the power to modify certain economic and environmental conditions. That is to say, while carbon is the ideal material through which to study the relationship between, on the one hand the emergence of labor in Britain, and on the other, the still developing conflicts within and between Britain, the United States and the Middle East, concrete allows one to tell the story of a broader spectrum of colonial and post-colonial territories, especially those too easily ignored nations that serve the global economy primarily as massive reserves of cheap labor.

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As may have already become obvious, this dissertation combines a theory of relatively recent formulation, namely Actor Network Theory (henceforth ANT) with certain aspects of historical materialism (a methodology to which ANT is at times, ostensibly opposed). This is done to, on the one hand counter Turner’s “explanations” of America’s positive “results,” with descriptions of concrete’s “rhizomatic” global reach, and on the other as a means of breaking free from the hermeneutic patterns of architectural history. This methodological choice is not an innocent one, as ANT’s theoretical antecedents (from which it openly borrows) are to be found in the same historical milieu that produced Turner and the American pragmatists. That is to say, ANT’s commitment to ‘reality,’ was during the so-called Progressive Era, both a self-conscious process and a frankly expressed goal. We see during that time a similar breaking down of disciplinary boundaries and the same attack on the dusty ways of the academy in favor of more engaged forms of production and education. By holding up a mirror to ANT’s historical origins, this dissertation leaves open the possibility that as a method ANT is guilty of a similar self-reinforcement. By using ANT to analyze the same history that shaped its methodological precedents and by testing the antagonisms stated by its practitioners (most notably Bruno Latour) it is my aim to produce new insights into the potentials and limits inherent to ANT. In fact, one of the disciplines to which ANT is ostensibly opposed is post-colonial studies, a discipline that as aforementioned shaped many of the questions that motivate this dissertation. However, in using ANT, I too am attempting to break from a model that renders history as a series of crises/ contradictions (as opposed to networks, assemblages and only apparent “controversies”), a model that persists in post-colonial theory—an outstanding inheritor of Marxian discourse. I do this, however only in an attempt to further add to the intentions of post-colonial studies, which aims to analyze the robust relationships of power that persist as the ‘legacy’ of colonization.
However, in focusing on a set of techniques that originate in the colonial period and continue indefinitely into the ‘postcolonial’ era, my intention (per the intentions of ANT in general) is to erode the stability of these historical categorizations, as essentially (though not inconsequentially) formal. My use of ANT then, is in no way at odds with the question posed by Gayatri Spivak’s essay, “Can the Subaltern Speak?” to which the answer remains a fraught “no.” My rejoinder to this question is an attempt to address the problem by offering a description of some of the many ways of how the subaltern is assembled. Thus, this dissertation does not necessarily concern itself with whether resistance is possible but, rather, with what mechanisms have made legible resistance impossible. In order to do this, this dissertation turns towards a theory capable of chasing the agility and flexibility of power, which in its own interest interminably develops as a relentless process of re-formation and re-organization.

That said this dissertation is interested in something called capitalism and its relationship to something called colonialism. The term capitalism is used as shorthand when referring to complex networks of human and non-human actors, and it is common to make claims that capitalism itself acts, or explains certain historical conditions. This dissertation takes the position that capitalism does not itself explain anything, rather it is a set of constantly evolving set of conditions that itself has to be explained. Marx himself did not describe the mill as the outcome of capitalism, he describes the mill as productive of a specific type of capitalism. The same argument applies to what we call “colonialism”—broadly defined as a system in which one population exerts control over another population. Despite the persistence of various systems that describe this very condition, it is generally acknowledged that we are living in a postcolonial era, which as a categorization posits that what we are dealing with is the ‘legacy’ of colonialism, rather than a form of colonialism, and a part of a long and continuous colonial history. What this
categorization takes for granted is the fact that colonialism was never assembled in quite the same way, and has always involved informal, extra-statist and highly flexible techniques of domination.

**Organization of Chapters**

On account of the fact that Portland cement organizes and is organized in different ways at the sites of its production and the varied sites of its emplacement, this dissertation is divided into two distinct parts; namely “Master Plans,” and “The Master Material.” “Master Plans” addresses the history of American urban planning, the founding of which is usually attributed to Daniel Burnham. The first chapter opens with the Manila Plan itself—elaborate and largely misunderstood evidence of the United States’ long suppressed imperial past. It is perhaps too obvious a place to begin, and problematically so, as most existing scholarship addressing Burnham’s Philippine work tends to almost exclusively focus on the plan, a tendency that has reinforced its status as either potent and fixed proof of American ‘benevolence’ towards the Philippines, or as an aesthetic strategy to ameliorate the American colonial contradiction/aberration. Under closer examination the Manila Plan reveals something quite different, namely the plain disclosure of a major and under-studied reorganization of the American government—one that took place not only the colony, but in the United States as well. This self conscious expression of the new ideological underpinnings of American Empire are presented in the plan as a rejection of certain foundational and thought to be sacred principles of American governance, most notably the separation of powers. Thus, the first chapter opens by describing the plan as a positive representation of this transformation, from a government founded on the separation of powers to one characterized by the augmentation of federal power, a shift that mirrored the
centralization and growing importance of American corporate power. The plan for Manila is thus not only key evidence of American imperialism, but of the corporate origins of American Empire, or conversely the imperial origins of the American corporation. While this expression of centralization, or “unity” as Burnham referred to it, was also reflected in Burnham’s increasingly formulaic proposals for Cleveland, San Francisco and Chicago (both 1893 and 1909), it was most significantly manifest in the Manila plan.

While the above addresses the centerpiece of the Manila Plan through a more or less conventional formal reading, a larger portion of this first chapter is devoted to a mostly ignored and mostly informal aspect of the plan—Burnham’s accommodation of what he called “semipublic” institutions—a category that included both museums and libraries, and perhaps more unexpectedly, social clubs, polo fields, and golf courses, which end up occupying not only a surprising portion of the plan’s real estate, but also its most desirable real estate. My address of the semipublic institution will be used as a means of reintroducing the practices and objectives of American business to a rhetorical framework often read as representing an opposition to those very purposes.

This first chapter then flashes back to the Columbian Exposition, an event that I argue is not only indispensable to understanding Burnham’s Manila, but in many ways acted as its blueprint. As such, the bulk of the opening chapter is dedicated to an in depth analysis of the planning and execution of the Columbian Exposition, which I treat as an American colony in the first instance, and as the origin of a number of what I am calling “colonial techniques,” a set of strategies that Burnham submitted to history as the “Lessons of the Fair.” Most immediately what Manila and the Fair have in common is the extent to which each was built. It is the significant fulfillment of the Manila plan that Burnham historian Thomas Hines argues is what
sets the Manila Plan apart as the City Beautiful movement’s “greatest architectural success.” This was praise that Hines characterized as “ironic”—on account of the fact that the city was built “not on American, but on foreign colonial soil.” The self imposed charge of irony, however was miscalculated, as Hines himself would point out, it was “under colonial circumstances,” (and I would argue only under colonial circumstances), that Burnham’s plan, “unhampered… by democratic processes and unharassed… by local opposition,” could proceed “…as quickly and surely as Burnham could ever hope for.” Despite this observation Hines chose to attribute the plan’s success to the efficacy, leadership and dedicated attention of Burnham’s hand picked successor, William Parsons, an attribution that overlooked the fact that certain conditions enjoyed under the colonial regime were not altogether unique to Burnham’s work in the Philippines. In fact, they were conditions remarkably similar to those under which Burnham accomplished the Columbian Exposition. These were conditions that Burnham closely and carefully designed. Thus, to understand what happened in Manila; why it is considered to be one of the most successful examples of City Beautiful Planning, to give flesh to the commonplace charge of the Fair’s “Imperialism,” and to understand why it was impossible to not only plan but build so much in both locations, the bulk of chapter one on “Master Plans” is dedicated to the Fair—and to Burnham’s crafting of a colonial condition. The Columbian Exposition is thus treated much as Burnham treated it, as an imperial germ—in his words, a “starting point” or as his hand picked successor William Parsons described it, as “an object lesson in accomplished idealism.” Inasmuch as Burnham did accomplish an “ideal,” it is instructive to understand exactly the lengths that Burnham went to in order to achieve it. It is the execution of Burnham’s
Dream City then, rather than its contents or even its aesthetics that this dissertation examines with the closest scrutiny. Thus, I will be looking at the fair not as an ideal city, but as a real thing, made of real materials, built with real labor and under real constraints. This chapter then returns to the unquestioned ‘reality’ of Manila, as a study of “lessons learned,” from the Fair, before concluding with the plan of an American colonial “generic town,” an infrastructural plan that described the spatial layout of American colonial policy as one driven not by lofty ideological goals, but by material conditions.

This dissertation then turns away from master plans and the practice of planning, and more properly towards the agency of concrete itself, which is presented in Part II of this dissertation as American colonialism’s “master material.” Part II, on account of a difference between the types of evidence examined, is both methodologically and organizationally distinct from Part I. The introduction to Part II, “The Master Material” will introduce the material itself, both as the sum of its components and as it was globally emplaced. Following this more general address, Part II is broken into six short chapters, each corresponding to six different qualities of concrete, namely stability, salubrity, scalability, plasticity, reproducibility, and strength. This organization enables an engagement with concrete on several different conceptual registers, while also allowing me to shift between a heterogeneous set of programs that are nevertheless linked by the use of a single material. The organization of the chapters is admittedly a heuristic, as concrete is, for example just as clean as it is in the chapter dedicated to salubrity as it is in the chapter devoted to reproducibility. That is to say, despite this apparent division of qualities, concrete demonstrates all of the qualities addressed, all of the time. However, the chapters are divided in order to highlight how a specific quality was invoked with respect to various distinct
imperatives of the American colonial regime—a heterogeneous set of strategies that are nevertheless linked by the omnipresence of a single material.

The first chapter, on stability examines the history of concrete foundations and sanitary infrastructures— inventions that made Chicago’s wet and shifting earth the unlikely birthplace of the American skyscraper. More to the point, this chapter argues that concrete foundations were a solution to a technical problem that was translated into a technique for colonization—a material means for transforming much of the world into a universal condition. Chapter two on stability, is organized around the claim that concrete was an essential tool in the eradication of disease. This claim was among other things an alibi for the segregation of Manila along the closely mapped categories of race and class. This chapter also provides the clearest example of how Burnham’s “plan” did not, as having a plan might suggest, give structure to the colonial project, but in fact offered a framework that facilitated a colonial strategy that was extremely flexible, largely ad hoc, and able to address various problems and conditions as they emerged.

Chapters three, four, and five are reevaluations of the aesthetic categories of the sublime and the beautiful, which are looked at here in a specifically colonial context. Chapter three, on scalability examines a set of infrastructural projects through the lens of the aesthetic category of the sublime, though the sublime will not be treated here as an absolute category, but rather, following David Nye’s description of an “American Technological Sublime,” as a “contingent category within social and political systems.” Thus here I will be addressing the “American colonial sublime,” or the sublime as it is encountered as a part of an imported colonial system. That is to say, this chapter analyzes how supposedly universal technologies affect social and cultural settings wholly other to the ones in which they were developed. Chapter four, on plasticity and chapter five on reproducibility extend a focus on questions of aesthetics (this time
centering around the category of the beautiful) by closely examining ‘native’ translations of the Beaux Arts tradition. This chapter also examines the central institutional role of the Office of the Consulting Architect, an office that because of Burnham’s influence wielded political powers greater than the title itself suggests. The sixth chapter on strength, which examines American military installations in the Philippines, is not about reinforced concrete’s strength per se, but is rather about the limitations of its strength. By examining the doomed history of America’s military defense installations in Manila Bay, I present the military build up of the Philippines as the beginning of transformation of American territory from one largely thought of as a contiguous land mass to one that should rather be seen as a globally distributed militarized archipelago. Finally, the conclusion is dedicated to a short address of the reconstruction of Manila in the aftermath of World War II, which I present as the only apparent advent of a different set of colonial strategies of informal, indirect, or “soft power,” but which reveal themselves to be the most lasting outcomes of a durable concrete colonialism.
Chapter 1: PLAN QUEEN CITY FOR THE FAR EAST

“Uncle Sam Commissions Architect Burnham of Chicago to Make Manila the Gem of the Orient”

Manila is to be made not only the queen of the Philippine Islands, from an architectural and artistic standpoint, but the purest gem in the constellation of cities in the far eastern Pacific Ocean. The government of the United States has decided that that ancient Spanish city is to have administrative buildings in accordance with its importance both present and future, and while constructing the capital it will seize the opportunity to rebuild the entire city… Every building erected, every change made, will be with the object of producing a perfect and harmonious whole.

It is seldom that such an opportunity comes to make a “city beautiful,” but the opportunity lies waiting in the orient, and the government proposes to take advantage of it. ¹

On September 15 of 1904, The Chicago Tribune announced that its own native son, Daniel Burnham, was hired by the United States government to prepare designs for not one, but two capital cities for its newly retained colony in the Far East. The first would be a renovation of the centuries old city of Manila and the second would be for a brand new summer capital in the cool mountain highlands of Luzon. Revealingly, the article failed to make any mention of an American colony, choosing instead to present Burnham’s work as a rare opportunity to brighten some unfortunate corner of a dark and distant world. The significance, however was not lost on Americans. Expansionists hoped that the prominent voices behind America’s short lived Anti-Imperialist movement might finally be convinced of the justness and economic necessity of imperial expansion if it was presented in the form of a gloriously rendered image of an American

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Burnham had, after all been wildly successful in shoring up American confidence in its future by summoning a spectacular and fully functioning dream city, seemingly out of thin air. This city dazzled the collective American imagination even despite, or perhaps because of the fact that it appeared in the exact same year that the United States experienced both its worst economic crisis and one of its most violent labor uprisings to date, demonstrating that “progress” was not only possible within moments of crisis, but was a potential means of overcoming it. Burnham faced, however even graver circumstances in the Philippines, objections against the United States’ annexation of the archipelago ranged from more ‘principled’ warnings of America’s moral ruin, to legal quandaries of consequence to the Constitution, to jingoistic panics over racial contamination, to pragmatic fears over the dilution of the nation’s industrial energies and resources. Still, it was hoped that the prospect of real, material progress and aid for a nation not only racked by poverty but now suffering from the after effects of a bloody and protracted war, might finally silence the voices that doubted America’s imperial direction.

Burnham’s call to the Philippines was the direct order of William H. Taft, who had himself just returned from the archipelago, having vacated his position as the islands’ first Civil Governor General, to take up his position as Theodore Roosevelt’s new Secretary of War.

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2 Objections against the United States’ annexation of the Philippines ranged from more ‘principled’ warnings of America’s moral ruin, to legal worries over constitutional scandal, to those more explicitly self-serving such as the fear of racial pollution or the dilution of the nation’s industrial energies.

3 Here I am not referring to the more well known Spanish American War, which left the Philippines relatively unscathed, but rather to the Philippine American War (which until recently was referred to as the Philippine ‘insurrection’) that immediately followed. This war resulted in somewhere between 16,000-26,000 military casualties (American and Philippine Republic forces combined) and 200,000-250,000 civilian deaths.

4 Emilio Aguinaldo, the dictatorial leader of the First Philippine Republic was captured in his headquarters of Palanan, Isabela on March 23, 1901. Guerilla warfare—both associated with the First Philippine Republic and unassociated continued throughout the archipelago. Without a clear end in sight the symbolic day of July 4, 1902 was arbitrarily selected as the ‘end’ of the Philippine American War. Following this declaration crimes against the state were reclassified as crimes against society, as
According to the *Tribune*, the idea for “rehabilitating Manila” first came to Taft in 1901, in his first year in the Philippines. At the time, the Senate Park Commission, headed by Burnham was taking a tour of Europe’s great manor homes, gardens and urban landscapes, gathering ideas for their renovation of the American capital, which the Commission aimed to reconstruct according to L’Enfant’s strict formalism, then profaned and watered down over the years by an American romance of the Picturesque and the random incursion of rail tracks, stations and yards.\(^5\)

According to the *Tribune*, it was then that Taft had hatched a scheme to convince Daniel Burnham, Charles McKim and Frederick Law Olmsted to return by way of the Philippines in order to study the present conditions and future possibilities in Manila. Though nothing ever came of the suggestion (the ‘side trip’ would have more than doubled the distance the party would have had to travel), Taft kept his scheme in mind, and upon his return to the United States in 1904, he resurrected it, hiring, as the *Tribune* reported, one of the men he attempted to intercept only two years prior.

In December of 1904, Burnham would finally first set foot in the Philippines. He brought along with him his junior partner, the Beaux Arts trained Pierce Anderson. Together the two men spent a total of six weeks in the Philippines, splitting their time between touring Manila and surveying the site of the new summer capital in Baguio, 250 kilometers north of Manila.\(^6\) Every

\(^5\) When the Senate Park Commission was formed, the B&P Railroad terminal, marked by a Victorian-style tower occupied the current site of the National Gallery of Art, while the B&O railroad tracks, ran straight through the mall. The Washington Mall itself was turned into a sort of rambling landscape, as characteristic of the work of Andrew Jackson Downing, who in attempting to complement James Renwick’s Norman-style Smithsonian divided the great lawn into four individual parks, with connecting curvilinear walks and drives defined by casual groupings of various types of trees—a “public museum of living trees and shrubs.”

\(^6\) The new summer capital, which was often referred to as the “American Simla” was located in the pine covered highlands of Baguio, roughly 150 miles north of Manila. The story of its construction lays
morning Burnham and Anderson were shuttled to some point of interest, “one day (the rapidly developing area of) Pasay, another San Lazaro (former friar lands), and another Bilibid (the prison).” Respite from the hectic tours of the city were provided by leisurely drives to the countryside where Burnham could appreciate in full, via a newly paved network of roads, the lush beauty of the tropics. It was the urban context of Manila however, a city more than three centuries old where Burnham truly relished the context. He observed with delight how the old colonial architecture both accommodated and made use of the given conditions, noting how the shade created by the narrow arrangement of streets tempered the tropical heat, and of how the Filipinos made windows out of an “attractive translucent native shell.” He lamented the more conspicuous encroachment of modern convenience—the corrugated galvanized iron that was replacing the “beautiful Spanish tile” and the telephone poles inserted haphazardly wherever it seemed convenient. He took special interest in the old Spanish churches and government buildings, which, he would later write could be used “as examples of future structures,” on account of “their beauty and practical suitability to local conditions.” Making the deepest impression on Burnham, however was the imposing presence of Intramuros, the three hundred year old bastioned enclave of Spanish puro sangre—the ‘racially pure’ gentry of the former colonial regime.

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7 Pasay was a quickly developing residential area just south of the capital, San Lazaro was an old, soon to be developed friar estate, and Bilibid was the archipelago’s main prison.
8 Capiz shell is the product of the Placuna placenta, or windowpane oyster, valued for their shells, which have been used for thousands of years as a substitute for glass because of their durability, translucence and flat shape.
10 The site on which Intramuros was built was settled long before Spanish conquest. By the time the Spanish arrived Manila Tagalog and Kampampangan tribes and kingdoms used the site, located along
Back in Chicago Burnham would collect his thoughts and observations, working closely with Anderson on the proposal through the Spring of 1905. In late June of that year he submitted to Taft, a concisely composed document titled “Report on Proposed Improvements at Manila,” alongside a stunning new plan for the capital city.

![Burnham's 1905 Plan for "Proposed Improvements" to Manila](image)

Ceremoniously concluding his report, Burnham wrote:

(Y)et still small in area, possessing the bay of Naples the winding river of Paris, and the canals of Venice, Manila has before it an opportunity unique in history of modern times, the opportunity to create a unified city equal to the greatest of the

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the strategic location along Manila bay at the mouth of the Pasig River, to trade with merchants from China, India, Borneo and Indonesia. In the fourteenth century it was a part of the Majapahit empire and in the late 15th century it was invaded by Sultan Bolkiah and made a part of the Sultanate of Brunei. For a full history of pre-Hispanic Manila see Jose Victor Torres, *Ciudad Murada, A Walk Through Historic Intramuros*. Manila: Vibal Publishing House. Or Winand W. Klassen *Architecture in the Philippines: Filipino Building in a Cross Cultural Context*. Cebu City: University of San Carlos Press, 1986.
Western world, with (the) unparalleled and priceless addition of a tropical setting…. Manila may rightly hope to become the adequate expression of the destiny of the Filipino people as well as an enduring witness to the efficient services of America in the Philippine Islands.  

The plan, upon first inspection seemed to echo many of Burnham’s increasingly formulaic proposals for Washington, Cleveland and San Francisco. The formal grouping of the government buildings, which first made its appearance at the Columbian Exposition’s Court of Honor was once again made the centerpiece of his plan, though in Manila this center would be distorted into a somewhat awkward asymmetry by the accommodation of Manila’s existing historical core. The diagonal avenues and monumental nodes made familiar in his renovation for Washington D.C. reappeared in Manila where they cut through both an existing colonial gridiron and that gridiron’s rationalized expansion.

Rereading the Plan

Because of the highly charged symbolic content of the plan it is tempting to read Burnham’s Manila plan as all of Burnham’s plans are typically read—as formal arrangements heavily laden with ideology. Certainly the Filipinos would have been prepared to receive it that way—they were no strangers to receiving architecture as the bearer of meaning. Since the sixteenth century the archipelago’s natives had been absorbing, celebrating and at times resisting the siren song of monumental architecture in the form of hundreds of imposing Catholic churches that organized towns across the archipelago. In any case, for a countless number of reasons Burnham faced a different set of problems in Manila than he faced in America’s

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mainland cities. To begin with, Burnham was not, as he was in the American cities attempting to reform the uncontrolled growth of an industrial city. The industrial revolution had not arrived as such to Manila. In the Philippines, Burnham also encountered the new problem of history. At the dawn of the 20th century Manila was a centuries old city that predated even Spanish conquest in the 16th century, by contrast Washington D.C. was barely one hundred years old, Cleveland and Chicago were even younger. But perhaps presenting the most difficulty to Burnham was the seemingly ironic condition of an American colony. The nation’s moral imagination was provoked by the apparent contradiction between an historical image of the United States as the righteous victor in its revolution against British Imperial rule and America’s current position as the opportunist scavenger and heir apparent of Spain’s dying Empire. In short, at Manila, the architect was charged with the absurd task of ideologically positioning his American plan against the idea of Empire itself. For all these reasons, America’s new capitol in the Far East, as already noted by a small handful of historians, most notably Mario Manieri-Elia was a “natural” opportunity “to sound the trumpets of ideology.” While it is my intention to avoid this sort of formal reading, I would be remiss in not addressing what little scholarship on the Manila Plan already exists.

Manieri-Elia’s analysis of Manila, closely patterned upon Tafuri’s reading of Washington D.C. in *Architecture and Utopia*, argues that the ideology “trumpeted” by Burnham’s City Beautiful plans was an Enlightenment ideology borrowed from Europe. In that argument Tafuri

12 Mario Manieri-Elia, “Toward an ‘Imperial City’” in *The American City from the Civil War to the New Deal*, pg. 81
13 It is a bit more complicated than this in that the formal language that L’Enfant actually borrowed were not Enlightenment forms, but rather, as Tafuri points out Le Notre’s French Garden, Wren’s plan for the City of London, eighteenth-century Karlsruhe, and Patte’s Paris… “models derived from the Europe of absolutism and despotism… expropriated by the capital of democratic institutions, and translated into a
argued that Washington D.C. (as both initially planned by L’Enfant, and as renovated by Burnham) “constitute(d) a sort of American ‘bad conscience.’” Washington, according to Tafuri served to “ward off the anguish” of a creeping recognition that American society’s drive to economic and industrial development was leading to the concrete destruction of the Enlightenment values that the plan purported to express. As Tafuri points out, the formalization of liberal ideals “…can exist undisturbed alongside the iron-clad laws of industrial development,” as long as the spaces of industrial development exist as the dominant pattern elsewhere (namely in Chicago, New York, Cleveland, &c.). Whether there is merit to Tafuri’s reading or not, Manieri-Elia grafts it, unmodified onto Burnham’s Manila. Looking closely at the Manila plan by itself, one finds little evidence of “anguish” over America’s economic and industrial development. Rather, what one finds is that though the “trumpets of ideology” did indeed play loud and clear, the Italians identified the wrong ideology. In his Manila plan Burnham, more clearly than he was able to do elsewhere, expressed a solid belief in America’s economic and industrial development as a national asset and as a moral imperative. One does not have to look far for proof of this, the writing was on the walls. An American tradition of Architecture parlante was not always resolved in a global architectonic form, messages could be expressed, and far more explicitly in symbolic and textual applications attached to the neoclassical forms. The Columbian Exposition was an enormous paean, not towards Enlightenment values but to values of the American pioneer, inventor, explorer, and businessman. The Neo Classical forms did not point towards Enlightenment Europe, but towards Imperial Rome. It was Columbus, after all—a conqueror in the model of Trajan or Constantine,
and not an Enlightenment figure like Voltaire who rode atop the chariot at the center of the Charles Atwood’s Triumphal Arch. The two colossal allegorical figures stationed at the base of the arch represented the genius of “Navigation and Discovery.” The names embossed onto the arch’s entablature were not those of the founding fathers, but of Spanish conquistadors and American explorers—Champlain, La Salle, Ponce de Leon, Cortez, and De Soto. Finally, articulating this new set of values in plain enough speech, the main inscription in the center of the attic read:

TO THE PIONEERS OF CIVIL AND RELIGIOUS LIBERTY
BUT BOLDER THEY WHO FIRST OFF-CAST
THEIR MOORINGS FROM THE HABITABLE PAST
AND VENTURED CHARTLESS ON THE SEA
OF STORM-ENGENDERING LIBERTY

Figure 1.2 The Peristyle at the Columbian Exposition

In any case, Burnham’s use of Ancient forms was a choice willfully ‘unmoored’ from the “habitable past,” while the architecture attempted to express something grand, the writing on the
wall attempted to express something resolutely new. In a similar way the decorative programs of Manila’s Beaux Arts architecture also plainly express its values, as demonstrated below in an elevation of Manila’s City Hall where Labor, Wealth, and Capitol are personified.

Figure 1.3 Detail of Manila City Hall by Antonio Toledo with Three Figures representing Labor, Wealth, and Capital (1941)

If there was any anguish at all, it was in the association with the institution of colonialism itself, an institution that the United States defined itself against. In order to address this awkward fact, Burnham designed a comparison. The capitol complex—the centerpiece of his plan would not replace the old walled city. Instead, it would be set alongside the dark symbol of Spanish colonial rule and oppression. Though this was clearly meant as a means of demonstrating the differences between each colonial regime, Burnham argued for the walls’ preservation on account of their historical value, reasoning in his final report that many of the walls surrounding

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14 Burnham himself would express the distinctly American sentiments for the new in 1902, when he wrote:

There develops in the life of every American youth a state of restless desire, a dissatisfaction incited by the prospect of superior opportunities, a potent longing for pleasanter things. In this frame of mind, this eager desire and expectancy, the American… comes upon a new thing that, in its capacities to make him happy, transcends anything he has used or known. No ancient traditions bind him to the outworn. The new has come, and he will possess it. So works out the ambition of the New World’s pioneer ancestry in the children of the new day… In the American there is developing… a new instinct.

Intramuros had been in existence since the sixteenth century, and on account of the fact that it was one of the few remaining examples of a medieval fortified town, it “…possessed singular historical and archaeological interest.”\(^{15}\) Burnham’s interest in colonial history offered him a convenient “way out” of the American Imperial ‘contradiction,’ allowing him to posit a progressive or “Enlightened American Imperialism”—an ideologically fraught syllogism legally codified in the Roosevelt corollary to the Monroe Doctrine.\(^{16}\) Architecturally speaking, the articulation of this contrast was fairly simple to achieve.

Figure 1.4 Plan of Manila, 1851 showing the town’s protection from outside threat. Long range cannons were emplaced facing West (Manila Bay), while a moat surrounded the Eastern and Southern edges, where cannons were also emplaced facing the city’s interior (and its insurrectionist threats). The Pasig River protected Northern edge while providing a safe harbor for lightering vessels.


\(^{16}\) The steady aim of this Nation, as of all enlightened nations, should be to strive to bring ever nearer the day when there shall prevail throughout the world the peace of justice…. In asserting the Monroe Doctrine, in taking such steps as we have taken in regard to Cuba, Venezuela, and Panama, and in endeavoring to circumscribe the theater of war in the Far East, and to secure the open door in China, we have acted in our own interest as well as in the interest of humanity at large. (From the Roosevelt Corollary to the Monroe Doctrine)
For as long as Intramuros stood, it was an instrument of violent political exclusion, housing the Spanish _puro sangre_ within an enclosure over 40 feet thick at some locations. The perimeter of Intramuros, punctuated with bastions outfitted with heavy artillery protected the Spanish colony from both outside attacks (from the Dutch, Japanese, Chinese and the English) and insurrectionist threats originating from the direction of the city’s interior.\(^{17}\) From the top of the walls sentries walked along a raised promenade from which they could comfortably patrol the daily actions of the populations below, transforming the entire city into a sort of giant, urban panopticon. The new American government buildings, by contrast, were not tools of surveillance, physical threat or exclusion, but rather operated through the employment of an intimidating though _attractive_ effect. The radial streets emanating from the capitol group would, in Burnham’s words allow “…every section of the capitol city … (to) look with deference toward the symbol of the nation’s power.”\(^{18}\) Just as Burnham intended to produce an inspiring

\(^{17}\) The size of bastion was relative to the perceived nature of each respective threat. Small, evenly distributed bastions outfitted with powerful long range cannons were placed along the city’s broad side, facing the sea. Larger bastions punctuated thick walls facing inland. The largest bastion overlooked the commerce controlling Chinese population of the Parian. The next largest bastion was aimed towards baptized, though still commercially engaged Chinese of Binondo. A smaller bastion was aimed at the Christianized Tagalogs who were thought of by the Spanish as variably docile.

\(^{18}\) This strategy of attraction, as opposed to exclusion was remarkably similar to the urban strategy of the Catholic church, as detailed in the _Laws of the Indies:_

> In inland towns the church is to be on the plaza but at a distance from it in a situation where it can stand by itself, separate from other buildings so that it can be seen from all sides. It can thus be made more beautiful and it will inspire more respect. It would be built on high ground so that in order to reach its entrance people will have to ascent a flight of steps.

The view “from all sides” common to both Burnham’s strategy and the strategy as outlined in the Laws of the Indies was in direct opposition to the way the walls of Intramuros operated, that is, not by exclusion but through attraction and receptivity.

Nuttall, Zelia. “Royal Ordinances Concerning the Laying Out of New Towns.” _The Hispanic American Historical Review_ 5, no. 2 (1922): 249-54
effect with his government complex, so did he aim to exaggerate that effect by leaving Intramuros’ muscular walls in place.

However, the walls themselves presented a problem. On account of their original purpose—to prevent the free movement of traffic, they interfered with Burnham’s primary intention to remake Manila as a modern and functioning center of commerce—a fairly significant problem considering that many of the city’s vital functions were still contained within Intramuros. Thus, he proposed that the walls could be pierced with the occasional gateway, a move that would at once permit the passage of traffic “without destroying the (walls’ powerful) effect.” The walls’ impressiveness, Burnham suggested could be enhanced by draining Intramuros’ surrounding moat and placing a lawn at the lowest possible elevation relative to the walls. This would provide a new worm’s eye prospect from which to contemplate the formally and tonally defined features of both regimes—one dark and exclusive, the other bright and overwhelming—a contrast of apparently opposed and equally sublime effects. Meanwhile, the “occasional piercing” of the walls neutered the fortress’ original function, at the same time that it held in place an image of a less civilized form of control—leaving the walls of Intramuros to stand as a museum piece of a formidable though decidedly backwards form of Imperialism. The comparison would frame empire itself as a morally neutral institution, the relative merits of which were dependent upon the moral fortitude of the occupying power. If in Chicago, Cleveland and New York, Burnham’s reforms suggested that the development of industrial capitalism was not inherently hostile to the production of public good, so too could colonization (a form of development) benefit the colonized masses when executed under the benevolent aegis of a “democratic industrial civilization.” With this juxtaposition Burnham more or less consciously invoked what the Spanish literary critic and historian Julián Juderías termed the “leyenda negra” or “Black
Legend”—a form of fantastical historical writing that he claimed has since the sixteenth century
demonized Imperial Spain in a politically motivated attempt to morally disqualify it as a ruler
over its subjects, especially her subjects in the New World and in the Philippines. The
representation of Spanish colonial power as dark or as un-enlightened, was an effective and
convenient means of establishing American Empire if not as irreproachable, then at least as
comparatively “progressive,” a logic of relativity that the United States relied heavily upon
following its occupation of the insular wreckage of Spain’s former empire.

The Construction of the Semi-Public Sphere

The key features of Burnham’s Manila Plan, however lie not in Burnham’s heavy handed
use of symbolism, but rather in his systematic segregation of the city. That is to say, the
American imperial regime would not distinguish itself from its Spanish predecessor by its
relative inclusiveness, as suggested by the largely rhetorical partit described above—social life
under the Americans would be scarcely less segregated than it was under the Spanish. That
segregation, however would take on far subtler spatial modulations than they did under the
Spanish. According to Charles Ballentine, the Philippines correspondent for the Associated
Press:

In the American and European life of Manila, the Filipino is a small quantity, and
there is scarcely any social communication between the two races. Of course the
Governor and the Commissioners and high officials of the Government, both civil
and military, attend dinners, musicals, and similar affairs, at the houses of the
most prominent Filipinos connected with the Government, and there all social
communication may be said to cease.  

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19 The Black Legend was used extensively by the Dutch during their fight for independence from Spanish
rule. This style of writing was founded in the Dominican orders of the Catholic church by Friars
concerned with the well being of an indigenous population is steep demographic decline.
20 Ballentine, Charles. (Bellairs, Edgar G. pseudonym) As It Is in the Philippines. Pg. 215-6, New York:
Lewis, Scribner & Co. 1902. It is important to note here that Ballentine wrote this during the Taft’s term
as governor general, which as far as social functions went, were comparatively less segregated than that
This segregation resonates with what is viewed as one of the major shortcomings of Burnham’s City Beautiful planning, and his Chicago Plan in particular—its lack of provisions for housing and for the poor in general, who in the case of Manila were without exception, the native population.\(^{21}\) Instead of working directly on problems of housing (and here I am referring to all of his plans), Burnham and his wealthy band of elite reformers focused on the creation of a beautiful city, which would play the role of inspiring its inhabitants to moral and civic virtue, to fulfill their “right to live among beautiful things,” though this would often be to the direct exclusion of their immediate needs.\(^{22}\) While the Chicago Plan was met with significant (though largely marginalized) criticism on this point, the Manila Plan, at least stateside, faced no such criticisms.\(^{23}\) However, the very same criticisms inveighed against the Chicago Plan apply in

\(^{21}\) Burnham did not conceive of the city as a place that accommodated comfortable living conditions. Burnham himself did not live in Chicago, but on a six-acre wooded plot by the lakefront in Evanston, explaining his move in a letter to his mother, “I did it because I can no longer bear to have my children run in the streets of Chicago, and especially I can not stand them being on the South Side.” It is interesting to contrast this to another city planner of renown, who famously worked on Chicago’s South Side, Ludwig Hilberseimer, who summed up his philosophy on planning in a 1962 letter to Architectural Record: “Should not children go to school without crossing a street?” Burnham quoted in Carl Smith, The Plan of Chicago. Chicago: University of Chicago Press, 2006. Pg. 58

\(^{22}\) Daniel Burnham, “White City and Capital City” in Century Magazine, February, 1902, Pg. 619

\(^{23}\) Among the most pointed criticisms came from John Fitzpatrick, of the Chicago Federation of Labor, who complained that the commission’s main purpose was to assist commercial and industrial interests, who were themselves guilty of making their employees (fellow occupants of the city), “long hours at starvation wages.” Echoing Fitzpatrick’s sentiments was a series of articles addressing the Plan that appeared in the Public, a Chicago based periodical that called itself the “National Journal of Fundamental Democracy.” In the opening article of a series dedicated to an assessment of the Plan, the Public stated that “The working masses of Chicago… have little use for the Commercial Club or any of its recommendations,” further arguing that the planners were anything but disinterested, since it was they who would profit most from the changes they proposed while Chicago’s citizens footed the bills. Continuing their criticism by arguing that the Plan did not deal with issues that affected most people below the privileged class, and by accusing the Commission of placing into power corrupt and unqualified aldermen like John Coughlin and Mike Kenna on key policy committees. Summing up their criticism the Public claimed “Probably no other large city in the world is so badly bedeviled as Chicago by grossly selfish interests masquerading as public benefactors.” All of the above quoted in Carl Smith, The Plan of Chicago. Chicago: University of Chicago Press, 2006. Pg. 127-8
greater measure to the Manila Plan. In Manila, we can see, with even more clarity, an intentional disregard for the masses, who on account of a barely concealed racism, and an even more starkly stratified condition are totally excluded from the city’s social life. To be sure, one has to know where to look in order to detect this second, clandestine organizing logic, though it is there, very plainly expressed.

One finds it off axis, tucked in two peculiar corner conditions, on newly reclaimed land, on small areas reserved exclusively for American programs. The importance of these programs is easily overlooked, as the formal logic of the plan presents these sites as left over spaces. These locations, however were more strategically, as opposed to formally determined. Set aside for the construction of the government owned Manila Hotel and a “casino, public bath and boat clubs,” these sites were intended to accommodate arriving American entrepreneurs “used to better conditions.” While they were inconspicuous in plan, they were in fact placed on the most valuable pieces of real estate on the island. Sited directly on the water and commanding an uninterrupted view of the spectacular Manila Sunset, both locations had their own private dock, where they could receive potential investors and dignitaries directly from Manila Bay. From the well appointed banquet halls and over lavishly catered dinners American Commissioners would issue contracts to American capitalists to build railways and roads, buildings and bridges, many of which were already drawn into Burnham’s grand plan.

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24 Racism was also a central factor in Chicago where the interests of an elite minority of white, Anglo-Saxon males was privileged over a diverse population of recent Eastern and Southern European immigrants and a rapidly growing black population arriving in massive waves from the South as the result of the great migration.

Though these sites would mark the earliest and most intensive development of this infrastructure of leisure, this was not an organizing logic limited to these two sites, but in fact represented most of the shoreline development south of the Pasig River (areas north of the Pasig were slated for industrial development). The main organizing feature of this city of leisure was the 250’ wide Sea Boulevard, eventually named Dewey Boulevard—a 12 mile long road that ran along the curve of Manila Bay, which would serve as the clearest precedent for Chicago’s famous Lake Shore Drive.\textsuperscript{26} The Sea Boulevard, for which Pierce Anderson drew a separate plan would be busily populated with trams, carromatas, cars and pedestrians, each with their own designated lane of traffic and shaded by lush plantings of acacia, palm and mango trees. It would be, Burnham envisioned “the natural theater of the social life of Manila,” and thus would be home to the aforementioned hotel, the Governor General’s House, official residences (including those of the major general and the vice-admiral), and a grouping of private “city” clubs, which he described in detail:

\textsuperscript{26} By precedent, I mean built precedent, as Burnham had been proposing a south shore drive and waterway for Chicago since 1896.
Stretching south from the governor-general’s residence... on new-made land, extend a series of city clubs, whose character as *semipublic* institutions justifies giving up to them a portion of the waterfront. Each club will have ample grounds for gardens and outdoor games, as well as a broad terrace on the seaward side with suitable planting for protection from the sun’s glare and the typhoon. It is believed that the close grouping of these clubs, as in London, will enhance their value to the whole community. The concentration of social activities through the related grouping of official residences, hotels, and clubs in parkway boulevards and gardens along the water front will, it is believed, make possible an attractive social life that will bring many influential people to Manila and count for much in the prosperity of the islands. Along the shore, beyond the city limits to the south is shown a suitable location for a country club, the main club buildings being located inside the ocean boulevard, but with space reserved for certain buildings on new-made land between the boulevard and the sea.²⁷

![Figure 1.7 A grouping of "city" clubs on reclaimed land to the right of the capitol complex](image)

Though the grouping of the city clubs was never built as such, Burnham’s characterization of the clubs as “semipublic” reveals the function of what Burnham called “the delightfulfulness of a city,” which he considered “an element of first importance to its prosperity.” Burnham reasoned that if the attractions of leisure were strong enough, enough money “to insure continuous good times” would be made by both those who chose to stay and by visitors. Indeed, marking the immediacy of their importance, the first buildings to descend upon the newly planted mall were

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the official programs of leisure that occupied the aforementioned peculiar beach front corners—the Manila Hotel and the Army and Navy Club and Elk’s Lodge (which took the place of the casino, public bath and boat club). Prioritizing the construction of what he called “semipublic” programs demonstrated the unification of private interests and the ‘public’ functions of colonial government. In the meantime, the buildings of the government group—the still rhetorical centerpiece of Burnham’s plan would remain unbuilt. In fact it would be more than a decade after the completion of the Manila Hotel before construction of the first buildings of the government group would begin. In summary we can see that the situation described by Ballentine as a sort of casual and customary racism, was in fact a structural feature of the plan itself. Again, we see two logics upon which the system operates—attractive effects for an inclusive population, and delight and comfort for an elite minority.

![The Manila Hotel circa 1930 next to the empty sites of the capitol group](image)

Demonstrating the immediate priorities of the insular government, the buildings of the capitol group were, on account of a consistent shortage of funds (i.e. the native population’s own failure to provide tax revenues large enough for the construction of their capital) was repetitively deferred. Ultimately, only four of the government group’s buildings were ever built—the
Legislative Building, the twin buildings of the Department of Finance and the Department of Agriculture and the Supreme Court Building. The first, completed in 1926, was the Legislative Building which did not occupy the central space intended for it, but rather was placed off axis on a site originally intended for a library. The Department of Finance and the Department of Agriculture followed several years later—‘public’ programs directly related to the material development of the islands. The increasingly conspicuous absence of public buildings and the growing prominence of the mutually supporting programs of commerce and leisure revealed the colonial project’s consolidating aims.

Figure 1.9 – 1.10 (left) The proposed sea boulevard, 1906 (right) As Built, it was named Dewey Boulevard. 1930s

Though the clubs that Burnham envisioned did not occupy the original site envisioned for them, dozens could be found in and around the center of the city. Already established in 1900 were the German Club, the Manila Club (British) the Casino Español, and the Army and Navy Club. To these were added the Elk’s club—a distinctively civil club (for those not associated with the

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28 In fact, the building was originally designed to be a library, and was only converted into the Legislative Building following the passage of the Philippine Autonomy Act, which contained the first formal and official declaration of the United States’ Federal Government’s commitment to grant independence to the Philippines.
military), the Manila Polo Club (Forbes’ pet project), the University Club, the Manila golf club, and the wildly popular American Club, which distinguished itself as an ‘antidote’ to the culture of elitism that excluded many members of Manila’s increasingly large population of Americans. As a means of distinguishing its ‘democratic’ spirit, the American club was open to any “American of good character and average intelligence.” The inclusion of just about any American underscored the purely racial qualification of this colonial elitism. This is all to say that under no circumstances were any natives, save for servants allowed through the doors of any of the clubs. This exclusion extended to even the prominent native and mestizo politicians that Americans were supposedly grooming to take over the reins of government following (a persistently promised though repetitively deferred) American granted independence. This exclusion all but guaranteed the native’s total isolation from a society in control of their own economy.

![Figure 1.11 Members of the U.S. Signal Corps 'socializing' at the Elk's Lodge circa 1910. Notice the Filipino servants behind the back row and to the right of those posing for the photo. The half-inclusion of servants in posed photos was a common practice at the time.](image)

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30 The first formal declaration of the United States Federal Government’s commitment to grant the Philippines its independence came with the passage of the Jones Law, passed on August 28, 1916. The law provided that the granting of independence would come only “as soon as a stable government can be established,” which was to be determined by the United States Government itself.
In Manila we see the historically race based stratification of American society fully naturalized in the colonial context. It was behind closed doors that colonial government officials felt most able to conduct the work of business—lavishly catered balls, polo matches and endless rounds of golf—activities that for the most part looked like the idle life of conspicuous leisure was in fact the new ‘work’ of global business. If one looks more closely at the Manila plan, as we have here, you begin to see something quite different from the trumpeted claims of the City Beautiful’s boosters. In the lazy and involuting curve of Dewey Boulevard one finds the unification of leisure and colonial ‘work.’ The clubs and resorts constituted the semi-public sphere and semi-official infrastructure of what came to be known as “dollar diplomacy,” or the government support of overseas investments of banks and corporations. While there were no monumental walls erected as a part of Burnham’s plan, a strategy of exclusion and dispossession was built up in a hidden network of closed doors, service quarters, and country clubs—methods of exclusion masquerading in the breezy togs of mañana ambiance.

Despite the segregation drawn into Burnham’s plan, it is of little use to read it as somehow duplicitous—to interpret the government group as Mario Manieri-Elia read Burnham’s Manila plan—as ideological cover for an otherwise naked colonial-capitalist avarice.31 The joining of public and private imperatives and the elevation of leisure and conspicuous consumption to the level of ‘public service’ were a part of a moral universe wholly convinced of the general benefits and blessings of a material prosperity gained through industrial and now finance capitalism. Thomas Hines, having taken a closer look at the plan itself, also fails to

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sufficiently deal with the figure of the “semipublic” programs, and ends up casually brushing aside what turns out to be one of the dominant aspects of the plan by pointing out that Burnham made “democratic concessions, reserving even larger land areas for the public,” many of which in the process of construction were eventually given over to private or “semipublic” development, a fact that Hines fails to mention. This conversion of areas set aside for the public included, for example the symbolically charged filled in moat that surrounded Intramuros, which was never opened as a park, but was rather built as a ‘public’ eighteen hole golf course.

Figure 1.12 The former moat surrounding Intramuros transformed into an eighteen hole golf course. Image by Carl Mydans.

This is all to say, a Calvinist ethic undergirded by the equation that “time is money” is here fully transformed in the Philippines into an equivalence between leisure time and the creation of business opportunities. That is to say, these conspicuous forms of leisure signaled a highly advanced order of accumulation, and the dawn of an era variably characterized as financial/third

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32 Thomas Hines, *Burnham of Chicago*. Pg. 204
stage/ multinational or late capitalism. In this stage of capitalism, material prosperity itself was considered, at least by those in power, as an inherently moral outcome, judged not by its conspicuous practices but by its apparently widespread beneficial results. American colonialism was thus driven by a set of economic concerns that the colonizers identified as the basis for an American moral idealism— one that embraced private enterprise in general and the corporation in particular as a progressive national (and imperial) asset, and as the wellspring of a broadly beneficial prosperity, otherwise recognizable as the doctrine of modernization. Thus, what Burnham meant by the “semi-public” nature of leisure programs was that he and the elite politicians and businessmen he worked for believed that the most efficient role for government was to support private enterprise, as it was, by virtue of the corporation’s mastery over the material world, the form of organization best suited to render concrete benefits for the public. Neither segregation nor the construction of programs dedicated to white leisure had to be justified, as they were considered necessary and integral conditions to the progress of the prosperous whole.

These were the spaces in which global empire was organized, where the world’s economic futures would be planned out by an overlapping and increasingly indistinguishable political and corporate elite—one that for the most part operated free from the obstacles and vagaries of democratic consent. President McKinley’s decision to annex the Philippines in its entirety—that is to say the decision to formally colonize in the first instance, was an early demonstration of American corporate-imperialist power. In order to make the decision the President was advised not by a democratically elected body, but by a small group of interested political insiders and American business leaders. In a similar manner military intervention in China was initiated by executive order. This form of elite governance took a slight turn under the
political leadership of Theodore Roosevelt, who in a dramatic and barefaced display of power declared that the “vital work” to control the Panama Canal route “…was done by me without the aid or advice of anyone… and without the knowledge of anyone.” This was a statement that attempted to downplay any influence American business leaders may have had over the president. TR was true to his word—he would not pollute his reign with what he viewed as the immoral practices of collusion or “improper favoritism.” He operated on a higher register of “fair dealing,” and directly upon the corporate global order itself.33 By Roosevelt’s time American corporate hegemony had been totally transformed into a fully fledged political ideology—one that Roosevelt openly accommodated. Roosevelt believed that a world run by corporations was inevitable, and to the extent that it was, it should develop under the auspices of morally superior American government. That is to say that while TR did not care to benefit any single American corporation, he believed in a system that should benefit the institution of the American corporation itself.34 Roosevelt defended his bold executive actions as “democratic” in that he could argue, much as an enlightened despot might, and as the heads of corporations could likewise argue, that they were actions done in the interest of American stakeholders (the American citizen as repatriated by the corporation). Thus, the interest of the corporations who would be the direct beneficiaries of the material development of the Philippines, the militarization of trade in China, and control over the Panama Canal route were considered as indistinguishable from the interest of the people (both colonial subjects and full fledged

33 The phrases in quotes are lifted from Theodore Roosevelt’s Eighth Annual Message to the House of Representatives.
34 To the extent that Roosevelt was eventually required to select corporations to execute his various world building projects, the Panama Canal, for example, he attempted to evaluate those corporations based on what he estimated to be their honest dealings and moral virtues. Thus corporations were more than just a
American citizens) who, it was claimed would be the ultimate beneficiaries of American
corporate colonial activity.

Figure 1.13-1.14 American Manileños at Forbes’ Polo Club on the eve of war (1940) from a
portfolio of images by Life photographer Carl Mydans showing the nature of social life in
Manila just before the outbreak of WWII in the Pacific.

These spaces, in which the corporate global order would be shaped and determined, those
of a so-called semi-public nature, openly borrowed from the architectural language of place—
blending a nostalgia for the Spanish colonial period with a lush tropicalia and an apparently
healthy interest in the comfort and functionality of indigenous architectural construction. This
interest in the architectural language and technology of place serves to underscore two important
functions of a diversification of style in the Philippines. On the one hand an interest in local form
demonstrates the United States’ interest in its own global presence, Neo-Classical architecture of
the capital group would come to play a straightforward ideological function. While one may
easily mistake the neoclassical institutional facades as frontage for public space, spaces
supposedly intended to foreground the full appearance of the Filipino citizen, when placed within
the context of a plan in which all of the city’s most desirable sites are wholly given over to the
function of white American leisure—much of it housed in forms of vernacular architecture—we
may begin to understand the function of either style a bit differently. This begs the question, if the ‘real’ exchanges of power were happening within semi-public spaces, were the buildings of the capitol group anything more than a play-theatre for democracy—where Filipino elected officials might eventually perform (emphasis on the performance) all of the rites and rituals of a democratic and sovereign nation? Perhaps, but that theatre played a more important role than this characterization might suggest, as it played a vital role in fortifying and legitimizing this so-called semi-public sphere. In that sense these ‘public’ spaces were also (only) semi-public. The accommodation of semi-public space, which is presented as a transitional space—a half-way compromise between public interests and private imperatives, in fact heralds a major, though incomplete suppression of the “public sphere” with a “semi-public” alternative, which was in fact only ‘public’ in the sense that public resources were being channeled towards the support of private imperatives.

The arrival of the semi-public sphere then was an open challenge to the idea of democracy as popular government. During the Progressive-Imperialist Era, American political and business leaders, in their own self interest and as a matter of belief, re-presented democracy—as what was good for the people, and thus as the outcome of material prosperity. Burnham’s plan thus echoed the sentiments of famed historian of the American frontier Frederick Jackson Turner, who like Burnham observed the inexorable finitude of the world’s “virgin” territories. Though Turner was never able to fully escape the sway of his own nostalgia for the frontier, he understood the shortsightedness of a view that saw in the acquisition of Cuba, Guam, Puerto Rico, the Philippines and the Panama Canal Zone a simple transfiguration of the frontier line into a limited game of island-hopping leap frog. The possibilities of a permanent process of colonization lay not in the territorial acquisition of land, but in the continuous
reorganization of interior spaces. A limited view of American empire—one that would view it merely as the last breath of the American frontier, has enabled historians to push a set of events of central historical importance into the margins of American history. Were these tiny insular territories not just pint-sized diversions relative to the sheer magnitude of the American continent—or of the broad and penetrative reach of American empire as currently understood? To think that a history of American imperialism should be minimized as a function of the size of America’s insular territories, or the apparently short duration of America’s imperial activity would be to skip over a chapter in which the United States actively worked out the lasting contours of its foreign policy. It would be to ignore a history that forever transformed and continues to transform the United States, and how the United States operates in the world.

The beginnings of this transformation takes us back to the continental extents of America itself, all the way back to Chicago, or rather to the vast Midwestern prairies and the waterways that gave birth to it. At the turn of the twentieth century, somewhat unexpectedly, Chicago emerged as the commercial center of American economic and industrial life. This was at the precise moment that the United States came to finally fill out its predestined shape. It was here that the image of the United States as a nation built by a heroized race of rugged and bronzed-in-the-face frontiersmen passed into the realm of mythology. The United States was already by that time, a nation more consequentially shaped by the actions and ambitions of the captains of

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35 The Philippines being the largest of the colonial acquisitions (in terms of both population and in terms of its geographical size) following the Spanish American War. Its landmass at 115,831 square miles was roughly only 4% of the landmass of the contiguous 48 states. According to the 1898 census the Philippines had a population of 7,832,719 inhabitants, while the population of the United States in 1900 was roughly 76 million—roughly 10% of the United States’ total population. The Philippines’ large population was one of the main though often unarticulated reasons why the United States resisted accepting it into the union of states.

36 The familiar shape of the contiguous 48 states was a figure that never correlated with the actual extents of American empire.
industry, the ones who came in full force to the Philippines. Turner would make the provocative link between the rise of American corporate managerialism, with the very nature of the Great Midwestern prairie lands. Unlike the frontier, which as a mobile line existed only as a sort of cartographical fiction, the Midwestern section, like all sections, was held together by its physical qualities, material resources and the characteristics of the people who settled it.37 It was in the specific task, Turner argued of “dealing with the Midwest’s vast resources, over vast areas,” that produced the modern, distinct, and strong form of the American corporation. In the Midwest where “things were done in the gross,” and machines came to the aid of tasks unable to be addressed with bare human power.38 Upon first encountering it, early pioneers considered the prairielands a desert, in the older sense of the term, “a thing abandoned” because of its ability to support little more than an ocean of prairie grasses, sparse copses of cotton woods and a healthy population of cunning prairie dogs. The Midwest’s cultivation by man and machine transformed what was initially thought of as barren desert into the very source of American vitality and fertility. The promise of the Midwest, in other words, lay not in its inherent qualities, but in its latent productivity, a fertility stirred only by inventive American action and efficient American management.

The story of the origins of the John Deere corporation furnishes a concrete example. Born in 1804, in Rutland, Vermont, where he trained as a blacksmith, John Deere moved to the small town of Detour, Illinois in the late 1820s. There Deere observed farmers toiling with the trying

37 It was the qualities of the Midwestern prairie that captivated Louis Sullivan, who saw on a train from Philadelphia to his new home in Chicago saw in the prairie “power greater than the mountains” and in glimpses of the great lake “spreading also like a floor to the far horizon…power, naked power, naked as the prairies.” It was this effect that Sullivan would spend his life attempting to capture in his architecture. It was the horizon itself that his far more famous pupil, Frank Lloyd Wright would dedicate his life, but the sublime power of the horizon neither informed nor inspired Burnham.

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conditions of the semi arid prairie, the most difficult of them being the thickly matted root systems of the tall prairie grasses (root systems that allowed the grasses to survive even multi-year droughts). The conventional wooden plows with cast iron edges frequently got stuck in the soil, prohibiting farmers from cultivating anything more than small patches of the vast swath of earth, the end of which their eyes could not see. Deere answered this frustration by attaching a Scottish steel saw blade to a plow, an innovation that enabled farmers to finally “break the plains,” and to eventually reorganize the Midwest—*in its entirety*, into neat and seemingly endless rows of grain. Not only did John Deere’s small company flourish into a massive corporation, but so did the grain industry that used his machinery, as did the railroad corporations that distributed the grain, as did the vast cattle ranches that the grain sustained, and so on and so forth. Such enormous operations, which required new complex systems of mass production could not be run by small proprietors, but had to come under the hierarchical control of the new captains of industry. When Americans arrived in the Philippines they did not arrive in covered wagons with nothing but pans and hand tools—they had come after the transformation of America’s vast prairie lands—with a fully packed arsenal of machines, industrial materials, corporate managerialism and capital—a new corporate-colonial assemblage. That is to say, to identify American imperialism as an outgrowth of frontierism would be to misunderstand it entirely. Burnham was the product of the very same milieu that gave birth not only to John Deere, but to the giant rail corporations and countless other corporations that converged upon Chicago. Burnham operated the World’s Columbian Exposition Corporation under the advice and counsel of such corporate men—men transformed by the vast expanse of the prairie itself. It was under their leadership, and with their techniques of dealing with largeness itself, that Burnham was able to coordinate the transformation of a desolate mudflat on the undeveloped
outskirts of Chicago into a fully functioning “Dream City.” These corporate managerial techniques were eventually put to direct use in the Philippines where they would be used to transform Manila’s own marshy earth into a modern American city. Thus as a means of coming to a better understanding of Burnham’s “work” in the Philippines, we must first return to what is considered his first transformative miracle, we must return to the Fair.
Chapter 2: The “Lessons of the Fair” or the Origins of Some Colonial Techniques

This dissertation looks at several American domestic projects and colonial projects together—not as a means of comparison, but as a way of examining them as parts of the same set of transformations. The first pair of projects, already encountered are the Columbian World’s Fair and Burnham’s Manila Plan. What holds the Manila Plan and the Fair together, besides Burnham himself is the extent to which both were realized. While the former was realized in full, the latter was realized more fully than most large scale urban plans are fulfilled. The Fair was, in the words of William Parsons, the architect that Burnham entrusted to carry out his plans for Manila and Baguio, “an object lesson in accomplished idealism.” ¹ Parsons, therefore always looked to the Exposition as a template, an object lesson that he intended to replicate in Manila. To Parsons, Burnham offered succinct and straightforward advice based on his experiences in executing the fair, which he called the “Lessons of the Fair,” first delivered as the concluding words to the Fair’s Final Report, which he issued, unsolicited and unpaid, several months following the Fair’s conclusion. The lessons were delivered in a style typical of Burnham—as a compact list, the neatly packaged yield of his three-year effort.

1st That the designing and building of an Exposition, including the means of transportation inside of it, and also the artistic arrangement and decoration of exhibits, ought to be purely an architectural achievement.
2nd. That the best results can only be obtained by placing the whole work under the control of one man (and his bureau).
3rd. That he should be an architect.
4th. That the man who is charged with the designing and building during that time should control the gates, the guard, and all physical activities touching on or incorporated in a Fair

That the man who designs and builds an Exposition other things being equal, should operate the whole property, because he must necessarily be most familiar with it.  

Though he specified five, the list can be reduced to three points. The first, and irreducible lesson was that the project be “purely an architectural achievement.” The second and third points are reducible to the idea that the success of an Exposition depended on its dictatorial management by a single man—an architect. The fourth and fifth points, more simply stated, posit that the “one man” should control everything within a clearly defined territory. Each of these conclusions would be integral not only to the production of Expositions, but to the future practice of “City Planning,” as envisioned by Burnham. Notably, with the exception of the first strangely worded “lesson,” none of the points had much to do with architecture as conventionally understood, much less to do with the neoclassical revival with which he is so often associated. The lessons, plainly managerial in nature, did not attempt to communicate any ideal (unless that ideal be autocratic rule), but only aimed to dictate how an (image of) idealism may be, in Parson’s words “accomplished.”

Lesson 1: Autonomy or a “Purely Architectural Achievement”

Perhaps the most vaguely stated of all of the lessons of the Fair, was that all future fairs should be “purely an architectural achievement.” Architectural “purity” was never clearly qualified in Burnham’s final report, though a statement made by Andrew Carnegie, (who provided much of the steel used to construct the Fair) may help to shed some light on the matter.

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2 This point is made and published several times. In the Final Report it appears as “one man,” omitting “and his bureau.” Here, I am assuming it is for reasons of brevity and style that he makes this omission
Shortly after the closing of the Fair, in the article, “The Value of the World’s Fair to the American People,” Carnegie wrote:

“(T)he general effect of the purely artistic triumph attained by the buildings and their environment will remain, vividly defined in the memory and recorded there unmixed with baser matter.”

Indeed, it was for this “purely artistic triumph” that Burnham received the most public praise and recognition. What pleased Carnegie most about the Fair is that industrial production—what Carnegie referred to as the “baser matter” of American achievement was wholly overcome by the “general effect” of the art and architecture. As Carnegie understood, this new, seemingly humanistic achievement, was made possible not despite America’s “material triumphs,” but was the direct outcome of it. He understood, very well that the Fair was, in large part the product of his own factories. At the very least, material achievements did not seem to interfere with a higher call to humanistic endeavors. That is to say, the achievements of the Old World, often set in opposition to the profane and material achievements of the New, presented itself, at the Fair as a false opposition. Describing an interaction with an (unnamed) “eminent Frenchman,” Carnegie quoted him as saying “these buildings at Chicago seem as if they must have been produced by us in Paris, and those that we boasted of in Paris seem now as if they must have been designed and erected in Chicago.” According to Carnegie, what the Fair proved was that humanist endeavors

Notably, the Fair happened a little less than a year after the industrial lockout of steel workers at Carnegie’s Homestead plant, which led to the strike and a bloody battle between steel workers and Pinkertons and eventually the state militia.

Carnegie continued...That our electric display dwarfed what all nations of the earth combined could produce; that our transportation department was a revelation; that the heap of silver, lead, coal, and iron-stone was prodigious; that there were temples made of corn, and highly artistic effects produced from cereals... these material triumphs pass as a matter of course. We were expected to excel, in these. The grand point is, that incontestable as was our success in these material things, it was yet not so strangely or so unexpectedly incontestable as our triumph in the higher realm of artistic development. Andrew Carnegie “The Value of the World’s Fair to the American People” in Engineering Magazine, January 1894. Pg. 419.
could be achieved, and perhaps might best be achieved by profit seeking organizations and that commercial endeavors were not hostile to the progress of civilization, but were in fact drivers of a new and superior American form of civilization.\(^5\)

Praise for the “architectural achievement” came not only from the captains of industry, but also from their critics. Theodore Dreiser, an author whose romance with the city of Chicago was usually sympathetic to the struggles of labor and packed with details of the city’s miserable contrasts, perfectly echoed Carnegie’s sentiments, attributing its beauty not to human labor or the work of machines, but to “magic:”

I have often thought since (visiting the Fair) how those pessimists who up to that time had imagined that nothing of any artistic or scientific import could possibly be brought to fruition in America, especially in the middle West, must have opened their eyes, as I did mine at the sight of this realized dream of beauty… It was not as if many minds had labored toward this great end, or as if the great raw city which did not quite understand itself as yet had endeavored to make a great show, but rather as though some brooding spirit of beauty… had waved a magic wand quite as might have Prospero in *The Tempest*… and lo, this fairyland.\(^6\)

The enchantment, however was not complete. In fact, the longer lasting impression of the Fair was of its ‘dishonesty.’ The architecture of the Fair is today, far more often disparaged as steel skeletons heavily caked with overwrought plaster, than it is hailed as an (industrially realized) humanistic achievement.\(^7\) Burnham’s most prominent skeptics came from within the profession, many of whom did not see architecture in Burnham’s snowy white buildings, but something else. In Frank Lloyd Wright’s words Burnham “… made masterful use of the methods and men of his time to produce what seemed to him the nearest thing to architecture (that was also)

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\(^7\) Lewis Mumford, who was born two years after the Fair’s closing described its indelible after image as the “very cloak and costume of imperial enterprise.”
commercially expedient....” Wright’s underhanded compliment (delivered as a part of a brief eulogy for Burnham published in *Architectural Record*) reveals an already entrenched and in many ways self-conscious opposition that Henry Russell Hitchcock would characterize, a full 35 years later as the difference between “The Architecture of Genius and the Architecture of Bureaucracy,” a schism represented on the one hand by Frank Lloyd Wright and Louis Sullivan’s desire to create an “organic” American architectural language, and on the other hand by the managerial operation of early corporate firms like Albert Kahn’s. That Wright dismissed Burnham’s work as something “other” to architecture has distracted architecture historians from seeking out the precise nature and *craft* of Burnham’s otherness, an otherness that Burnham himself viewed as a ‘purification’ of architecture. One could alternatively describe this “purification” of architecture simply as a new division of labor—which in Burnham’s hands was the perfection of a separation of architecture’s ‘artistry’ from architecture’s structure. This separation/purification of the image of architecture has long been addressed by Colin Rowe et. al. as the consequence of the architecture of the steel cage. However, though accommodated by the steel cage, this separation should be positively identified as a consciously refined technique in and of itself. To overlook it would be to remain ignorant of one of Burnham’s greatest achievements, which was nothing less than the invention of “Architecture,” (with a capital A) as an intellectually or artistically driven discipline set apart from what Carnegie characterized as the ‘baser’ matters of building and business. This did not mean that Burnham intended to occupy the newly ‘elevated’ position of the architect. To the contrary, he identified his own talent as one that

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8 He followed the judgment of his master, Burnham’s ‘rival,’ Louis Sullivan, who famously asserted that “the damage wrought by the World’s Fair will last half a century from its date if not longer.”

supported “architectural genius” by managing and coordinating the increasingly complex demands of urban building in the Industrial Age. What I am proposing is that while the Chicago Frame (reinterpreted as Corbusier’s Dom-ino system) was taken up in Europe as an intellectual project, Burnham had already subsumed that intellectual project as part and parcel of a unified corporate project. Modernism was a project already written into the logic of the corporation. In other words, before the heralded geniuses of the European ‘avant-garde’ would declare their refusal of the past, that separation had long been perfected in the New World.

Burnham initiated the separation with a letter. Not long after Burnham and Root were hired as the Columbian Exposition’s local consultants, with Burnham acting as “Chief of Construction” and Root acting as “Consulting Architect,” Burnham, to the apparent chagrin of local talent, invited five prominent, mostly East Coast firms to design the main buildings of the Fair. Shortly after making his selection Burnham wrote to the men:

I realize the hesitancy you may feel in assuming responsibility for design when you do not fully control the execution of it. The committee feel, however, that the strictest economy of the two essentials, time and money, will be best subserved by keeping the actual control of the work in the hands of one man and his bureau; and I can assure you that your intents and purposes of design, once agreed upon by the committee, shall be carried out as you wish, and that they shall not be altered or meddled with, and when exigencies arise making any important change necessary, you shall be consulted and have the matter in charge the same as in original design…. I will be pleased to hear from you by wire…. Those who accept should make a preliminary visit here together as soon as possible.

Beyond informing the firms of their potential employment, the letter also notified the architects that “with view to (their) employment” they would be responsible for the “artistic aspect only,”

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10 McKim, Mead & White (New York), Geo. B. Post, (New York), Richard M. Hunt, (New York), Peabody & Stearns (Boston), Van Brunt & Howe (Kansas City).
with Burnham assuming full executive power. Recognizing that this would cause “hesitancy” amongst the architects, Burnham preempted their concerns by arguing that he and the Committee had done this in the interest of “the strictest economy of the two essentials—time and money.” In other words, Burnham was not the master of the fair, that title belonged to “time and money,” who would be best served “by keeping the actual control of the work in the hands of one man and his bureau.” Burnham was of course the “one man,” while Root “would act as (the) interpreter … without imparting to the work his own feelings.” While Burnham was actually asking that the firms abdicate executive power, he framed it as his own resignation from aesthetic intent. Burnham concedes that architecture as Hunt, Post et. al. practice it was both an artistic and executive process, and that any anxiety over relinquishing full control, save for the vaunted task of “art” to Burnham (the sensible builder) and Root (the sensitive interpreter)—was probably justified. This was, as Burnham assures them (and as was actually the case) all done in what he felt to be the higher interests of an economic use of money and time.

For Burnham the separation of structure from façade was not some form of fakery, it was simply as Frank Lloyd Wright put it, a building “method of his time.” It presented to Burnham the possibility of a new architectural delivery system, one that allowed for a now familiar division of labor—allowing one party to work at a distance from the jobsite, while the other performed the executive duties of a local architect. Before the turn of the 20th century it was rare for architects to work remotely, a practice eased as much by the division of façade from structure as it was by advances in telegraphy and transportation. The design work designated to

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12 The fact that far more complex architectural problems can be worked out remotely is a problem wholly solved by advancements in telecommunication.
13 Burnham appointed five Chicago architects (Adler & Sullivan, S.S. Beman, Burling & Whitehouse, William LeBaron Jenney, Henry Ives Cobb) to design the remaining buildings (none of which were lo
the East Coast men was largely ‘complete’ in sketch form by the end of the last of only two meetings in February of 1891 (the first one being in January of the same year). Though Burnham did request scale drawings they consisted mostly of detailed elevations. Wire messages between Burnham and his team consisted mostly of moderately worded aesthetic suggestions, often intended to establish a hierarchy of each building’s importance relative to the whole.\textsuperscript{14} For example, regarding Cobb’s Fisheries’ building, located on the more informally planned lagoon, Burnham wrote “I wish you would leave the statues off your building… I think you will hurt the effect by using them,” while for Henry Van Brunt’s Electricity Building (located in a place of prominence on the Court of Honor) he encouraged artistic boldness, writing that his building “should be exquisite. No other adjective fits the purpose…. It should possess the utmost refinement and delicacy… and be sumptuous, and in a quiet way, both rich and gay.”\textsuperscript{15} None of the conversations between Burnham and his team would hinder the progress of work. Indeed, it mattered little what the architects designed, as long as their designs abided by the use of standard bay modules and the pre-determined cornice height of 60’—regularities that also allowed Burnham to specify much of the material for the fair even before the adjournment of the second (and last) meeting.

That the “classic motive” was chosen as the unifying architectural language of the Fair had less to do with Burnham’s devotion to the style itself than it had to do with the fact that it was so well suited to the processes and methods of industrial production and corporate
management. In this light, leaving off sculpture or adding more sculpture was not only an aesthetic decision, but more importantly a managerial decision—a redirection of a scarcity of resources towards greater use and effect. The neoclassical style—especially when loosely and openly interpreted was capable of accommodating these types of additive decisions. That is to say there was no decorative ‘logic’ to transgress, a direct contrast to the more ‘organic’ style of Louis Sullivan, which aimed to be a decorative program tied to structural expression. This natural compliance between the neoclassical ‘style’ and corporatized industrial modes of production played a central role in what Louis Sullivan disparaged as the regressive and “viral” popularization of American Neoclassicism. 

Fully separated from their structure, each of the facades of the Court of Honor were able to be drawn independently from one another—simultaneously, in fact in five different offices in three different cities. Their distinctiveness served to sublimate the fact that the Court of Honor was in fact a single object. In the passage below, taken from an interview with Charles Moore, Burnham describes the first meeting of the East Coast men at which they are presenting their ideas for their respective buildings:

All the fellows … were there, each with his sketch or sketches; and one by one they put the drawings on the wall. Hunt, crippled by rheumatism, sat on the edge

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16 In the Autobiography of an Idea, Louis Sullivan famously wrote:

"(T)he virus of the World’s Fair, after a period of incubation in the architectural profession and in the population at large, especially the influential, began to show unmistakable signs of the nature of the contagion. There came a violent outbreak of the Classic and the Renaissance in the East, which slowly spread Westward, contaminating all that it touched, both at its source and outward.... By the time the market had been saturated, all sense of reality was gone. In its place, had come deep seated illusions, hallucinations, absence of pupillary reaction to light, absence of knee-reaction-symptoms all of progressive cerebral meningitis; the blanketing of the brain. Thus Architecture died in the land of the free and the home of the brave.... The damage wrought by the World’s Fair will last for half a century from its date, if not longer."

of the table, and told about his Administration Building, with its dominating dome, expressing the leadership of the Government. The scheme as a whole had begun to take hold of us. Then came Post. George Post had a dome 450 feet high. The moment they all saw the dome you could hear them murmuring. George turned around to the crowd, saying:

“I don’t think I shall advocate that dome. Probably I shall modify the building.”

Charles McKim had a portico extending out over the terrace made extremely prominent. He did not wait, as George had done, but explained that the portico had been under consideration; but that he would withdraw it to the face of the building. The feeling for unity thus manifested, and the willingness of those men to subordinate their individual ideas in order to produce a single harmonious effect, will illustrate the spirit which made possible the artistic success of the Fair. Where they led, others were willing to follow.17

What Burnham fondly presented as a miraculous and noble deference to unity amongst bullish egos, was in fact, already a unity—a single organism designed to appear as separate pieces in agreement—a monumental allegory glorifying the benefits of cooperation—the multiply articulated though still singular body of the corporation. Burnham reinforced what he presented as the manifest “spirit” of the corporation by telling and retelling the tale of the architects’ supposedly effortless collaboration. In truth, Post’s and McKim’s sacrificial lambs—the brazen dome and insistent portico threatened not only the symbolic unity of the scheme, as Burnham suggests, but more importantly, the potential ease of its eventual construction. However, as Burnham understood too well, to tell the story of the Court of Honor as as a managerial decision, would have little effect in stirring the imagination of men or inspiring the general spirit of cooperation (or lack of dissent) that he actually needed to complete the Fair on time. This is not to suggest that Burnham thought of himself as some sort of puppet master, skillfully manipulating a band of pretentious artists. To the contrary, Burnham held the East Coast men,

17 Charles Moore “Lesson of the Chicago World’s Fair” in Architectural Record, Jan 1913. Pg 34-44.
just as he held the work of his late partner, John Wellborn Root in high esteem, as they all possessed a talent for draftsmanship and a refined taste for lavishness that Burnham could never lay claim to. The ‘genius’ of the East Coast men, however had to remain within the constraints of an already determined efficiency and economy— always Burnham’s primary concern. Burnham’s respect for architectural talent in fact aided Burnham in more firmly establishing the division of his practice into managerial and artistic departments. His tight focus on managerial tasks meant that the East Coasters’ decisions were reduced to properly academic choices.\(^\text{18}\)

Which of the ancient orders would be appropriate for which buildings? Should each man select a different order? What were the relative values of an austere Tuscan, graceful Ionic, or a fanciful Composite? Would the span between the columns be bridged by an arch, or support a single, long entablature? What Classical decorative themes would be most appropriate to represent something as modern as electricity? As engrossing as these questions might have seemed, they were literally superficial, as in the end, with the exception of Hunt’s crowning centerpiece, the buildings of the Court of Honor would make no major deviations from the established structural standards. While the East Coast men’s flights of decorative fancy took off hundreds of miles away from the Fair’s site, none would interfere with Burnham’s ongoing preparation of the Court’s ground, foundations and structure. Burnham thus fully engages the modern modes of production, while McKim, Post, Hunt and their East Coast cohort could assume their positions as

\(^{18}\) The architects were not to make calculations of strength or stability, or to work out the engineering problems connected with their structures, but only those problems relating to artistic and economic design. After the preparation of the working drawings their work was to cease, except that they were to give attention to the development and execution of their designs sufficient to assure themselves and the Committee on Grounds and Buildings that their designs were executed in accordance with their true spirit. From Report of the President to the Board of Directors of the World’s Columbian Exposition. Pg. 6-9
the supposed inheritors of a noble and Ancient art. Long after the Fair would close its gates this separation would be positively recast as a form of both artistic and intellectual freedom. It was in this way that this band of architects were made the unwitting pioneers of a newly autonomous discipline. They were, in other words the new and powerless captains of American high culture.

But even Burnham’s seemingly guileless creation of an “autonomous” discipline was not his greatest innovation relative to the lesson of a “purely architectural achievement.” Architectural purity can be thought of in an entirely different sense altogether. Though the sense that will be presented here is certainly (and intentionally) a misreading of what Burnham meant by that phrase. Perhaps the clearest demonstration of Burnham’s managerial genius was his isolation of a practice that focused on the architecture of architecture.

Figure 2.1 Map of the Fair showing three distinct siting strategies: The Court of Honor, the Lagoon and the Midway Plaisance
To illustrate what is meant by the “architecture of architecture,” we need to return to the plan itself. Though the site plan is largely attributed to Frederick Law Olmsted, it was Burnham who determined the distribution of sites and who selected the architects to execute the buildings. While it is often pointed out, as was pointed out above, that Burnham awarded the buildings of the Court of Honor to East Coast Men, it is rarely pointed out that he awarded the buildings around the lagoon to an almost exclusively local, Midwestern cohort of architects including Louis Sullivan (Transportation Building), William Le Baron Jenney (Horticultural Building), Solon S. Beman (Mines and Mining), Henry Ives Cobb (Fisheries), Holabird and Roche (Stock Pavilion), Francis M. Whitehouse (Festival Hall), and Charles B. Atwood, then working for D.H. Burnham & Co., who besides designing the only permanent building on the grounds (the Palace of Fine Arts, now the Museum of Science and Industry) also designed the Peristyle—the crowning moment of the Fair, along with over 60 other major and minor structures spread throughout the main grounds and Midway.

It is around the lagoon that Burnham took full advantage of the possibilities of Olmsted’s picturesque plan, as an organizing feature that graciously accommodated an extraordinary level of heterogeneity. Unlike the buildings of the Court of Honor, these buildings did not have to abide by the same structural module or uniform cornice height. As these architects were local, they were able to visit the site with greater, and even daily frequency. 19 Thus, for the forty or so structures within the main grounds that did not have frontage on the Court of Honor, Burnham allowed and even encouraged greater diversity of expression. Sullivan’s transportation building

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19 The notable exception to this was W.J. Edbrooke of Washington D.C. who relocated to Chicago for the duration of planning and building and designed the American Indian School, Army Hospital, Government Lighthouse, Heliograph and Transit House, Life-saving Station, Naval Observatory, United States Government Building and Weather Bureau.
then—often hailed as a sort of principle affront to the machinic homogeneity of the White City can thus be seen as a part of, and not an objection to Burnham’s system—*even if* Sullivan considered his work as an rejection of American Neoclassicism, it was subsumed within Burnham’s organizational logic. It is perhaps because of the distracting ‘opposition’ to the White City presented by the Midway Plaisance—a collection of unrelated structures that gave way to a sort of freewheeling Coney Island style delirium, that the diversity of the architecture surrounding the lagoon (a function of local control) is often overlooked as a designed thing in and of itself. It is crucial to understand, however, as it allows us to observe the subtle ways in which Burnham treated managerial oversight itself as something that could be designed.

Burnham viewed each of these three forms of organization as serving a particular managerial function. The architecture (i.e. the structure) of the Fair is thus one that supports heterogeneous ways and modes of delivering architecture, demonstrating that Burnham was not interested in control every aspect of design, as much as he was interested in being able to determine how much control was needed in order to efficiently deliver a building. It was in this way that Burnham demonstrated not only his bureaucratic virtuosity, but that spatial practices, even those thought of as “purely architectural” also served as important managerial techniques.

**Lesson 2: “The Whole Property” or The Island and Its Exterior**

For the duration of the Fair’s construction and operation it was administered as a sort of semi-autonomous state. It was not, however a self-sufficient state. To the contrary, almost nothing, save for the heavily manipulated water and earth re-moved and re-placed around the grounds actually came from within the circumscribed territory itself. It was a territory, in other words completely dependent upon and created in response to the conditions exterior to it. Its
enclosure allowed Burnham to temporarily disentangle himself and the Fair from the increasingly volatile world outside of it.\textsuperscript{20} These were conditions with which Burnham was intimately familiar. In the wake of the Haymarket Affair, an event that would forever mark Chicago as the nation’s center of labor struggle, Burnham and Root were commissioned to design the First Regiment Armory, which Root fashioned as an imposing Richardsonian fortress. The site for the Armory was strategically located between Chicago’s downtown and a ten block stretch of Prairie Avenue known as “Millionaire’s Row,” then home to Chicago’s wealthiest citizens. At precisely the same moment that Burnham’s engineer, E.C. Shankland was designing the trusses for the impressive spans of the Exposition’s Liberal Arts and Manufactures buildings, he was also designing the trusses that spanned 115 feet across the Armory floor, which contained a drill hall for the local militia that would double as an evacuation space for the well heeled citizens of Prairie Avenue in the eventuality of an eruption of class warfare, or “internal insurrection” (to use the term preferred by the builders of the Armory).\textsuperscript{21} The very conditions that fed Chicago’s volatile inequality, necessitating the formation of its first private militia, were

\textsuperscript{20} Brands goes on to list the crises, which included: An international “great depression” from 1873 to 1896, which afflicted all industrial nations with chronic overproduction and dramatically falling prices, averaging one-third on all commodities, which led to the most drastic deflation in the memory of man; a severe Wall Street crash in 1873, which triggered a round of bankruptcies and failures in the United States, six thousand businesses closing in 1874 alone, and as many as nine hundred a month folding in 1878. A perilously uneven business cycle continued for more than twenty years, affecting all sections of the economy: constant market uncertainties and stiffening competition at home and abroad for business; inexplicable surpluses and declining world prices, together with tightening credit for farmers; wage cuts, extended layoffs and irregular employment, and worsening conditions, even starvation for industrial workers. Recurrent cycles of boom and collapse seemed as inexorable as the quickening pace of technological innovation. Thus, even in the shadow of glorious new machines displayed at the Fairs, the public sense of crisis deepened. H.W. Brands, \textit{Bound to Empire}, New York: Oxford University Press, USA, 1992.

\textsuperscript{21} It is perhaps because of the success of the Fair that the Armory was never used for these military purposes, and was instead used to host events such as the famous Armory Show, which after being hosted at New York City’s 69th Regiment Armory moved to Burnham and Root’s First Regiment Armory building.
exactly the conditions that made Chicago most fit to host the Fair; namely, its explosive growth, its industrial productivity, its commercial activity, its concentration of both wealth and abundant supply of cheap labor. The location of the First Regiment Armory, however was an imperfect system of control. There was no way of knowing where in Chicago’s sprawling city that violence might erupt. Haymarket Square, for example, was located a couple of miles away from the new armory. Fearing that he may himself have to face “internal insurrection” at the Exposition, Burnham built a perfectly secure system by sealing an entire protected area within the Fair’s borders, which was surrounded by a tall fence punctuated by well guarded sentry positions.

These positions were manned by members of the Columbian Guard, a private organization that combined the “duties of the soldier and police.” The Guard’s all white staff, made up mostly of military men and supplemented by a few college students was led by the Civil War veteran, Col. Edmund Rice of the U.S. Army, who answered directly to Burnham. With a force of close to

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23 As Ida B. Wells noted in her pamphlet “Why the Colored American is not in the World’s Columbian Exposition” there were several African American applicants to the Columbian Guard. One of the applicants, William Crawford was falsely dismissed by Rice on account of the fact that he did not meet the minimum chest measurement, which Crawford knew to be incorrect. About the incident, Wells wrote the following:

> It was merely an indication of the plan and policy of the Exposition Management that no notice whatever was taken of the respectful but, at the same time, convincing appeal made by Mr. Crawford. It had been determined that no colored man should be employed on the force of the Columbian Guards and that determination was not to be varied. The fact that one colored man had succeeded in discovering the contemptible duplicity and falsehood used to compass that purpose, made no difference in the plan, nor affected in any way its promoters. Theoretically open to all Americans, the Exposition practically is, literally and figuratively, a "White City," in the building of which the Colored American was allowed no helping hand, and in its glorious success he has no share.

Wells went on to expose the hypocrisy of the Fair’s management, writing that despite the fact that the Fair employed thousands, “only two colored persons could be found whose occupations were of a higher grade than that of janitor, laborer or porter, and these two only clerkships.” (In fact the janitorial staff was exclusively black). It was, Wells wrote “(o)nly as a menial (that) the Colored American (was) to be seen — the Nation’s deliberate and cowardly tribute to the Southern demand to ‘keep the Negro in

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2500 men, it was larger than the police forces of either New York or Chicago. In order to render
the Guard sufficiently conspicuous, relief forces were arranged so that at every half-hour during
the twenty four hour clock an organized body of men, under the command of an officer was
marching through some portion of the grounds en route to their posts or returning to their
dormitories. The often overzealous Guard was routinely caricatured in the Press and on one
occasion the editors of the Tribune, exasperated by a near constant feed of stories of abuse
published, of its own editorial volition, a formal warning directly addressed to the Guard.  

Despite being heavily criticized, Burnham considered the Fair’s border and vigilantly
policed interior as essential to the timely completion and orderly operation of the Fair, writing
that the fence and Guard “proved entirely efficacious to give us tolerably peaceful control and
steady progress,” by making it “impossible for men [union organizers] from intimidating
workmen [into organizing].” As another clear signal to labor organizers, Burnham hired John
Bonfield, commander of the police force in the Haymarket Riot, to head the secret service
contingent of the Columbian Guard—plain clothes detectives that mingled amongst the
employees and visitors undetected.  

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his place.” Still, the management insisted on celebrating the “progress” of the Negro by observing
August 25th as “Colored People’s Day.”
24 Members of the guard are cautioned not to make arrests except when absolutely necessary, and not
for trivial offenses where a cautionary warning would answer the purpose. In many cases the tone and
manner in which guards address parties tend to invite resentment, and loss of temper on both sides
results in arrests which could have been avoided… Hereafter guards will be held responsible for all
unnecessary arrests and their manner of effecting same. “Warning to Columbian Guards” in The
Chicago Tribune, May 13, 1893.
25 Daniel Burnham, Final Report of the Director of Works of the World’s Columbian Exposition., Chicago,
1894. Pg. 62
26 For a thorough study of labor conditions at the fair see David Silkenat, “Workers in the White
City: Working Class Culture at the World’s Columbian Exposition” in Journal of the Illinois State Historical
Society. Vol.10 4 No. 4 (Winter 2011), 266-300
Figure 2.2 Members of the Columbian Guard in the uniform modeled after that of the Austrian military.

Among many other stabilizing advantages, securing the borders and policing the Fair’s interior greatly enhanced Burnham’s ability to tightly calibrate his labor needs to his labor force. Worker turnover was frequent, and though many left voluntarily on account of both poor and demanding working conditions, many were fired when weather or materials delays slowed the pace of work, while many more were hired when the opposite conditions prevailed. This fluidity in hiring and firing is remarkable considering that for the duration of the Fair’s construction and operation, it was one of the country’s largest employers. This was made possible on account of the fact that the Fair was well and widely publicized across the country and therefore attracted thousands of unemployed itinerant workers from across the country, then commonly referred to as “tramps.” Tramps, as American labor historian Todd Depastino wrote were “both the victims and agents of the economic system,” laborers who clung “beneath the speeding freight train of industrial capitalist expansion,” (and its attendant implosions). 27 The internal stasis and perceived success of the Fair’s ‘temporary’ economy was the result of the militarized exclusion of the forces that, in Burnham’s view, menaced the Fair’s progress. Within this heavily secured miniature state,

the manifold benefits of a corporately managed industrialized economy were placed on prominent display, unaccompanied by the voices that challenged it or the effects that threatened to ‘distort’ it (but were in fact immanent to it). The effect of the success of the Fair, however was that Burnham was able to stage a simple case for the general exclusion of those voices from a national conversation. That is to say while the economic conditions of the Fair were limited, the power to influence the world outside of it was not. Excluding the voices of dissent, if only temporarily, and only within an isolated territorial frame was an effective means of advocating for their elimination, as these ‘experimental’ conditions allowed Burnham to provide concrete evidence of the potential benefits of their forceful suppression— providing an object lesson generally applicable outside of the Fair’s boundaries.

The Fair’s tight territorial frame allowed Burnham to closely monitor not only his labor force, but also his budget, material supply, revenue generated, and profits earned. This creation of an effective sub-territory of Chicago, a territory in which existing physical and legal conditions were virtually suspended, was something unprecedented in American jurisprudence.  

28 Within the boundaries of the Fair the rule of law was replaced with a single and concrete goal — that the Fair was made manifest. This came at a time when the Captains of Industry, viewing American success as the sole product of their own manufacture, became increasingly disappointed with what they viewed as the inefficacies of American government. The Exposition, as a bounded territory managed by a private corporation was just one example of a broad effort led by leaders of American corporations to stake out distinctively private spheres

28 In all likelihood, this was without precedent. One might compare the Fair’s territorial limits to those of the American utopian communities that flourished between the mid-nineteenth and early twentieth century, but these communities, for the most part were experiments in socialist living. Perhaps the closest example would be the city of Pullman, Illinois, or covenant or gated communities.
free from the powers of the state. The Exposition however, was never intended to remain a
firmly bound project. Burnham’s almost immediate turn towards city planning, a practice usually
supported if not outright sponsored by corporate forces unleashed, onto the figure of the city at
large, many of the legal, institutional, and managerial forces developed on what was at first
designed on the separate, one might say utopian corporate territory of the Exposition.29

Lesson 3: The “One Man” and The Corporation and its Reorganization

In September, 1890, an organization had been formed; John Root was made
consulting architect, Olmsted consulting landscape architect, and I was named
chief of construction. My commission was drawn by (Edward T.) Jeffery, then
president of the Illinois Central, who acted as chairman of the Grounds and
Buildings Committee. He placed everything under my control, and fixed it so that
all others must report to me direct, so that they could make no communications
save through me. It was urged by men who knew more about organization than I
did at that time, that it was absolutely necessary to have a chief.30

In an interview with Charles Moore, published shortly after Burnham’s death, Burnham recalled
the beginnings of the Exposition. He revealed that his first lesson was that he should run the Fair
as one would run a corporation, an organization that ‘naturally’ benefitted from centralized and
hierarchical control. The particular organization that Burnham was referring to above was
eventually incorporated in the spring of 1890, licensed by the State of Illinois and named the
“World’s Columbian Exposition Corporation.”31 This was new. The last exposition held in the

29 This is perhaps best demonstrated by the fact that once Burnham’s works outside of the confines of
the Fair, his plans required significant changes to existing law. One of the most emphasized features of
Burnham’s 1909 Chicago Plan—his last, was a section titled the “legal aspects of the plan,” in which an
attorney for the Commercial Club (which commissioned the Plan) isolated which of the plans ideas
would require additional legal authority. This included most importantly, increasing current debt limits in
issuing bonds.
30 Charles Moore “Lesson of the Chicago World’s Fair” in Architectural Record, Jan 1913. Pg 34-44
31 One of the first steps taken by the committee was the formation of a company with an authorized
capital of five million dollars, divided into 500,000 shares of $10 each. On August 14, 1889, a number of
commissioners were authorized by the Secretary of State of Illinois to take subscriptions to the capital
United States—the 1876 Centennial Exposition in Philadelphia was an initiative spearheaded by academics and led by the guiding hand of cultural institutions. Its eventual operation was governed by a Congressionally appointed commission, made up of one representative from each state and territory. The Exposition was funded in roughly equal parts by subsidies from the city of Philadelphia, the state of Pennsylvania, by a loan from the federal government and eventually by public sale of stock. Though the exposition received close to 10 million visitors (Chicago received over 27 million), it was considered, by many to be an unmitigated financial disaster, an outlook underscored by the fact that Congress sued the Commission for failing to repay their loan (which the Commission viewed as a gift), a case that was decided in the Supreme Court, which ultimately forced the Commission to return the funds to Congress. Despite the financial failure of Philadelphia, there was widespread interest in marking the 400th anniversary of Columbus’ landing with an even grander exposition. Unlike the Centennial Exposition there was no clear logical location for the event. Civic leaders in St. Louis, New York City, Washington D.C. and Chicago all expressed interest. The decision fell upon Congress to select the city. In an attempt to avoid another potential financial quagmire, the decision was largely based on the promises of would be financiers. As was the case in New York, Chicago’s captains of industry promised large sums of money. What most impressed Congress, however was the organization and demonstrated popularity of Chicago’s bid—the result of the collective work of an already stock of the company under the name of the “World’s Exposition of 1892.” In the Final Report this organization is referred to as “preliminary organization.” By April 9, 1890 the capital stock had been fully subscribed, and articles of incorporation were issued, the object of the corporation being set forth as “the holding of an International Exposition, or World’s Fair, in the city of Chicago and State of Illinois, to commemorate, on its four hundredth anniversary, the discovery of America.” Report of the President to the Board of Directors of the World’s Columbian Exposition. Pg. 6-9

32 Philadelphia contributed $1.5 million, Pennsylvania $1 million, while Congress appropriated $1.5 million. The Commission was also authorized to sell stock at $10, raising $1.7 In stock.
well formed organization, the aforementioned World’s Columbian Exposition Corporation, hereafter “the Corporation.” As a means of proving public support for the Fair, the Corporation had issued five million dollars in capital stock, selling shares to nearly thirty thousand stockholders “…drawn from every walk of life” and “…given out of the abundance of the capitalist, the competence of the business man of moderate means, and the salaries and wages of the poor, all being animated” not by a promise of a return on their investment, but rather “by a public spirit and a feeling of pride in their city.”

The corporation was not the Fair’s only governing body. The management of the fair, would be a task shared between the Corporation and the World’s Columbian Exposition Commission—a Congressional oversight committee, led by a team of local civic leaders along with two representatives from each state and territory, appointed by then President William Harrison. In general, the Commission, representative of the Fair’s public interests was charged with managing the Fair’s content and with conveying the “progress of the nation,” while the Corporation, was charged with managing the Fair’s construction and operations, closely tending to the issue of the Fair’s profitability. In practice this was not as straightforward a division of responsibilities as either party would have liked. Burnham made no secret of what he thought of the Commission, which as he informed his close friend and biographer Charles Moore, had “a fine opinion of itself and insisted on knowing about everything that was done and why.” All decisions regarding the Fair, to Burnham’s great annoyance had to pass the approval of both the Corporation and the Commission. Conflicts, starting with an early and well publicized feud over

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33Report of the President to the Board of Directors of the World’s Columbian Exposition. Chicago: Rand McNally & Co. 1898. Pg. 13
the Fair’s site, resulted in serious delays, the consequences of which became more dire as the deadline to the opening approached.

As the construction of the Fair progressed, Burnham grew increasingly frustrated with what he viewed as pointless and serious delays due to the purposeless deliberations of the Commission. Thus, at his urging, the administration was subjected to several stages of reorganization. Reorganization, a term and process that Burnham borrowed from an emerging set of standard corporate managerial practices, is a process designed to revive a financially troubled or bankrupt firm. Also known as “restructuring,” reorganization is an attempt to extend the life of a company facing bankruptcy or other financial trouble through the restructuring of corporate organization, done with an aim towards minimizing the possibility of past situations occurring.

According to economist William Lazonick, the structure of the corporation (especially when subject to reorganization) is the result of an evolutionary process that reflects strategic investment decisions to serve particular markets, engage in particular activities, and produce in particular locations. Generally reorganization occurs when the corporation is not willing or able to utilize the capabilities and assets that are the legacy of past decisions. The process of reorganization, in other words enables corporations, despite their increasingly large scales to weather dynamic economic conditions and to cater to increasingly diverse markets. The process of reorganization meant that at any one time the structure of the corporation was essentially ad-hoc, informal and subject to dramatic transformation. The flexible logics of reorganization placed the survival of the corporation above every other value, which meant that workers,

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managers, suppliers, wages, product quality, even the very nature of what a company produce, that is to say every possible component of a corporation was subject to modification or elimination in order to support the *life* of the corporation itself.\(^\text{35}\)

![Figure 2.3 The “Third Period” of the Fair’s organization, showing the final “Reorganization of Executive Authority” from the Final Official Report of the Director of Works of the World’s Columbian Exposition.](image)

In general, following Burnham’s reorganization, the Commission remained more horizontally organized (divided by department, i.e. electricity, transportation, fine arts &c) while the Corporation became increasingly hierarchical (organizing itself in terms of tasks, i.e. operative forces, clerical forces, design forces). Despite this reorganization, disagreements between the Commission and Corporation persisted. Brandishing the threat of a quickly approaching

\(^{35}\) In this sense, the Exposition corporation was unlike other corporations in that its goal was not to lead a profitable existence in perpetuity, rather it existed to turn a single profit and to achieve a single goal— that goal, however was intended to be a general demonstration of the benefits of corporate forms of power.
deadline, Burnham proposed that the Corporation and Commission reorganize in the form of a single “Council of Administration,” relieving him of the task of having to answer to two often clashing governing bodies. At this point, Burnham also broadened his executive powers by creating a new title—“Director of Works.”

There shall be an officer to be known as the director of works, to be appointed by the World’s Columbian Exposition, who shall have the employment (subject to the approval or confirmation of said council of administration), and general charge of all the working forces within the grounds of the exposition necessary to the maintenance of order, the protection of property from fire and other destructive elements, to supply heat, power, light, water, and sewerage, the care of the grounds, and all the service necessary to the practical administration of the exposition inside the grounds; subject, however, expressly to the control of the director general, in so far as such forces and service may be necessary for the installation of exhibits, the protection of the rights of exhibitors, and the care and custody of their exhibits to the end of the exposition. In all matters the director of works shall be under and subject to the control of the said council of administration.\(^\text{36}\)

Under the conditions of the reorganization all orders reached Burnham in the form of a single directive. Though this quickened matters, infighting within the Council resulted in further delays. With only eight months before the opening, a sense of urgency began to grip even the often reticent Commission, allowing Burnham to engineer another shift in power, which he referred to as the “Reorganization of Executive Authority.” This “reorganization” not only put Burnham at the top of the executive pyramid, but also greatly expanded his executive powers. His decisions were subject only to the veto power of the Director General, who at that point, under the pressure of a fast approaching deadline operated as Burnham’s rubber stamp. Burnham’s final seizure of power was met with no evident resistance.

\(^{36}\) United States, Message From the President of the United States, transmitting the annual report of the World’s Columbian Commission and other papers relating to the Exposition. Washington: Government Publishing Office, 1893. Pg. 12
The bottom half of the diagram shows the final organization of the Fair’s governing body. This final redrawing of the diagram of ‘administration’ was, in a sense a limited suspension of the power of a political body—the Commission, by the power of an economic body—the Corporation. Burnham’s assumption of centralized power in the name of the Corporation does not happen as a matter of declaration (though he does, eventually affirmatively declare it), but as a matter of course (because he *must* assume power in order to complete the project in an efficient manner). His authority appears to emerge as a result of the logics and contingencies of the project itself. The first three stages of organization (wherein the Commission and Corporation supposedly wield equal but different powers) are functionally different from the last in that they describe an idealized balance of interests, while Burnham’s final organization is purely instrumental—a technique of efficiency realized in full. Burnham’s seizure of power is done in the name of the “economic and efficient” operation of the Fair, a point that he highlights in the conclusions of his Final Report, where he wrote, with an almost audible sense of exasperation about the failures of the Fair’s initial arrangement of “dual authority”:

That dual authority such as was maintained at… Chicago is discouraging, and productive of conflict and inattention to duty. Under it unity of purpose or design is not possible, and the consequence is loss of time, loss of money, and disjointed arrangements from beginning to end.  

Despite only reaching this final form of administration through what was an apparently exasperating process, what Burnham discovered, or perhaps already knew, was that these rounds of reorganization were not only an effective way of dealing with crisis in all forms, they were a

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means of rendering that crisis productive. Reorganization reveals the various ways in which the corporation took on the features of an evolutionary development. Reorganization was a survival technique; corporations would either adapt and flourish or wither and die, but one thing was certain—a fight to survive was placed above all principle or stated value.

Examining the history of the Exposition through the lens of reorganization allows us to move beyond a tired analysis of the Fair’s formal unity, often used to confirm a desire for “unitary control over (laissez faire) development,” usually described as a sort of architectural analog to Theodore Roosevelt’s assertion of government’s modern regulatory role. In order to observe the rise of administrative politics of the U.S. government, however one does not have to resort to analyzing the Fair’s triply revised organization chart. There is enough evidence of reorganization provided in the plan itself, though one will not find it in the Court of Honor, which offers itself up as the object of analysis, *par excellence*. A myopic focus on the Court of Honor, only serves to confirm what Burnham intended to communicate—to “express the leadership of the Government,” through the ‘unified arrangement’ of the Court of Honor, and a deferral to Hunt’s symbol of Administration. It does not serve to reveal his larger goals or intention, which was to construct a framework through which he would be able to most efficiently execute his plan.

To have formally expressed a submission to Hunt’s symbol of “Administration,” (as one might recall from Lesson 1) was not evidence of the corporation’s assent to government authority. In fact the East Coast Mens’ deference to Hunt, the “crippled” senior member of their tribe was little more than a symbolic act of respect. If we turn to what was actually happening at the Fair, we would observe that the Administration building was *not* the actual government building. In fact, the U.S. Government building did not even have frontage on the Court of
Honor, rather it was casually sited between lake Michigan and the Lagoon, where views toward it were interrupted from many angles by the Japanese Ho-o-den, and where it was dwarfed by its massive neighbor, the Manufactures Building, and where it is trivialized by its position next to the Fisheries building—an equally grand building dedicated exclusively to fish.

If we are to read this positioning symbolically, as we are in fact called to do, this organization articulates a weak position for the U.S. government, which wanders bereft, unsure of its position among the sheer mass of stuff on display at the Fair. If we are to continue to follow this symbolic narrative to its storied end—it was administration itself—and not government per se that was placed, quite literally in the seat of honor and power. Administration was in fact placed in a position where it was poised to supplant the “leadership of Government.” In fact, because the event itself, in Burnham’s mind, was only delayed by the follies of government leadership, and only achieved on account of the skill of men in corporate leadership, what may have been a subconscious marginalization of the U.S. Government, proves to be a full blown argument against it.

One of the primary organizational features of corporate leadership of course, is its uncompromising hierarchy—its lack of delaying checks and balances. Burnham once again
confirmed the advantages of corporate managerialism over democratic governance by demonstrating that the Fair’s success wholly depended upon the fact that its execution was *eventually* in the hands of a single man, though Burnham does not fail to point out that had this hierarchical arrangement been in place from the beginning, the “work would have been ready earlier and have cost much less, and the beauty and practical efficiency of the parts would have been enhanced.” Success then, if measured by the fact that the Fair was efficiently, managed effectively, and was able to turn a profit was not only an argument for the efficiency of the corporation, it offered proof that it was the corporation alone capable of achieving such monumental feats.

In a qualifying statement, Burnham relented that the “one man” should “be under a council,” and that that council “should have veto power over him.” He went on to stipulate, however that this council should “…be made up of men familiar with large organizations, railways, telegraph lines and extensive manufacturing establishments.” Effective autocratic leadership, in other words, could only be yielded from the corporate sector, as it was private individuals who, in Burnham’s opinion could be credited with America’s material progress. As an attempt to demonstrate his impartiality Burnham wrote in his Final Report that the corporation was organized “happily (giving) no special attention” to the “subject of politics.” Though in this statement he was almost certainly referring to a realpolitik, what Burnham in fact offered within the confines of the Fair (but as a proposal generally applicable outside of it) was managerial administration as an alternative to democratic governance. In effect the Fair marked the beginning of a slow process of erasure of the body politic as the object of governance. Burnham’s Fair offered instead a *thing* to be administered.
If the claim that Burnham offered managerial administration as a wholesale alternative to politics (especially within, but certainly not limited to the Fair) strikes one as overstated, I offer a scrap of additional evidence above. It was a short missive of thanks addressed to Burnham from his friend Jacob McGavock Dickinson, then general counsel for the Illinois Central Railroad Company, thanking Burnham for gifting to him the book *Anglo Saxon Superiority*. While the book, written by the French Social Scientist Edmond Demolins is mostly forgotten today, it enjoyed “striking success” in the immediate aftermath of its publication. The argument of the book was that Anglo-Saxon superiority over all nations (an accolade that Demolins measures in terms of the vigorous success of Anglo-Saxon economies) was due to the Anglo-Saxon’s

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38 I was unable to locate any records of how many copies of the book were published and sold, the estimation of its “striking success” is from a review written two years after its first date of English publication. Frank A Fetter, “Review: Anglo Saxon Superiority: to What it is Due” in *Annals of the American Academy of Political and Social Science*, Vol. 14 (Jul., 1899) pp. 117-120
excellence in “independence, enterprise and practical judgment.”39 This, Demolins argued was not only a desirable characteristic in business leaders, but was a skill transferrable to the administration of state affairs. Tellingly, it was not long before Dickinson himself heeded the book’s siren call of duty by following Burnham’s footsteps into the realm of ‘public’ service, finding himself in the Philippines only five years later on official business as Taft’s new Secretary of War. It is here that we return to the Philippines, and to a discussion of the full transfer of managerial techniques developed at the Exposition to the governance of the American colony.40 Though Dickinson would not remain in his position long, leaving not long after submitting his special report on the Philippines, there would be many men like him—men of the corporation who increasingly occupied what were often appointed ‘public’ positions. This was a new species of administrative experts whose role was not to govern the demos, but to administer the state—an assemblage composed not only of people, but of machines, materials, transportation routes, boundaries, earth, water, weather, resources, officials, police, agricultural bounties of a scale never before seen—all of which had to be managed efficiently in spaces that extended well beyond the Exposition’s limits.

Lessons Learned: Burnham’s Protégé William Cameron Forbes

One such administrative expert was William Cameron Forbes, who by many measures was the most consequential American Governor General of the Philippines. As it so happens

39Demolins laments that the relative weakness of the French is due to its faulty educational system, itself the result of a faulty social ideal and organization of the French nation as a “communistic formation.” The communistic formation, which is opposed to the Anglo Saxon “particularistic formation” has the tendency to rely “not on the self, but on the community,” while the “particularistic formation” does the opposite, by focusing on the development of the self. Demolins extends this argument by arguing, as Burnham does for the advantages of private knowledge in addressing ‘public’ concerns.

40Today, the idea of running government like a business has become a fully naturalized ideological trope of ‘conservative’ politics, one unabashedly devoted to liberating apparently benevolent market forces.
Forbes was also an acquaintance of Burnham’s. The pair was first introduced by Forbes’ uncle, Malcolm Forbes, an old friend of Burnham’s. Following their introduction, the younger Forbes asked Burnham to write him a recommendation as a part of a portfolio of letters he submitted as part of his application to be a commissioner on the Panama Canal Commission. Though only briefly acquainted, Burnham wrote a firm if comically brief endorsement, stating in a letter of just two lines that on account of his character (which, only being briefly acquainted, he could not in truth vouch for) and on account of his connections (which he could) “no one in the country is better fitted to be United States Canal Commissioner.” Indeed, it was Forbes’ personal connections that would prove central to his work in the Philippines. Despite Burnham’s unqualified recommendation, Forbes did not get the Panama job. Theodore Roosevelt, however impressed with Forbes’ connections, and especially fond of “Harvard men,” never forgot the ambitious young man.

Though largely lost to history memory, William Cameron Forbes was a man of a remarkable American pedigree. Descended from a family of powerful Boston Brahmins, his father, William Hathaway Forbes had been a founder of the Bell Telephone Company, his maternal grandfather was Ralph Waldo Emerson. His appointment to the Philippines, in a way followed the path of his paternal forbears who earned their first fortune as China merchants, trading mainly in tea, silver, furs, and opium. Still in his twenties, Cameron (as he was called) played a central role in running the family bank. He was, however unsatisfied with his inherited wealth and position and worried what a life of simple leisure might say about his character. This need to prove one’s self-worth was the outgrowth of a stilted form of class consciousness; a pathology peculiar to American men who found themselves in powerful executive roles in business and/or in government. Like Roosevelt, another man of born privilege, Forbes sought to
re-construct his identity through the positive adoption of a “strenuous life,” —which amounted to constantly seeking out tests of physical strength and moral character as a means of occupying the myth of the “self-made man.” On February 1st, 1904 Roosevelt would provide Forbes his opportunity, by summoning the young banker and businessman to Washington to offer him the appointment in the Philippines.41 Thrilled at the prospect, Forbes wrote a letter of thanks to Burnham, informing him of the scope of his new position. He added that he was “quite as pleased with this as I should be with the Canal.”42 In a letter of congratulations Burnham, (who had not yet been awarded the Philippines job) wrote back, “the work there… is constructive in a higher sense than is that at Panama, and you will be responsible and independent in your work. Now young Cameron! We shall see what you are made of.”43

Despite Forbes’ attempt to escape the apparently enervating privileges of his provenance, it was precisely his business connections and experience that both Taft and Roosevelt believed would help to ensure the colony’s economic success. The most important of these connections would of course be Burnham himself, as in the end it was through Forbes that Taft secured direct contact with Burnham. Originally, Taft had asked for a landscape architect, so naturally Forbes recommended Frederick Law Olmsted Jr., the only landscape architect on the Washington Park Committee. Over-commitment, however prevented Olmsted from accepting the job. Forbes then asked Charles McKim to consider the job, at the same time that he solicited additional suggestions from Burnham, at which point Burnham intimated that he himself would be

41 A strange hybrid office that combined the functions of peacekeeping with the creation of economic opportunity on the archipelago. Why this combined office made sense was never actually specified, materially however this meant that for the purposes of establishing favorable commercial conditions, all police and native military forces would be at his immediate disposal.
42 Forbes to Burnham, Feb. 17, 1904.
43 Burnham to Forbes, Feb. 24, 1904.
interested. McKim also responded in the affirmative, but it was only upon receiving Burnham’s reply that Forbes hurriedly wired Secretary Taft, in order to arrange an interview. Following the meeting Taft was quickly convinced that Burnham was the right man for the job. Forbes reinforced his preference for Burnham in a letter to Taft in which he wrote that he “(p)ersonally… prefer(red) Burnham… as he has the business ability to get things done and provides from his organization the artistic ability of the special kind wanted.” Besides, it probably assured Taft that Forbes’ and Burnham’s familiarity would help to ensure the eventual success of the plan.

Forbes was the perfect accessory for Taft, who as a lawyer and son of a modestly successful politician knew, according to his own estimation, very little about business. Taft was Taft’s answer to what were widely viewed as the disappointing business conditions of America’s new colony. Taft, whose greatest ambition (before his path to the presidency was made clear) was to be a Supreme Court justice, viewed the establishment of the Philippine court system to be his greatest achievement as the Governor General. Though Taft new little to nothing about the inner workings of business, he understood it to be a necessary and central imperative of American colonial activity. He furthermore understood the tectonic shifts in the organization of government itself, transformations that were forging interlaced relationships between government and corporate business interests. Attracting, establishing, and developing

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44 Taft’s passion being the law, his ultimate ambition was to serve as an associate justice of the Supreme Court—a position that Roosevelt offered in 1902, which Taft turned down on account of the fact that he felt that his work in the Philippines was too important to abandon. Taft was eventually appointed to the Supreme Court by Warren G. Harding in 1921.

45 One can see in the plan that the judicial branch of government is left relatively untouched, it in fact takes on a new integrity in Manila that it does not enjoy in L’Enfant’s plan or in Burnham’s renovation of that plan. This is largely on account of a new emphasis on “fairness.” While the federalization of government wildly altered the balance of powers,
these new relationships accounted for much of Burnham’s work in Chicago and Forbes’ work in the Philippines. Though it was not explicitly a part of his job description as Commissioner of Commerce and Police, Forbes took it upon himself to be the plan’s executive administrator, and as such tasked himself with creating the conditions for the plan’s efficient execution. These conditions were ones that Burnham found to be essential in Chicago, namely the almost total absence of protracting democratic processes, efficiently run bureaus (under strong executive control), the militarily secured availability of material resources, and an assured availability of cheap labor, conditions especially easy to secure under colonial circumstances.
Chapter 3: Reorganization: A Burnhamesque Exercise of Power

Arriving to the archipelago in August of 1904, Forbes’ first task was as chair of the “Reorganization Committee.” In the Philippines reorganization would not be, as it was at the Fair, presented as the outcome of an evolutionary process, but would rather arrive as a fully developed technique of managerial governance. Forbes was specifically marked for the task on account of his having had “successful experience in financial reorganization of electric roads and similar business in the U.S.”¹ Most of the Committee’s recommendations were adopted by the Philippines Commission and incorporated in Act No. 1407, known colloquially as the “Reorganization Act,” made official on October 16, 1905.² While the explicit goal of the committee was to “increase the government’s efficiency” and reduce its expenses “to the lowest possible limit,”³ reorganization, in fact had a far more radical ambition, and that was to transform the nature of colonial governance itself—to model it along the lines of a corporation. It was in the Philippines, in fact, that what historian Martin J. Sklar termed the “corporate reconstruction of American capitalism” could perhaps best be observed, unobstructed by a democracy that would encumber the work of its pro-corporation protagonists. Just in time for Burnham’s arrival,

² The resulting reorganization and administration of the insular government was as follows: The Governor-General retained under his executive supervision the Executive Bureau and the Bureau of Civil Service. The Department of the Interior embraced the Bureaus of Health, Lands (newly created to administer the acquired friar lands and other public domain), Science, Agriculture, Forestry, Quarantine Service, and Weather, with general supervision over the non-Christian tribes except the Moros, and over Philippine fisheries. The Department of Commerce and Police embraced the Bureaus of Constabulary, Public Works, Navigation, Posts, Port Works, and Coast and Geodetic Survey, with supervision of corporations except banks. The Department of Finance and Justice embraced the Bureaus of Justice, Audits, Customs, Internal Revenue, Insular Treasury, and the city of Manila, together with the general supervision of banking, coinage and currency.
the insular government was reorganized in a manner similar to Burnham’s “Reorganization of Executive Authority,” at the Fair. And just as it was at the Fair, in the colony, the Reorganization Act served to eliminate protracting democratic processes by means of centralizing executive power. Thus, all “board-type” arrangements (in which there were three or more figures in possession of executive authority) were eliminated, and each Bureau was put under the control of a single director. Every level of government would be arranged hierarchically, with each director answering to the governor general alone. Reorganization also restructured the relationship of the capital to local governments, which had up until that point retained Spanish administrative divisions of provinces, but had attempted, following a Jeffersonian model to introduce the principle of local autonomy. As such they made moves towards decentralization and created provincial governments of the “commission type,” ostensibly autonomous in their powers. Under this system roads and similar public improvements were constructed by provincial boards, while sanitation was the domain of local boards of health. Following reorganization all public works across the archipelago fell under the supervision of the central authority of the insular Bureau of Public Works. Likewise local boards of health were abandoned in favor of a single Bureau of Health, the offices of provincial supervisors overseeing education, were remade as divisions of a centralized Bureau of Education, &c. In summary, reorganization marked a decisive change toward centralized administrative oversight based in Manila. In effect this reorganization channeled power away from local Filipino leaders and towards an insular government run in large part by the Anglo Saxon American leaders most of them based in Manila.4

Beyond the general move to centralize and Americanize power, the Reorganization Act re-formed the insular government around the execution of specific objectives. For example, public works, and the geodetic survey were to be administered by Forbes’ Department of Commerce and Police, an arrangement that eased and expedited the award of contracts to American builders and the exploitation of the Philippines’ mineral resources by American miners. The operation of prisons was put under the purview of the Department of Public Instruction, an arrangement that Forbes claimed was made “to emphasize the educational character of the work,” but which in actuality allowed Forbes to install industrial schools in the prisons, an initiative that generated a formidable reserve of cheap, semi-skilled labor.\(^5\) In short government was organized around the production of specific results.

As a result of the Reorganization Act, the governor general, ruled over a new and distinctly American form of colonial governance—one not only designed to protect American corporations, but built upon the corporation’s flexible, and project oriented logics. David Prescott Barrows, who served first under Taft as the superintendent of schools for Manila and as the Chief of the Bureau of Non-Christian Tribes and then under Forbes served as the general superintendent of schools, and who himself was responsible for the total reorganization of the educational system in 1903 (even before Forbes’ arrival) wrote the following about reorganization of government around the imperatives of administration:

> This form of administration… is a great improvement over the ordinary decentralized and ununified administration of American states. Its advantages have been fully demonstrated ….By this act the centralized system of administration was confirmed. Executive authority is centralized in the Governor-General and the Secretaries of Departments, who exercise administrative control over the bureaus. The heads of the bureaus, uniformly styled by this act “directors,” are the responsible heads with authority over the personnel and the

undertakings of their bureaus… The Philippine Government was perhaps the first under the American flag to investigate and reform its administration in the interests of economy and efficiency.\(^6\)

Here Barrows reveals the complementary nature of progressivism and colonial rule—to organize a government around “economy and efficiency” was to place those values above democratic representation, a (perhaps only apparent) shift in the focus of governance from one dedicated to exercising the will of the people, to one focused on the administration of an economy.

Shortly after returning from the Philippines Barrows published the article, “Reorganization of State Administration in California.” In it he described a sharp distinction between “politics” and “administration,” whereas politics embraced “…all questions of general policy, of expenditure, of regulation and conduct, and of pains and penalties… administration… is concerned simply with carrying the popular determination into effect—without reference to party or political consequences.”\(^7\) While in the context of a democracy this sequential division of responsibilities (where executive or administrative work simply carries out legislation) might have been theoretically possible, in the colonial context, where the subjects enjoyed no political representation, administration replaced politics tout court.\(^8\) Confirming the displacement of democratic rule under colonial conditions, the then former President Theodore Roosevelt wrote to Forbes in 1915:

> First we should ourselves administer (the Filipinos), as we deemed best, exercising the power and assuming the responsibility; doing this in the interest of the natives but taking the view that we were not justified in staying in the Islands at all unless on the theory that we were able to do for the natives what they could not do for themselves; second… we should keep politics out of the Islands and


\(^8\) This was especially true in Barrows’ first position as Chief of the Bureau of Non-Christian Tribes where he was essentially responsible for an entire population considered wards of the state.
administer them in accordance with a continuous and continuing policy; and third, that we should keep ourselves fit to defend them.\footnote{The question of efficient administration vs. political self-determination dogged Forbes’ leadership. As pro-independence Filipinos argued:

It is abusurd to suppose that, from the standpoint of Republican governors, the Philippine question is merely administrative. The fact is that it is essentially political and rests upon a fundamentally mistaken political basis: the alleged right of the United States to manage our public affairs against our express consent. The dominion over the Philippines, is, at bottom, nothing but a bold political stroke.

In \textit{Ideal}, September 1913, Manila (from Forbes scrapbook). Forbes papers, Houghton Library.}

The term “administration” was intended to invoke a sort of dispassionate, technocratic and apolitical good will, one that though not a reflection of the will of the people was done for ‘their benefit.’ What the Reorganization Act made legally explicit was the shift of the colonial mission from one at least nominally committed to the paternalist sponsorship of a fledgling democracy to one explicitly dedicated to the efficient administration of a colonial project—an unequivocal shift from political tutelage to the creation of an economic condition.

Figure 3.1 The centerpiece of Burnham’s plan, showing the capitol group and other public buildings embracing the old walled city of Intramuros.
Far from being a hidden agenda, the reorganization of government around managerial methods and industrializing aims was an explicit component of Burnham’s plan. In the arrangement of the civic core itself Burnham found a unique opportunity to articulate American power’s new imperial arrangement. While at first the gathering of public institutions surrounding a great lawn would appear similar enough to the arrangement of the Washington Mall, it is in fact pointedly distinct. When Pierre L’Enfant first drew plans for the American capital, he formalized the division of legislative and executive power in the “L” structure of two antagonistic axes of power—one leading out from the White House, then the “President’s House” and the other leading out from the Capitol building, both of them intersecting at the Washington monument. By contrast, in Manila the capital complex is divided into two halves, bifurcated by the Capitol building. One broad side of the capitol building faces inland towards a set of executive bureaus (surrounding a monument), and the other broad side directed towards the sea faces an open lawn and a court of legislative buildings. While the arrangement still articulates a division of powers, by occupying a single axial direction it serves to symbolically confirm the value of a unified, or centralized form of political administration. This centralization was not only an expression of an ideal form of colonial rule, but also signified the centralization of American political power in the metropole. This configuration did not merely reveal a distinction between American government and American colonial administration, but rather affirmed a major reorganization of American democratic rule at the turn of the twentieth century—a reorganization that was not announced in the United States, as it was in the Philippines. This reorganization was viewed by then president Theodore Roosevelt as a strong-form statist response to the increasing concentration of American corporate power. Though it was always a point of contention, the federal branch of government as initially conceived was
intended to be the weakest branch—the vestige of a monarchical form that it had violently rejected. It was, however viewed as necessary, as even a loose confederation of states would have to engage in some form of interstate commerce. Roosevelt argued however, that it was necessary to centralize government, and to expand its powers, as it was the only means available to assert control over “great corporations,” the largest and most powerful of which no longer operated within states, but between them.  

Roosevelt’s expansion of the National government did not therefore, he argued “represent centralization. It represents merely the acknowledgement of the patent fact that centralization has already come in business.”

This was, in other words an accommodation of an observed and irreversible modern condition.

Thus, despite Burnham’s overt hostility towards the incompetence of the statesmen of the Exposition’s Commission, this did not represent an opposition to government per se—but only to what he, like Roosevelt viewed as an outdated form of governance. The nation, like the corporation required leadership. The Court of Honor, (which represents the end of laissez faire urban development) was, after all, an arrangement that deferred to a very visible “leading hand.”

Government, in Burnham’s view was simply an empty structure, waiting to be occupied and re-formed by the forces of corporate administration. What Burnham was actually opposed to were the vagaries and inefficiencies of representative, i.e. democratic governance—especially if it

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10 In Roosevelt’s words:

As regards the great corporations engaged in interstate business, and especially the railroad, I can only repeat what I have already again and again said in my messages to Congress, I believe that under the interstate clause of the Constitution of the United States has complete and paramount right to control all agencies of interstate commerce, and I believe that the National Government alone can exercise this right with wisdom and effectiveness so as to secure justice from, and to do justice to, the great corporations which are the most important factors in modern business.


11 Ibid.
represented a demos that looked like the increasingly diverse, resentful, and organized pools of labor that delayed the forward march of “progress.” Government, like any executive body could be organized towards the purposes of rendering services more efficiency and cost effectively. In fact much of his most celebrated work was executed for bodies of government—especially those willing to reorganize in order to execute his plans. This is all to say that the centralization of Manila’s capitol complex should be seen as a clear expression of colonial governance under the United States, but rather as a formal expression of the reorganization of American governance in general.

Notably what is given great prominence in the Manila Plan is the position of the new Hall of Justice, a building that Burnham wrote would produce a “moral effect” that would compel “an attitude of respect… (and) a feeling of awe.” To emphasize the increased importance of moral oversight, the Hall of Justice occupies its own symbolic axis of power. On a symbolic level, the value of “fairness” (as represented by the judicial arm) replaces the value of balance or division, as articulated in “L” structure of L’Enfant’s original plan for the capital. Neither L’Enfant nor the Founding Fathers viewed the judicial branch as having equal weight to either the Legislative or Executive branches—a lack of importance reflected in its exclusion from L’Enfant’s plan. The powers of the judicial branch, thus do not (even on a symbolic level) challenge centralized power, but rather was seen as a subordinate wing of the executive branch—

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12 This becomes perhaps the most explicit when Burnham presents his Chicago Plan, which contained a section called “the legal aspects of the plan,” prepared by attorney and Commercial Club member Walter Fisher. It details which of the plan’s recommendations were possible within the current laws and those that would require additional authority.

13 This is especially remarkable considering that a dedicated Supreme Court building was not even located in L’Enfant’s original plan for the capital. It was William Howard Taft, who as Chief Justice of the Supreme Court led the campaign for a dedicated building, which had been meeting in the basement of the Capitol building since 1801. The building, which occupies an awkward site behind the Capitol was completed in 1935.
a means of guaranteeing the stability of that centralized power. Though the increased importance of the judicial branch, which Taft considered especially important under colonial (i.e. non-democratic conditions) supposedly catered to the interests of the Filipino people, it first and foremost answered to the requirements of foreign investment capital, which sought security for their investment through the guarantee of law and order. An induction to invest in the islands included an assurance by Forbes that investors would be protected by the force of law. In this light we may better understand the expanded importance of the judicial system as a part of an increasingly centralized-imperial-corporate governmental assemblage. We may also come to a more acute understanding of Roosevelt’s legacy as a “trust buster,” a reputation that suggests his opposition to corporations—a reputation that does not square with the fact that Roosevelt in fact vehemently opposed the conditions of the Sherman Anti-Trust Law, which he suggested should be substituted with a law that would “expressly permit combinations which are in the interest of the public, but shall at the same time give to some agency of the National Government full power of control and supervision over them.” In other words, Roosevelt had no interest in preventing the creation of very large trusts. As a patriot he believed American capitalists to be not only the most worthy of the world’s resources, but also the most able to judiciously manage them. The corporations, however would never be left to their own devices, but subject to the preeminence of a supreme public servant, who would be able to determine the relative worthiness of corporate ‘character.’ The concentration of American power in the office of the executive thus also served

14 The proper arbiter of centralized power becomes a site of dispute between Theodore Roosevelt, who felt that these new centralized powers over corporations should be concentrated in the executive branch and Taft who believed that centralized power could only justly operate when subjected to the oversight of a strengthened judicial branch. The place of prominence occupied by the judicial branch suggests the heavy influence of Taft, who considered the establishment of the Philippine court system as the marquee achievement of his role as Governor General.
to concentrate global power on the office of the American executive. Towards these ends, Roosevelt worked vigorously to secure, for American corporations an unobstructed and sometimes exclusive access to the world’s resources. That is to say while domestically he saw the corporation as a force to be controlled, he also viewed the corporation as an asset in the construction of America’s global preeminence. Centralization then, was a means of managing the moral hazards of corporate bigness (price fixing, collusion), not a means of preventing bigness itself, which Roosevelt believed carried with it major organizational advantages. Far from being a stance against the corporation, one should view this transformation as a spiritual union between the federal state and the corporation, one in which the former not only mirrored the latter’s organizational form, but one in which they operated as a single organizational entity.

Whether the Burnham plan intended to represent reorganization or not, reorganization itself was intended to optimize the conditions for the plan’s execution. The plan’s central purpose was a practical one—to provide a rationalized framework for the archipelago’s political and economic stabilization. As a framework, Burnham’s plan would provide business opportunities under a variety of conditions. Schematically speaking, in times of weak economic growth the construction of public works would provide both work for American contractors and a market for American suppliers, while simultaneously building the infrastructure thought necessary for future growth. If the colony was attracting enough capital, then the plan had fulfilled its purpose. It was a permanent infrastructure for economic stimulation. One could always argue for its state of incompleteness, for unlike the Fair, it was an intentionally open ended framework.
Re-Reading the McMillan Plan – The Clandestine Reorganization of the American Capital

As already mentioned, Manieri-Elia’s description of Burnham’s Manila plan suggests that is designed to disguise what he described as a sort of “moral anguish”—a casting off of an image of an expansive and uncontrolled development—as more plainly expressed by the unrelieved grids of New York, Chicago, and Detroit. At the risk of pathologizing the particular brand of psychoanalytical Marxism practiced at the IUAV (Instituto Universitario di Architettura de Venezia) as manifestly Catholic, both Tafuri and Manieri-Elia have a difficult time understanding any of Burnham’s urban planning projects as anything but evidence of American “guilt” or “anguish.” What the Manila Plan demonstrates is that Burnham, at least, was not at all tormented by the rise of industrial development, financial capitalism or its apparent contradiction with a set of Enlightenment values borrowed from Europe. The McMillan Plan, which Tafuri uses as a key piece of evidence of American “anguish” only confirms this. What Tafuri misses in his discussion of the McMillan Plan—what in fact many historians fail to address is that Burnham did far more than to simply reinforce or ‘clarify,’ L’Enfant’s original ideologically driven scheme (especially as it had been violated by the forces of ‘organic’ industrial development). This departure from L’Enfant’s original intentions are perhaps best understood by comparing L’Enfant’s treatment of the plan’s edges to Burnham’s treatment of those same limits. The tentative northern edges of L’Enfant’s original plan, and the forced asymmetries of its southern edge are features that underscore the dominance of natural form. Plainly stated, the Potomac River is unequivocally, the strongest figure in L’Enfant’s plan, a figure that determines the ‘natural’ edge of the city. In the McMillan Plan, we see the opposite situation is true. It is the city itself that shapes nature, the edge of the Potomac becomes a design element as malleable and
To schematically state the difference between the two plans—one was the plan of a surveyor of the land, while the other was the plan of a builder (with the capacity to reshape that very land). While the plan that L’Enfant presented to Washington in August of 1871 may seem to demonstrate a particularly willful and highly symbolic, even ‘sacred’ geometry, what a careful study of his plan reveals (especially when read through the few surviving iterations) is its particular sensitivity to local environmental conditions. While this can be seen in his sensitive placement of the avenues to capture subtle changes in topography, it is an approach best demonstrated by L’Enfant’s specification of a 9 mile long “Water Street” which ran along the capital’s complex and curving southern boundary, which generated a wandering series of prospects that L’Enfant resolved in the form of a varied catalogue of townscape effects.

15 The Potomac still dominates the plan even despite the fact that the initial execution of L’Enfant’s plan was a major engineering feat. A large inlet was canalized and filled in to create the Washington Mall, and the entire area had to be stabilized with piles. This was a far more arduous task in the eighteenth century than it was in the early twentieth.

16 In a letter to Jefferson, L’Enfant wrote, “(t)he gradual rising of the ground... presents a situation most advantageous to run streets and prolong them on grand and far distant points of view. L’Enfant to Secretary of State Jefferson, from Georgetown reporting his first reconnaissance, March, 1791 quoted in Donald E. Jackson “L’Enfant’s Washington: An Architect’s View. Records of the Columbia Historical Society, Washington D.C., Vol. 50 (1980), pp. 398-420.

17 These townscape effects are described by Donald E. Jackson:

Canal inlets and docking basins reflect the natural streams and coves between ranges of piers and wharves. Great quays and landscaped embankments connect wide plazas and square variously intended for monuments and markets, bridgeheads and building groups—or all together. The canal system and the river bends bring still more of the city to bear on the sequence. So does the famed Mall and avenue framework.
This town-scaped edge was to some degree a necessary negotiation between the city as symbol and the constraints of the capital’s natural condition. The McMillan Plan by contrast faced no
such limitations. Land reclamation technology had made a set of bold design moves not only possible, but with the aid of carbon powered dredgers and pile drivers, also relatively simple. Burnham was free to exaggerate the willful geometries of L’Enfant’s plan. As it was, the capitol building looked out onto a swampy morass. The McMillan Plan aimed to make that ground as solid and as stable as Roosevelt’s belief in America’s destined global supremacy. Burnham and the Senate Park Commission were thus able to simultaneously fulfill two objectives. The first objective was to simply cater to the needs of an expanding city, by offering a comprehensive framework for the execution of several large infrastructural projects, which included, for example, rationalizing rail traffic coming into and leaving the city, redirecting sewage away from the Washington Channel, and improving the navigation of the Potomac and Anacostia rivers (for the purposes of both military and commercial traffic). The second objective of the plan was to clarify the capital’s identity as “an ideology realized in terms of images.” These objectives were, of course not mutually exclusive. Rationalizing rail traffic allowed Burnham to simultaneously clear the symbolically charged void of the Washington Mall of rail yards and create a grand new vestibule that dignified the approach to the city. In a similar manner, earth dredged from the Potomac and Anacostia was used to reclaim the 740 acres of land that Burnham used to re-form L’Enfant’s L-shaped arrangement into a perfectly unified symmetry. Burnham did not have to negotiate as L’Enfant did between the city as a symbol or the city as such. In the end what he created was a highly charged symbolic field undisturbed by the limits of both nature and development (second nature)—one wholly overcome by the eminent powers of newly available building technologies.18

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18 In this view Tafuri’s analysis of Burnham’s plan reveals itself to be a totally willful, though still elegant psychoanalytic exercise. It is useful to return to his address of Washington here:
What the Columbian Exposition and the McMillan plan signaled was the fact that the efficient management of these very large projects were not only possible, but now both reasonably easy and relatively cheap. The transformation of environmental and economic conditions aided by a new set of professional/managerial/technical strategies could, furthermore travel, again with relative ease to an ‘undeveloped’ archipelago more than 8000 miles away. These strategies, which stabilized and rationalized unstable earth and volatile economies alike are the basis for the particular form of American colonialism that is the object of this dissertation, namely “concrete colonialism.”

An Infrastructure for Permanent Expansion: Generic Town, El Dorado

Oscillating back, once again to the Philippines, we encounter another plan. This time it is not a plan for any particular city, but an outline for any city. If the Columbian World’s Fair was a beginning, then the plan below is a fairly accurate illustration of its ends. For whereas the Fair, or the McMillian Plan or the Manila Plan may, on account of their symbolic importance always present themselves as a singular events, the plan below illustrates a properly global or general

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(The Senate Park Commission’s) “model was still ‘academic Europe.’ ...All the programs of the City Beautiful movement were poured into the heart of Washington. It is, in fact, to this project that those programs were really suitable. The Park Commission had not to complete a city created and adapted to business; rather, it had to work with a deliberately abstract collective symbol, an ideology realized in terms of images, the allegory of a political organization whose socioeconomic consequence is a rapid and mobile evolution but which here wishes to present itself immobile in its principles. The city of Washington gives form to the immobility and conventionality of those principles, there represented as ahistoric. New York, Chicago, and Detroit are left to be the protagonists of development. (And this is true even if Burnham and the City Beautiful planners tried to interpret the new dimension of those cities in terms of a formal quality. What Burnham and the others were actually doing was anticipating, at a very abstract and ingenuous suprastructural level, the need for unitary control over development.)

condition. It does not symbolically point towards an expansive American future, it is a clear set of instructions on how to build it.

Figure 3.4 “General Map of Town” in Quarterly Bulletin of the Bureau of Public Works, October 1914, pg. 22-23.

Perhaps Burnham was only partially aware of the fact that what he had sketched out within the tightly controlled limits of the Fair, were the outlines of a potentially unlimited system, one that could easily be deployed anywhere on the globe in order to sow the base conditions for American Empire. What Manila and the Fair helped to establish was a new role for government as an organization that fostered conditions attractive to private capital. The drawing above, of a “General Map of Town” first appeared in the October 1914 issue of the Quarterly Bulletin of the Bureau of Public Works. The map was of the fictional town of Santa Fe, in the mythical province of “El Dorado.” The ideological features of City Beautiful Planning—the axial boulevards, the clearings for public assembly, the monuments at the center of the town, the half circles and
ellipses that even though faintly, still echo masterpieces of Baroque and Classical urbanism, are here presented as the “general” features of a colonial town. The formal aspects of the plan are not presented as having any sort of ideological content, but are rather presented as merely the most configured components of flexible and infinitely extendable method of “a distribution system.”

And while the above diagram innocently presents itself as a water distribution system, it also describes the underlying logics of a general system that I will henceforth refer to as Generic Town. America’s condition of growth and the American qualities of flexibility and adaptability, as described by Frederick Jackson Turner are now shown to be deeply embedded within the practice of American urban planning, the planning of Generic Town.

The distinguishing features of Generic Town—its city hall, its main plaza with its requisite monument, the post office, school, municipal and provincial building, and church all cluster around its highly configured center. The street names of Generic Town are not numbered, they are named. And the list of names read as a rotely memorized roll call of American approved Philippine national heroes. The tragic biographies of these “patriots”—José Rizal, the subversive author of Noli me Tangere, and El Filibusterismo, after whom the central plaza and monument were named, Apolinario Mabini, the paraplegic “brain” of the Philippine Revolution, after whom the central axial boulevard was named, and of the other boulevards’ namesakes—Raja Matanda, the Muslim founder of Manila, or M.H. del Pilar the journalist who railed against Spanish colonial oppression (not to be confused with the “Boy General” Gregorio del Pilar who fought fiercely against the Americans), were most notable, as a group, for their lack of any conspicuous or lasting resistance to American colonialism. However, as most of them died before the conclusion of the Spanish American War, they were never offered a chance of refusal. The notable exception was Mabini, who under duress acquiesced to the new colonial power by
pledging his allegiance to the United States.¹⁹ As a matter of policy, no resistance to American rule would be monumentalized in Generic Town. To tell the stories of these heroes in full was intended to help Filipinos construct a more robust national myth. This is in fact one of the key functions of Generic Town.

An indefinitely expansive capitalism (represented by the infinitely extendable colonial grid) and a monumentally configured state (represented by its overlaid axial logic) had quietly eloped to Generic Town. Ideology is installed into Generic Town as a piece of infrastructure. Generic Town, however is not an idea, it is a set of instructions for constructing a real place. That is how Generic Town is in fact described, below is the description of Generic Town in its entirety, as it appeared in *Quarterly Bulletin*:

Figure 2 is intended to suggest in a general way the information a map of the town should contain to assist the designer in laying out the (water) distribution system. Such matters shown (include) the house survey, the suggested location of mains and of fire and service hydrants, the indication of the direction of future growth of the town, the representation of the routes over which people from outlying barrios will come for water, the information as to which are the provincial highways and the principal thoroughfares in town, the notes describing the location of the business and residential districts, should all be at hand for the designer’s consideration when the sizes of the pipes are completed and final decision made as to the location of the street mains.

In locating fire hydrants within the area to be protected, it is usually advisable to place them near enough together so that the desired amount of water may be obtained without using lines of hose longer than 300 feet. In a gravity system, considerations of the large loss of head in hose may demand close spacing of hydrants. Furthermore hydrants are cheaper in the long run than hose. Since a hydrant in place does not cost over P70, the percentage of the total value of the system which the hydrants represent, is usually found to be small. The location of fire hydrants, therefore, fairly close together, should prove a good investment.

In making a map of the kind illustrated, due care should be exercised in the selection of the proper scale. One smaller than 1:2500 makes the details too

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¹⁹ Though Mabini died shortly after his return from exile in Guam in February of 1903 he did, even in the short three months before his death from cholera in May of that same year, continue to agitate for Philippine independence.
crowded and is likely to result in considerable inaccuracy in scaling pipe lengths for the final estimate.

Also included in the drawing of Generic Town was a train station, parks, a cinema, vacant lots of undetermined program, and dotted in lines (denoting the town’s future extensions). In generic town the designer’s most important work is to accurately size the pipes. Though a seemingly mundane task, the correct sizing of the pipes reveals the actual physical capacity of Generic Town. Generic Town was not just a town, but a network. In each corner of the map is an arrow that points to another town. To the Northwest is Makaboo (12km away), to the Southwest San Gregorio (6km), to the Northeast Ilang-Ilang (30km), and to the Southeast Santo Rosario (30km).

There is no separation between Generic Town and other generic towns. Generic Town is, in other words not a town, but the description of an infinitely expandable global condition. What is most notable about Generic Town is the accommodation of its own continual transformation, its planned future development.

While the physical transformations suggested by Generic Town may seem grossly misaligned with what was viewed as a sort of exclusively economic, “hands-off” approach to American foreign policy at the beginning of the twentieth century (as famously outlined in John Hay’s “open door” notes), there is another way to look at it. Burnham’s Plan was simply the most aggressive iteration of an “open door” policy. To elaborate, Burnham’s plan accommodated, among many other things, an investment in public works projects. Public works projects were the insular government’s attempt to, on the one hand sustain growth in the American building industry through the inexhaustible generation of government contracts, and on the other hand to stabilize economic/social conditions thought necessary to establish a viable and profitable trade partnership. That is to say that besides creating demand for industrial
building products and construction services, public works projects were seen as a means of eliminating poverty, the ultimate goal of which was to prepare ‘underdeveloped’ markets for the purchase of the full panoply of American goods. Economic development, in other words, was key to the broad application of an “open door” policy. As William Appleman Williams wrote, “(P)oor people cannot not buy the goods and services exported by the richer industrial countries.

No income, no purchases, no purchase, no trade; no trade, no prosperity in America and no “salutary” effects in the poorer country.”20 While this sort of investment may have seemed to go beyond the limits of securing “equal commercial rights,”—the stated goal of Open Door policy, it was posed as a way of making that policy work under a number of different economic conditions. The logic of “opening the door” was thus extremely open ended, and essentially ad hoc. For whereas Japan and China were well suited as relatively equitable trading partners, poorer counties like Morocco and the Philippines were not.21 Thus, American leaders in foreign relations stressed the importance of securing access for American capital to the competition for public works construction. This was not only desirable as an economic opportunity in and of itself, but also represented one of the ways in which a minimum level of general development could be facilitated. Transportation, sanitation, and power systems were as important as large loans or legal reforms in establishing the conditions for successful commercial enterprise.

21 I mention Morocco here because in the same year that Burnham presented his plan to Congress, the United States and the great European powers met at an international conference held in Algeciras, Spain. The purpose of the conference was to find a solution to the First Moroccan Crisis of 1905 between France and the German Empire, which arose as Germany attempted to prevent France from establishing a protectorate over Morocco. Though no formal concessions to the United States were made as the result of the conference, the American representative reported that the principle of “the open door in matters of commerce” had been acknowledged, and thus the way had been prepared for American participation in “the execution of public works, or the future development of the great mineral wealth of Africa.” William Appleman William The Tragedy of American Diplomacy. New York: Dell Publishing Co., 1962.
Beyond the creation and/or stabilization of market economies, physical improvements had the additional benefit of serving as proof of American benevolence. It was through these demonstrations of material progress that the United States largely sidelined the ‘aporias’ of American colonial rule. These only apparent ‘conflicts,’ in the end mattered little in light of the ‘actual’ benefits and material consequences of development. It was, however not only in the colony where infrastructure was used to stabilize economic conditions.

Below is a rendering by Jules Guerin of Burnham’s Chicago Plan of 1909. With this plan, which would be his last, Burnham wished to present “…the American city, and Chicago preeminently,” as the “center of industry and traffic.” Upon first glance, one immediately detects the familiar texture of the McMillan Plan, the Manila Plan, and his mostly abandoned plan for San Francisco. Guerin’s renderings eliminate the subtle variegations of Chicago’s landscape—representing instead the city’s fabric as endless blocks of nearly uniform buildings. This infinite grid was relieved only by its monumental administrative core and the canalized river that famously ran in the opposite direction of its natural course. Though Guerin rendered certain subtle references to Chicago’s locality by using, for example the unmistakable reddish ochre of Calumet clay to carefully shade in each facade (save for the white buildings that made up its new monumental core), the Chicago Plan told the story of the American city’s unmoored imperial expansion. The story of this expansion, however cannot be found in Guerin’s seductive renderings, rather one can only come to an understanding of this plan and the expansion that it

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22 These contradictions included the problem of the Philippines’ (and Puerto Rico, Cuba, Guam, &c) simultaneous status as both foreign and domestic and the simultaneous status of Filipinos as both ‘free’ Americans and colonized Filipino subjects. These contradictions were famously ‘resolved’ by the Supreme Court which declared that the subjects of American non-colonies were “foreign in a domestic sense.”

23 The reversal of the Chicago River was up until that point considered the largest civil engineering project ever undertaken in the United States. I address its history in more detail in Chapter X.
accommodated in the conditions—technological, cultural, climatic, political, legal, historical, and material that both led to its creation and drove its execution. Part II of this dissertation places a tighter focus on these conditions by turning away from master plans, and turning towards the actual conditions under and through which the colony would be constructed, and specifically towards concrete, which was unequivocally considered to be the “master building material” in the Philippines.

Figure 3.5 The mother of Generic Town or a detail of Guerin’s rendering of Burnham’s Chicago Plan
PART II:
THE MASTER MATERIAL
Chapter 4: Why Concrete is the Master Material in the Philippines

The dwelling of the average Filipino is made of bamboo, and this is in many respects an ideal material. A man can construct his own house, with the help of some other men of the neighborhood, for a few dollars. The material is cool, light and flexible. It will bend instead of breaking during an average earthquake, and if it is blown down in a typhoon, the occupants are not likely to be seriously hurt… It may be readily understood, however, that such construction is not suited to building other than the simplest type of dwelling…. (and) while there are stone walls and buildings several centuries old still standing… neither the brick nor stone available in the vicinity of Manila could be recommended as a good building material for a large structure. The stone is too soft for use in any but a very thick wall, and the brick for the most part is underburned and consequently has little strength… Wood is not a satisfactory material if one builds for permanence. It is subject to all the destructive agencies we have in a temperature (sic) zone—and then some more. There are more kinds of bugs, more of each kind, and apparently each individual works constantly and untiringly… It may be readily seen why concrete is so well suited to the Philippines. It is probably best of all for withstanding earthquake disturbances, is inflammable, unaffected by moisture—under most conditions—and will withstand the attacks of rats and white ants.

-Joshua Chitwood Witt
J.C. Witt, a young scientist and mechanical engineer from Indiana, set sail for the Philippines in 1918. He knew little about the country where he would spend the next four years, but became better acquainted with its capital in conversations with his fellow passengers while en route to Manila. He was headed to the archipelago to fill a position at the Philippine Bureau of Science, where he would work in the Laboratory of General, Inorganic and Physical Chemistry. Though he would often complain about the effects of the heat on his concentration, Witt was remarkably prolific; writing dozens of articles including, “Philippine Paving-Brick Material: A Preliminary Report,” “The Effects of Sulfide on Cement,” and “The solubility of Portland cement and its relation to theories of hydration.” While most of his articles were technical in nature and usually aimed at other scientists, his article, “Why Concrete is the Master Building Material in Philippines,” published in Engineering World magazine was aimed at a slightly broader audience. In that article he opened not with concrete, but by commending the virtues of a different material altogether—bamboo, a material that he praised as cheap, readily available, easy to work with, easy to repair, resilient in an earthquake and comfortable in the tropical heat, the only disadvantage of it being its susceptibility to fire. Despite its many advantages however, the material was wholly inappropriate, Witt implied, for the construction of American

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1 On account of the fact that the insular government was involved in every aspect of building production, Witt had unlimited access to every possible phase of Portland Cement technology including the prospecting of raw materials, plant operation, engineering, research, development, consultation and administration, a fact that allowed him to easily establish himself as a synthetic expert bridging science dedicated to both the use and manufacture of Portland Cement. He also had access to a well equipped cement testing laboratory, where over 10,000 samples of Portland Cement were tested every year. Upon returning to the United States he pursued a PhD at the Armour Institute of Technology (IIT was formed in 1940 with the merger of the Armour and the Lewis Institute, established in 1890 and 95, respectively), defending the dissertation Mechanical Engineering and the Cement Industry in 1935. He went on to devote the rest of his career to the Portland Cement industry, eventually publishing the book Portland Cement Technology, a technical reference guide still in use today.

2 Joshua Chitwood Witt “Why Concrete is the Master Building Material in the Philippines” Engineering World, September, 1921.
programs—the large and permanent buildings that began to rapidly populate Manila almost as soon as the Philippine American ‘insurrection’ was declared over. And while buildings both large and permanent existed on the islands (some of them standing a full century before America’s Revolutionary War) the stone and brick used was considered incompatible with modern methods of building and the speed of modern construction. Cutting stone and laying thick walls of brick, Witt wrote, were both time and labor intensive, and Americans had “grown accustomed” to erecting large buildings in a fraction of the time that it would take to build using outdated forms of masonry. In other words, concrete was the master building material in the Philippines, not because it was uniquely suited to the Philippine environment, but because it was uniquely suited to develop it.3

Though little had been built in concrete prior to Burnham’s arrival in 1904, by 1918, the year of Witt’s arrival, concrete buildings were practically ubiquitous in the modernized quarters of Manila. Following upon Burnham’s recommendations, reinforced concrete had been adopted as the standard form of construction on the islands. In his “Final Report on Improvements at Manila,” Burnham had argued that,

(i)n a tropical climate costly structures put up with granite, marble, or other building stones, in the manner of public buildings in Europe and America would be out of place. Flat walls, simply built of concrete (with steel reinforcing rods to

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3 Forbes, who was a fervent advocate of the use of reinforced concrete also extolled the virtues of bamboo, which also played an important role in the development of the archipelago. In 1906, while he was the Secretary of Commerce and Police Forbes issued a policy that nothing between temporary and permanent construction was permitted, quoting his own speech in The Philippine Islands, Forbes declared:

I do not want a single one of you to put up a single building which you expect to see fall during your lifetime, unless it is for temporary purposes and built of such temporary material as nipa, bamboo, or stuff you do not mind going to pieces, because it costs little or nothing in the first place and when it has served your purpose you can throw it away. I want a very great difference between the thing that is meant to last and that which is meant not to last. From the speech by the Secretary of Commerce and Police to an assembly of district engineers, November 6, 1906... quoted in William Cameron Forbes, The Philippine Islands Vol 1. Note 1 Pg. 387.
resist earthquakes), and depending for their effect upon beautiful proportions rather than upon costly materials, are from all points of view most desirable for Manila.4

Burnham did not elaborate as to why “flat walls, simply built” would be more appropriate than costlier materials, though one could easily infer that it had little to do with the “tropical climate” and far more to do with the lack of funding for America’s colonial experiment. It was, in other words a managerial decision framed in aesthetic terms. In any case, on account of the fact that colonialism never ceased to be a controversial endeavor for Americans, the insular government was at extra pains to prove its economic benefits, operational leanness, and its benevolent aims, and it had to do all of this, without dipping into American tax dollars. In 1905, the year that Burnham recommended the reinforced concrete construction, the technology was still in its infancy. Nevertheless, its use would be a standard strongly enforced by William Parsons and William Cameron Forbes, the latter of which noted in his diary, an exasperation with the use of Oregon pine, a material he would characterize as “the bane of the islands” on account of the fact that most of the buildings built with it were, after only a few years following their construction, already falling down, having been ravaged by termites.

When I got to the islands I found a great deal of very foolish construction going on. In order to economize in the first cost a lot of building was being done of Oregon pine or other cheap wood which should have been done of reinforced concrete. I issued orders that nothing should be built which was likely to fall during my lifetime and ordered plans for everything in the future to be made of reinforced concrete. I got this policy adopted and it seemed to work.5

Forbes would argue that such poor decision making was a tremendous loss of both time and labor. Specifying reinforced concrete was a decision that Forbes viewed not only as

5 William Cameron Forbes Diary (366n).
representative of the permanent change he intended to bring to the Philippines, but as an agent of change itself. Forbes equated permanence—a quality of reinforced concrete construction very directly with the development of capital:

Capital is nothing more nor less than accumulated or stored-up labor—labor put in permanent and lasting form... If through any misunderstanding any capital is destroyed, labor is directly the sufferer. In the first place, some of its permanence is taken away; labor has lost one of its valuable qualities; it is made less durable and therefore less effective. Secondly, the usual use of capital is to make labor more effective by providing machinery which enables labor to produce more, or by making living conditions more favorable, as for example in the construction... of waterworks, and, in modern communities, hospitals, libraries, schools, and so forth, and by providing funds from which insurance can be paid, and in a thousand other ways too numerous to mention.6

Though Forbes was speaking of accumulation in very general terms it is not difficult to see how his policy of permanent building—in reinforced concrete was a key figure in his pat theory of capital. Very simply, architecture, when built in concrete is a repository of accumulated labor. This sentiment was not only reflected in grandiose though pragmatic prose, construction in reinforced concrete allowed Forbes to set “at least fifty years of use” as a constant in every cost calculation and budget analysis. The projected profitability and success of the colonial venture, in other words, largely relied on the assumed durability of concrete.

By building in a permanent manner—against the catastrophic losses wrought by the termites, earthquakes, and typhoons, concrete architecture would, Forbes surmised spare the native laborer from the hours and days that would otherwise go into reconstructing and/or maintaining his bamboo house—a construction wholly susceptible to those natural forces.7

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7 The following quote, of a similar nature is taken from Forbes’ inaugural address:
   The Government buildings and bridges should always be of reinforced concrete; the roads should be built upon strong foundations, with durable surfacing, and guarded from hour to hour by roadmen to see with jealous eyes that no sign of deterioration is
Permanent buildings, Forbes argued, furthermore provided both insurable value and credit against which money could be borrowed, and thus provided capital for banks and material value on which to establish an insurance industry. The Insular Life Assurance Co., the first Filipino life insurance company, was established only five years after Forbes’ arrival. While advertisements like the one below invoked the strength and security of concrete as a means of illustrating the less tangible benefits of life insurance, concrete in fact played a far more significant role, by guaranteeing the viability of the the life insurance company itself.

![Figure 4.2 Advertisement in Philippine Magazine, December, 1936](image)

Beyond providing a form of material insurance, Forbes argued that by virtue of enabling the accumulation of labor time, time was freed up, not for leisure, but rather to be devoted to the construction of an innumerable variety of communally beneficial programs—the construction of roads, community centers, and markets, for example. In other words concrete, by virtue of

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allowed even to appear. Our wharves should be built of materials that will resist the destructive insects of the seas.

_The Inauguration of the Governor General of the Philippine Islands, (Containing the Inaugural Address)_ Manila: Bureau of Printing, 1909.
physically stabilizing the environment, was a means of moving beyond the conditions of primitive accumulation. By specifying concrete, Forbes believed he was not only developing a market for the consumer product, but was taking concrete steps, or so he hoped, towards the reproduction of the conditions that fostered capitalism itself.

The American Concrete Age was Also the Age of Steel: The Tandem Growth of Two Industries

At the turn of the 20th century, American producers and promoters of Portland Cement began to associate Portland Cement with the construction of an era of American greatness—an American “Concrete Age,” as announced by the title of an early twentieth century trade publication. A practice of classifying “Ages” according to material (i.e. the stone, bronze and iron age), was formalized in the early to mid nineteenth century with the expansion and professionalization of archaeology and the scientific classification of rapidly growing museum collections in Europe and the United States. In view of a past now so systematically defined in terms of their materiality (and the agencies that those materialities afforded), Americans began to see themselves in the grandiose terms of an epochal and civilizational history, not only using, but identifying with the increasingly ubiquitous material, equating its durability and strength with that of their own promising and vigorous American future.

Plainly speaking, modern concrete is a hybrid material made up of five basic components: water, aggregate (rock, gravel, and/or sand), reinforcing steel, and Portland cement (itself a mixture of globally abundant lime and argillaceous materials), an ‘invention’ generally credited to Joseph Aspdin, a tinkering British bricklayer who received a patent for “Artificial Stone” in 1824, naming the material after Portland stone, to which it bore a close resemblance. It was in fact not an invention, but a variation and development of a long string of developments,
including a previously patented product—James Parker’s “Roman Cement.” Both used a “double burning” process in which limestone is burned on its own first, then slaked, mixed with clay, and burned again. The resulting material, which took on the form of “hard calcined lumps” were then ground into the powder, recognizable today as Portland cement, which when added to water would form Aspdin’s “Artificial Stone.”

Though it was both easier to ship and far cheaper to manufacture than it was to quarry rock, artificial stone, or concrete still suffered many of the same disadvantages of naturally occurring counterpart; though strong in compression, it was weak in tension. Thus in the early years of its use concrete, either poured into a mass or precast as modular blocks, was used much like stone was, that is to say, exclusively in applications in which it was subject to compression only—in piers, walls, footings, and eventually columns and arches. Plain concrete’s poor performance in tension was a problem that inventors began to address about twenty years after Aspdin’s first patent application, when several men began to experiment with iron reinforcement. In 1848 Joseph-Louis Lambot, more interested in concrete’s adhesion to metal, built a small row boat out of mortar, iron rods, iron barrel bands and chicken wire and a short four years later, one François Coignet built a four story reinforced concrete house at 72 rue Charles Michels. Both men presented their work at the 1955 Paris Exposition Universelle. In the same year of the exposition, William B. Wilkinson of England obtained a patent for imbedding a grid of wire rope

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8 Aspdin’s patent application recalls the process of the material’s manufacture, in which he procured limestone then used for road repairs from just outside of his house (It is significant that Joseph Aspdin was twice prosecuted for digging up whole paving blocks from the local roads—procuring limestone was clearly a major headache for Aspdin in the days before stone could be brought in by rail). Once procured he mixed the limestone powder with clay and water, which he then allowed to evaporate. The mixture, then solid is broken into lumps and placed in a kiln so that the “carbonic acid is entirely expelled.” The process, which rendered hard “calcined” lumps had to be “ground, beat, or rolled into a fine powder,” which when added to water would form his artificial stone.
in a concrete slab. In the 1860s a small number of American patents were issued for reinforced concrete pipe, reinforced joints in brickwork, and timber-reinforced concrete walls. It was not long before the practice of reinforcement took off.

Freeing plain concrete from its structural limitations resulted in a building material with unparalleled plasticity and theretofore unimaginable versatility. The cement that Aspdin created in his little workshop, however was still a long way off from possessing the strength and durability of modern Portland cement, the production process of which was rapidly refined (mostly in England and Germany), in the following decades. Despite the mismanagement of his company, Aspdin’s son William was largely responsible for growing the industry, introducing its industrial production to Germany. Germany and England continued to be leading producers of Portland cement into the beginning of the twentieth century, a role that the United States quickly surpassed following upon transformational improvements made in the manufacturing process, the most significant of them being Thomas Edison’s invention of the giant rotary kiln, which helped to increase American output of the material eleven-fold in a little more than a decade.\(^9\) It was at about this time that the American cement industry began to experience, as did many others, the volatile effects of overproduction. Though cement had been in use for centuries—as mortar in brick masonry construction, for the typical consumer it was in the main used as an adhesive, and not, as the Romans had used it, as a monolithic building material. Despite its immense potential, Americans and builders across the globe simply did not know how to properly consume it. Massive American defense and public works projects and a few innovative

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\(^9\) Thomas Edison received a patent for the giant rotary kiln in 1909 (defined as kilns over 150 feet long). Giant rotary kilns eventually maxed out at a length of 260 feet. In 1900 the United States produced a little under 900,000 barrels of Portland Cement. By 1913 the United States produced 9.2 million barrels.
structures were ultimately insufficient attempts to prop up demand. Overestimating his own ingenuity and ability to problem solve, Edison (himself the owner of a failing Portland cement company) attempted to singlehandedly increase demand by inventing a dizzying variety of consumable concrete products—including a concrete phonograph, concrete furniture, a concrete piano, and a concrete refrigerator, all of which could be placed in his patented single-pour concrete home in which tubs, stairs, ornament and other fixtures were already integrated into a single complex mold. Edison was attempting to overcome the fact that architects, small proprietors, and everyday consumers were still unfamiliar with the full potential of the material. Edison’s concrete home, however was a failure on at least two accounts—as a commercial venture in and of itself and as an attempt to save his already doomed Portland cement company. The rigidity of Edison’s design spelled its demise. For one, his mold was only capable of producing exact duplicates.

More flexible, open-ended proprietary concrete construction systems had already been developed by 1908, the year that Edison received the patent for his ill-fated concrete house. Though an industry still in its infancy in the first decades of the twentieth century, the development of these systems would have the greatest stabilizing effect on the Portland cement industry as a global whole. Though several inventors tinkered with reinforced concrete construction systems before him, François Hennebique was the first to bring his system to market, building his first reinforced concrete floor slabs in 1879. The performance of these early systems was vastly enhanced by the introduction of steel, which was about twice as strong in tension as cast iron.\(^\text{10}\) While the European market was dominated by the Hennebique system, the

\(^{10}\) The compressive resistance of concrete is about 10 times its tensile resistance while steel has practically the same strength in compression or tension. Steel will carry in compression about
Kahn system, introduced in 1903 by the engineer and industrialist Julius Kahn would dominate the American one. Both systems, however were challenged by the dozens of armored and reinforced concrete systems that followed suit, including the Ransome system, the Coignet system, Stuart’s Granolithic system, the Patent Indented Steel Bar Co. system, the Expanded Metal System, the Cummings System, the Wells system and C.A.P. Turner’s popular mushroom system, otherwise known as the four way flat-plate slab system. Whatever the system, ferroconcrete made the enclosure of large volumes of space both cheap and relatively easy to execute. When marketed as entire pre-engineered and modular building systems, both architects and less ambitious builders could build large interior spaces with a greatly minimized amount of planning and forethought.

Figure 4.3 Various examples of proprietary reinforced concrete systems (top left) Kahn Trussed Bar System (bottom left) Hennebique System (center top) Gabriel System, (center middle) American System (center bottom) National System (right) CAP Turner Mushroom System

40x as much load as an equal section of concrete, and in tension steel will carry about 350 times as much load as an equal section of concrete. The cost of steel is about 50 times the cost of an equal volume of concrete. So that for a given load in compression concrete will cost only about four-fifths as much as steel. But in tension to carry a given load with concrete would cost about seven times as much as to carry it with steel. By combining these materials so the concrete carries compressive load and the steel tensile loads greater economy is obtained than by using either material alone. One of the most important advantages gained by such a combination is the absolute protection of the steel against corrosion. Numerous cases are on record proving conclusively that the protection of the steel by concrete is perfect.
Reinforced concrete thus played a crucial role in the tandem development of two industries. It was not only steel, however that would save Portland cement from the dangers of overproduction. Portland cement would also save the steel industry, which faced a different danger altogether, for whereas the raw materials that went into Portland cement were abundant in every part of the country (and most of the globe), the raw materials that went into steel were not. In a speech given on May 13, 1908 entitled “Conservation as a National Duty,” Theodore Roosevelt announced that though the nation “began with coal fields more extensive than those of any other nation and with iron ores regarded as inexhaustible… many experts now declare that the end of both iron and coal is in sight.”\(^\text{11}\) In a quick response to the speech Andrew Carnegie assured investors in the steel industry by issuing the following statement:

> The next great use of steel is in construction, especially of buildings and bridges. Fortunately, the use of concrete, simple and reinforced, is already reducing the consumption of structural steel. The materials for cement and concrete abound in every part of the country; and while the arts of making and using them are still in their infancy, the products promise to become superior to steel and stone in strength, durability, convenience, and economy and use. The cement industry is growing rapidly, largely in connection with the making of iron and steel, so that the substitution of the new material will not involve abandonment of plants or loss of invested capital.\(^\text{12}\)

By enabling for a more moderate consumption of steel, reinforced concrete would save both the steel industry and foster a burgeoning Portland cement industry by on the one hand tempering the depletion of finite iron ore reserves and stimulating the use and production of a far more abundantly available Portland cement.

\(^{11}\) Theodore Roosevelt “Conservation as a National Duty” May 13, 1908
\(^{12}\) “Concrete to Save the Day” in *Cement Age: A Monthly Magazine Devoted to the Uses of Cement*. July 1908. No. 1, pg. 3
Towards the end of the nineteenth century, new technologies moved from idea to market with remarkable speed. This was especially true of building technologies, which struggled to keep up with an extraordinary turn of the century urban building boom (that it also played a part in making). Remarkably, the Kahn system, later marketed under the company name TrussCon had been used in over 1500 buildings in the five short years following its introduction. It became especially popular in earthquake prone areas following the 1906 San Francisco Earthquake and fire, when it was observed that a Bekins warehouse “the first building of pure reinforced concrete
type (built) in the city,” emerged from the devastating earthquake relatively unscathed. Its resistance was confirmed following earthquake in Kingston, Jamaica on January 17, 1907 where everything except for the city’s two buildings built out of reinforced concrete—the government rum warehouse and the Singer Sewing Co. warehouse was completely destroyed. Similarly, following an earthquake that struck Messina, Italy on December 28, 1908, the New York Herald reported “The only buildings that remain(ed) standing in the city (were) a lunatic asylum and four or five houses all built of reinforced concrete.”

Manila itself also witnessed the superb performance of reinforced concrete where the newly poured and still curing foundations and walls of the Manila Hotel and Army and Navy Club

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withstood the violent eruption of the Taal Volcano (31 miles south of Manila) on January 30, 1911, prompting Henry Allyn (the construction manager of both projects) to pen a letter of personal thanks to TrussCon:

You may be interested to know the Army and Navy Club which was practically completed and the Manila Hotel which was well underway, both withstood the effects of the recent eruption of Mount Taal in January, 1911, without any damage whatever to the buildings. During the eruption, 964 distinct shocks were recorded in Manila of which at least 40 were strongly and generally felt. Concrete construction generally throughout the city was uninjured by the shocks, but it was a source of especial satisfaction that the green concrete of these two large buildings stood up perfectly.

Reinforced concrete is the standard form of construction in the Islands, and the behavior of the structures mentioned, both of which were built (using the) Kahn system, has a long way towards convincing the most skeptical.

EASTERN ENGINEERING COMPANY
(signed) Harry Allyn, General Manager

San Francisco, Kingston, Messina and Manila all responded to seismic disaster by rebuilding their cities largely out of reinforced concrete. Julius Kahn, who ultimately patented over 75 inventions related to reinforced concrete, used the material’s earthquake resistance to break into the international market (even commissioning the publication of the book *Earthquake Proof Construction*, from which all the above examples were taken). Indeed, it was an effective marketing strategy, as by the mid 1930s the Kahn system could be found in over 134 cities across the U.S., and in Europe, Mexico, Brazil, Africa, China, Japan, the Carribbean, etc., though it was in the globe’s seismically prone areas that reinforced concrete took almost immediate hold of the building industry.

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What the global success of TrussCon and the global overproduction of cement point to is that the fact that concrete’s status as the “master material” in the Philippines had as much to do with the dynamic and developing features of a global cement market as it had to do with the fact that it seemed specifically tailored to the conditions present on the archipelago. In fact, the colony played a small though important role in occasionally stabilizing the price of American cement, which would be offloaded to the Philippines tariff free for government projects both large and small, thus providing an early example of the now common practice of “dumping.” Indeed, a lasting global oversupply of cement meant that despite the fact that the Philippines possessed an abundance of the necessary raw materials to produce Portland Cement, its first production plant did not open until 1914, largely as a response to wartime shortages—and even then its production was spotty. In any case, it was hardly needed, as all of the components needed to construct a reinforced concrete building — the Portland cement, rebar and other elements of reinforced concrete systems, though heavy, were also extremely portable, this was especially the case with Portland Cement which constituted only 7-12% of the final concrete admixture. The bulk of concrete’s admixture consisted of locally sourced materials, a fact that

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15 The global stabilization of price was in fact the only significant benefit to American Portland cement producers. That is because much of the Portland cement used in the Philippines was not American on account of the fact that due to the costs of shipping, American producers were unable to beat German, Japanese and British (Hong Kong) prices even after Americans collected a tariff. Besides, American cement was in high demand following the 1905 San Francisco earthquake, and especially after the first large payloads of Portland cement began to be shipped to the Panama canal site starting in 1907.

16 Cement was readily abundant from suppliers with plants in Japan, China, Hong Kong, and French and British East India all of which had long established markets and the further advantage of cheaper fuel and cheaper labor. Any cement operation was thus limited to the economic opportunities offered by the local market alone. The first plant, built in the Rizal province (making use of rich limestone deposits in Montalban and Binangonan), was opened with the technical aid of Germany’s Krupp Group. It had a limited capacity of 600,000 bags per year.

17 This low ratio of cement to other materials was not the generally used ratio, which at the time varied anywhere between 10-25% when used in the United States. These ratios were calculated according to the standards set by the Bureau of Public Works, which specified four grades of concrete. Regulating the quality of Portland cement (a task taken up and still controlled by ASTM) had not yet been adopted.
made Portland cement an ideal material for global circulation. That the main component of concrete came into the colony in bags of formless powder—a material traded in standardized units meant that the sourcing of materials was reduced to a simple bidding process. Once packaged it rolled onto ships for trans-oceanic trips in the conveniently transported barrel or bag. If it was intended for a government project, it arrived on military vessels as free freight, travelling as ballast, tariff free upon its arrival in Manila.  

Every other unit of cement, including those imported from the U.S. (the vast majority of cement used in non-government projects in the Philippines was from either European or Asian suppliers due to advantageous freight rates) was subject to a 7 cent tariff, a tax that constituted a significant source of revenue for the insular government. It is in these ways that the pervasive use of the material helped to thrust the Philippines more insistently into a rapidly developing global economy.

The global cement industry, however was still in the rocky years of its early development. While units of measure were standard, standards of quality were not. In the absence of global standards, and in the presence of unfamiliar tropical conditions American engineers and architects experimented with different admixtures, calibrating each batch for the specific needs of each project. Here the Bureau of Science met an immediate need, testing samples of Portland Cement of often highly variable quality for its eventual use throughout the archipelago. In the early years the Bureau of Science’s cement-testing laboratory made small

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18 Before 1907 all cement not used in government projects was subject to a 7 cent tax (including American cement). After the passage of a new tariff law all American cement came in tariff free.
19 The ASTM (The American Society for Testing and Materials) was established in 1898 to address the frequent rail breaks affecting the fast growing railroad industry.
briquettes from the cement of each barrel in order to determine its quality. Though this practice became untenable as the importation of cement rapidly increased, by 1918 10,000 samples of Portland Cement were tested every year. In this sense the laboratory acted not only as an experiment station but also as an important instrument of quality control.

Figure 4.10-4.11 (left) The Bureau of Science’s Fairbanks testing machine, used to test the strength of concrete pipe. (right) The Bureau’s cement-testing laboratory.

Experiments conducted in the interest of concrete’s long term use on the islands were aimed at developing the archipelago’s mineral resources and to “adjusting to tropical conditions.” Towards this end local clays were tested for their hydraulic properties, limestone samples were tested for purity, different sands (some fine and silty and dredged from Manila’s delta, some coarser and made of pulverized coral and shell from the shores of Batangas and Mindoro) and larger aggregates (smooth ones harvested from the Pasig River bottom and coarse aggregates mined by prison laborers toiling on the inland island of Malahi) were tested for their relative merits. Raw materials for the production of either cheap substitutes for Portland Cement and/or for the future production of it were also tested at the laboratory.
Figure 4.12-4.14 Different samples of concrete illustrating the effect of different classes of aggregate and cement. The first sample shows a crushed cube of concrete, showing disintegration of gravel, where “the low compressive strength of 1,011 pounds per square inch was due entirely to the use of poor gravel” The second image shows a crushed cube of concrete in which the same brand of cement was used, but with first class aggregate, achieving a compressive strength of 4,200 pounds per square inch, and Figure 3 shows a crushed cube of concrete form the Abatan river showing the effect of using gravel covered with green algae. All from Eleventh Annual Report of the Bureau of Science.

While many of the laboratory experiments were conducted as a means of adjusting to and understanding what were in fact different environmental conditions, much of the work, especially that tied directly with construction was done as an outcome of a racist bad faith, as a means of compensating for what was viewed as the native’s endemic lack of knowledge and what was presented as almost congenitally poor workmanship. Any accomplishments of note were therefore presented as happening in spite of Filipino labor, not because of it. As a means of compensating for what he considered to be the inferior workmanship of the natives J.C. Koch, an engineer working with the Bureau of Public Works revised standard engineering equations, multiplied safety factors and used “low constants.”  

James W. Beardsley, also of the Bureau wrote, when speaking of the accomplishment of the construction of the Manila Railway, called it “The Manila Street Railway “a striking object lesson of what efficient supervision can accomplish with Filipino laborers. J.C. Koch “Methods and Practice in the Design of Reinforced Concrete with Special Reference to Tropical Conditions in the Orient” in The Far-Eastern Review; Engineer, Commerce, Finance. Vol. 3, No. 8, January 1907, pg. 239
was considered contingent upon the characteristics of two racially defined groups—a low-skilled and generally undependable Filipino laborer, and a usually white American and knowledgeable supervisor. This view of the unskilled Filipino, of course did not square up with the fact that every native knew how to build their own home out of bamboo and nipa, a practice that most rural and large numbers of urban Filipinos knew from beginning to end. These same men, however were wholly unfamiliar with the mold making, mixing, and rebar placement required of reinforced concrete construction. Kahn truss bars and barrels of concrete arrived as an alien kit of parts. When tasked with building a large project, the labor of the natives was neatly divided such that one crew scarcely understood how their work related to the work of others. These barriers to learning the methods of the modern trade were exaggerated by the fact that, especially in the early years, virtually none of the workmen spoke English, relying heavily on American or English speaking Filipino foremen for their piecemeal instructions. Large buildings and huge public works projects appeared before their eyes, with an astonishing and magical suddenness—enormous and sublime constructions that seemed to belie their own contributions.

Here we will turn abruptly, though necessarily back to Witt’s bamboo house. At this point, we can see, with far greater clarity, the major disadvantage of bamboo as a building material. The natives, when living in nipa homes, unserved by concrete infrastructure, were nonexistent as consumers, were untouched by the concrete band that promised to be able to fully fold the archipelago into a productive and profitable global American Union. Building their houses out of abundant, natural and rapidly renewable resources would do little to contribute to an economy that relied upon growth and accumulation. Providing a very literal illustration for this scenario is the frontispiece for Forbes’ book, *The Romance of Business*, a book published in
1921, the same year Forbes would return to the Philippines to finish what he considered some unfinished business. The caption to the illustration reads, “half-naked creatures in crazy shelters of grass, mud and leaves.” In the illustration the male leader of the household stares across a foreshortened ocean and a landscape dwarfed by a skyline that floats above the clouds—seemingly without foundation.

Figure 4.15 (left) The frontispiece to William Cameron Forbes’ The Romance of Business. The caption reads “A few huddled, half-naked creatures in crazy shelters of grass, mud and leaves.

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22 Forbes returned to the Philippines almost immediately following the inauguration of a new Republican president, Warren G. Harding, on a “fact-finding” mission, that was in fact a thinly veiled attempt to reverse many of the reforms introduced under the Wilson administration, which under Governor General Francis B. Harrison took moves to transition the Philippines towards political independence.

23 The caption is an excerpt from the text, which perfectly demonstrates a form of Social Darwinism in which ‘evolution’ was a benefit conferred upon colonial subjects. I quote at length here:

We have watched the result of this growth of business and have seen how it has raised peoples from absolute savagery—a few huddled half-naked creatures in crazy shelters of grass, mud and leaves, wondering what scourge of pestilence, or savagery of man or beast, will next fall to their lot—to the comfort and security of the present times in our own country, where laboring people have an abundance of things we now regard as necessaries, which before were regarded as luxuries reserved only for kings. William Cameron Forbes, The Romance of Business. Boston: Houghton Mifflin Company, 1921. Pg. 234.
American technology appears here, as an imposing and powerful opposition. Here, the vertically extruded frontier pushes towards the native, and is staged as a ‘choice’—between ‘insanity’ and what was both an inevitable and more civilized future. To choose the metropolis in the air was depicted here as the *only* logical choice. *Liberty*, is presented not as a power of self-determination, but rather as the ability to accumulate wealth through the construction of a durable material state—free from the over-determinations of a malevolent nature. It was a triumph over the cyclical environment of the tropics and a victory over the organic decomposition of the native landscape. Conspicuously missing from Forbes’ metropolis are the bright white Neoclassical temples that were by then the familiar symbols of an American democracy. Democracy, Forbes argued was little more than a protracting process, unable to produce material benefits. In Forbes’ ideal city, democracy would not be allowed to imperil the health and profitability of the colonial project. After all, the “real problem,” of colonial governance, and indeed of American governance in general, had less to do with how to execute the will of the people than it had to do with producing valuable and quantifiable returns—material benefits, he claimed, intended ultimately for the Filipinos. As Forbes himself stated in his inaugural address as the Philippines’ fifth governor general:

>The real problem before the Philippine people is not their political status… The real problem is the industrial development… and my advice to people who have been thinking about political changes is to get busy and devote their attention to the practical questions confronting us—things where there is something to be done… things, by which money can be made… No change in the civil status of the government will do that. The government is good enough now, it is all right.\(^{24}\)

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\(^{24}\) From the Inaugural Address of William Cameron Forbes, Forbes Papers (Houghton Library, Harvard): fMS Am 1192.4 v.7, 2295 ff.
What the frontispiece does not disclose is that while the spectacle across the expanse might have appeared as almost irresistibly attractive to those living in the “crazy shelters,” that very same city as seen from across the divide was in fact far more dependent on the ‘primitive conditions’ that foreground the entire scene. The prosperity and very stability of the American city, which here stands in for the American system as a whole is, as noted by the eminent corporation lawyer and fomenter of the Spanish American War, William J. Calhoun, rooted in American expansion into “virgin, growing, expanding and absorbing” territories.\textsuperscript{25} Indeed, American colonization was seen as the potential answer to the instabilities introduced as a result of industrial over-production, what Theodore Roosevelt characterized as “the overflowing abundance of our own natural resources…skill… business energy, and mechanical aptitude.” The economic volatility that was an outcome of this over-productivity was experienced in the form of the devastating economic crashes of 1893. At the same moment that Turner announced the close of the American frontier, the United States was also experiencing the effects of a productivity that outpaced the growth of demand.\textsuperscript{26} Roosevelt, following upon the thinking of several prominent theorists of the American economy (economics as a discipline had not yet fully taken shape) like Brooks Adams and Charles Arthur Conant, argued that this new economic instability could be remedied, as it had always been remedied throughout America’s short though extraordinary history through territorial expansion. In short, they realized that the stability of the American economy relied not on stasis, but rather upon growth—then understood very straightforwardly as physical and territorial expansion. Colonial activity beyond the Pacific

\textsuperscript{25} William J. Calhoun quoted in Martin J. Sklar, \textit{The United States as a Developing Country}, pg. 84.
\textsuperscript{26} In this light one can see more clearly the Columbian Exposition not as a celebration of American accomplishments, but as an event that itself was intended to keep a vessel treacherously overloaded with American goods afloat.
shore would allow, the United States, or so these men surmised, to create conditions historically consistent with the previous period of steady and healthy economic growth—the period of the United States’ continental expansion.

This expansion, however would be driven by a different set of forces than continental expansion, which was driven, in the main, by the interplay of a vast and sparsely settled continent and the development of the United States’ immense network of rails—which itself played a central role in the rise of the first very large American corporations (steel and coal). Nevertheless, as Emerson portended, a sequel was coming,

“I hear the whistle of the locomotive in the woods. Wherever that music comes, it has its sequel. It is the voice of the civility of the Century saying, ‘Here I am.’… it is prophetic: and this Cassandra is believed… How is real estate here— in the swamp and wilderness?”

Six decades later, it was none other than Emerson’s own grandson, one William Cameron Forbes, who would fulfill this prophesy of an American sequel. It would not, however be a sequel delivered by rail. Reinforced concrete would allow empire to jump across a gaping ocean. It would board ships and make real estate out of tropical swamps and push into every territory of the archipelago to make undeveloped land both habitable and profitable.

Despite this leap across the ocean, and despite the different nature of expansion, there are continuities to be found. The image on the left is of George Inness’ now famous “Lackawanna Valley,” a landscape study set apart from the work of Inness’ Hudson School predecessors in that it seems to commemorate the onset of American industrialism. The image on the right was taken by an anonymous staff photographer for the Philippine Bureau of Public Works, who perhaps only half wittingly captured a particularly picturesque bend in the Philippines’ rapidly expanding system of roads.
When Inness painted “Lackawanna Valley,” he too only half-wittingly captured the very image of empire. The painting, commissioned in 1855 by John Jay Phelps, an early railroad baron and financier, for a fee of $75 depicted a roundhouse amidst the signs of future development. It was intended to be an advertisement, though it was never used for this purpose.\(^{27}\) In the painting, a powerful steam engine, having just left the station, pushes through an already cleared landscape of tree stumps. About three years later Inness painted a work simply titled “Roman Campagna,” in which a man, who appears to be a shepherd, peacefully contemplates the infrastructural ruins of a past civilization. The later painting recalled, perhaps not coincidentally his painting for Phelps, in that the ruins of infrastructure sat not at the center of that past civilization, but at its edges—the furthest reaches of its expansion. That is to say that for Inness, as was the case for many Americans, empire was a creeping realization—a conquest won not only by “splendid little wars” and “savage wars of peace,” but made durable by infrastructure and through the use of

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\(^{27}\) This is perhaps on account of the fact that the painting did not prominently display the company’s initials, as was requested of Inness. This is also perhaps why, George Inness himself somewhat incredibly happened across his own painting in a junk shop in Mexico City thirty years later, where the shopkeeper valued the slightly damaged gilded frame more than the painting itself. Inness bought the painting, who he passed on to his daughter at the time of his death. After passing hands a few more times it was finally purchased in 1945 and given as a gift to the National Gallery of Art.
Thus, the two paintings, and the photograph of the Sabang Bridge communicate the very same meaning—that vast territorial empires were sewn together by unbroken bands of infrastructure.

![Figure 4.18 George Inness “Roman Campagna”](image)

When Caesar took an eastward ride and grabbed the Gauls of Rome,
What was the first thing that he did to make them feel at home?
Did he increase the people's loads and liberty forbid
No; he dug in and built good roads—that's what Caesar did.

Did Caesar put the iron heel upon the foeman's breast,
Or did he try to make them feel that Roman rule was best?
What did he do, to make them glad he came their lands amid?
He built good roads in place of bad—that's what old Caesar did.

He built good roads from hill to hill, good roads from vale to vale;
He ran a good-roads movement 'till old Rome got all the kale.
He told the folks to buy a home, build roads their ruts to rid,
Until all roads led up to Rome—that's what old Caesar did.

If any town would make itself the center of the map,
Where folks will come and settle down and live in Plenty's lap,
If any town its own abodes of poverty would rid,
Let it go out and build good roads—just like old Caesar did.

—Anonymous Published in the *Quarterly Bulletin of the Bureau of Public Works*

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28Roosevelt famously characterized the Spanish American War as a “splendid little war,” while Kipling indirectly referred to the same war as a “savage war of peace” in “A White Man's Burden.”
Concrete and the Racial Alchemy of Development

“What sort of Alchemy will change the Oriental nature of their blood?”

-Victor G. Heiser
Philippine Director of Health 1902-1908

Figure 4.19-4.20 “The Metamorphosis of a Bontoc Igorot” This was the frontispiece to the second volume of Dean C. Worcester’s book The Philippines Past and Present.

We have seen how environment has wrought changes upon animals, and even wiped out certain species altogether—as the discovery of numerous skeletons of mammoth animals of prehistoric days has proved.

Changed conditions not only require but force new forms. When a new environment replaces an old one, old forces build in new ways, in order to adapt themselves to altered circumstances.

I think it is certain that, if our environment in future changes as materially as it has in the past, alterations as great as that from fish to man and from gills to noses will occur in the course of future ages.

Thomas Edison
It would be difficult, if not impossible to tell any history of colonialism that is not also a history of race. This is true, even if one focuses on the history and agency of a material. Still, that focus faces the danger of writing out the very object of this dissertation’s concern—the people that inhabit the Philippines. It helps, however that for a time—the very time under examination that questions of race were explicitly bound to imperatives of development. Race, in fact was considered the very object of developmental practice as it emerged at the turn of the twentieth century. While the origins of “economic development” as an umbrella term covering a set of policy interventions aimed at improving a foreign nation’s (or a colony’s) economic competitiveness is usually traced back to the Marshall Plan, the practice has far deeper roots in American history. One of the reasons it may be difficult to trace this history however, is perhaps because the object of development was not always considered to be the “economy” as such, but rather “race,” which provided the foundation of a logic that beginning in the late nineteenth century was widely believed to organize life, science, and society. As the United States moved to expand beyond its Pacific Coast, its self-image became increasingly tied to new ideas about an emerging American race—one shaped not only by its ancestry, but in very direct ways by the ‘challenging’ American environment. These ideas about race combined a spurious interpretation

29 The story of race in the Philippines is a long and complicated one. Thus, my explicit treatment of race in this section is necessarily limited to the still too broad theme of “development.” Fortunately, the issue of race is dealt with in far more detail in Paul Kramer’s *The Blood of Government*, in which the author argues that the story of race in the Philippines is one shaped not only by the American colonization of the Philippines, and what Kramer calls the “plastic” … “racial formations upon which American politics was grounded,” but also the 300 years of Spanish colonialism that preceded it. The distinct racial formation of the Filipino subject, Kramer argues, owed its outlines to both transnational forces and local contingencies. It was, he continues a “distinct evolutionary and tutelary framework (that)... accommodated elite Filipino demands for political participation while forestalling broader and deeper questions of independence.”

30 Thus the term “racism” was not used to describe the hatred of another race, as the supposed truth of race and racial difference was a widely held belief.
of Darwinism with a belief in the positive and transformative effects of American technology and industrial progress.

Perhaps the clearest articulation of this ideology was published in the annals of the *The Journal of Race Development*, a publication widely considered to be the first American academic journal of international relations, today published under the comparatively colorless moniker *Foreign Affairs*. The progress of this school of thought was measured in terms of human “development,” which was then seen as the noble pursuit of a superior race—the Anglo Saxon race, which was providentially charged with improving ‘inferior races.’ This idea of racial progress went far beyond the improvement of economic conditions that are the more familiar basis of contemporary developmental practice. Instead, these changes were thought to act on race itself. In fact, it was believed by many race developers that these changes could be evaluated, not only in behavioral or intellectual terms, but by biological and physical measures. Franz Boas, who served on the journal’s editorial board famously measured the heads of immigrants and their children in New York City, aiming to challenge the physical basis of human racial categorization. Measuring heads of people from central and southern Europe, Boas determined that within one generation of arrival there were measurable changes in head and body form—changes attributable to nutrition and hygiene. New York was nothing if not a monument to the human’s ability to change the environment, and if that built environment had the power to shape race, the race developer could begin to scientifically pursue a “positive” direction for ‘inferior

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31 What the original title of the journal reveals is that in the emerging discipline of International Relations race and state were twin units of analysis. *Foreign Affairs* is the house publication of he New York Council of Foreign Relations. Before it was renamed *Foreign Affairs* it was first renamed in 1919 as the *Journal of International Relations*. See Robert Vitalis “Birth of a Discipline” in *Imperialism and Internationalism in the Discipline of International Relations*. David Long and Brian C. Schmidt. Eds. New York: SUNY Press., 2005.
races.’ Boas’ ideas were generally considered a “progressive” theory of development, as opposed to a more ‘conservative’ idea of racial fixity. In measuring the mostly positive effects of the American environment on the human physique, race developers identified a new task, which was, quite simply, to construct environments considered most conducive to the development of inferior races.\(^{32}\) This was the natural conclusion to the idea that the superiority of the Anglo Saxon was, as seemingly supported by Darwinian or Lamarckian theory, the result of environmental shaping. Boas, however did not measure the skulls of men and women living the fields and forests of the Anglo-Saxon’s racial forbears; he took measurements of immigrants living in New York City, an environment that was not only the supposed product of Anglo Saxon genius, but was also now being viewed as an environmental machine for producing and reproducing the features of an advanced industrial race. In the inaugural issue of the the journal, one of the founding editors, George H. Blakeslee attempted to describe its mission, which he envisioned as

…a forum for discussion of the problems which relate to the progress of races and states generally considered backward in their standards of civilization… aim(ing) to present… the different theories as to the methods by which developed people may most effectively aid the progress of the undeveloped. It seeks to discover, not how many weaker races may best be exploited, but how they may best be helped by the stronger.\(^{33}\)

The academic questions that undergirded the discipline of “race development” were focused on the how to and not the why of racial development. Accordingly the first articles to appear in \textit{The Journal of Race Development} were not delivered by academics, but by colonial functionaries—those with experience in the “field.” Among those first articles was an edited lecture delivered by

\(^{32}\) Boas made the strange observation that New York’s environment seemed to exert deleterious effects on the Sicilian head.

James W. Beardsley, the former head of the Philippine Bureau of Public Works. Catering his speech directly to the topic, Beardsley opened his lecture with the observation that in the Philippines, “(t)he American government found a Malay people, the great mass of whom did not know the value of thrift.” Thrift was a virtue that Beardsley argued Filipinos, on account of their tropical origins did not ‘naturally’ possess. This, in Beardsley’s view, was not the result of an arbitrary heredity, but was rather the outcome of environmental pressures. Capitalism, which Beardsley and others linked to the Anglo-Saxon race and civilization was the outcome of having to provide “for themselves sustenance and shelter during the ice-bound months of a northern winter.”

That is to say, because Filipinos and other races that evolved in the tropics were surrounded by a copious and seemingly inexhaustible bounty, a virtual Garden of Eden that required little work to cultivate, they had failed to develop beyond being indolent gatherers of the fruits of nature. The solution to this lack of environmental pressure, Beardsley offered, was an industrially fortified environment, which would provide to the natives a second nature, through and with which the Anglo Saxon could actively develop their new subjects. If evolution was a process by which the Anglo Saxon was shaped, development would be the process by which the Anglo Saxons—the master race, (who have demonstrated their mastery over a vast and difficult landscape) would shape other races, largely through a transformation of their environment.

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34 Thrift is equivalent to Adam Smith’s term, “previous accumulation.” Adam Smith argued that capitalism had its origins in thrift who argued that individuals who had a preference for future over present consumption invested their income and became the first capitalists. In a certain sense, this is true in that by not consuming their wealth, they are free to reinvest it in a production process. However, Marx argued that the story of thrift was one sided. Capitalist accumulation takes not only savings to invest, but also workers to employ who have no other means of supporting themselves. Thrift only describes that there must be a surplus available that can be invested. This surplus could be achieved through thrift, but where, Marx asks do the free workers come from?
Though race was considered a site of colonial development, race was never really the object of “race development,” presenting it as such was simply a way to lend a scientific gloss to what was by then an American tradition of racism. The foundations of this tradition, whether justified by specious ‘scientific data,’ or historically justified as a ‘natural’ entitlement, served as the legitimizing backbone of an economic system (a way of guaranteeing an inexhaustible supply of cheap or free labor). While economic motivations were not always explicit, they were increasingly so under the rubric of race development, as revealed in Beardsley’s address:

The observer of rice cultivation and harvest… will not question the capability of the Filipino to labor. He is especially apt where deftness of hand is required, as in drafting and typewriting, and is quick to learn to operate machines…. The motormen of the Manila Street Railway, most of the chauffeurs, the engine drivers of the railway and of the coastwise vessels, are Filipinos. They are not efficient in lines requiring independent action and personal responsibility. Their work along these lines requires competent supervision based upon a knowledge of their character and local dialect. The engineer or contractor who cannot or will not learn this lesson of supervision cannot succeed in handling Filipino laborers.35

Here Beardsley describes the Filipino in terms of his or her place within the logic of industrial capitalism. They are valuable in their “deftness of hand” and were “quick to learn to operate machines.” At the same time Beardsley also outlines the Anglo Saxon’s proper role vis a vis his description of the Filipinos’ inability “in lines requiring independent action and personal responsibility.” The engineer or contractor (presumably Anglo-Saxon males) who cannot “learn the lesson” (of their own role as supervisor) “cannot succeed in handling Filipino laborers.” Beardsley seals his argument of the Anglo Saxon’s managerial birthright by ruling out any legitimate Filipino claim against American rule, as the Filipinos besides being “indolent, unreliable and inveterate gamblers” are also “easily led by vicious demagogues, who fatten on

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false patriotism and are greedy for personal power.” Despite these regrettable characteristics Filipino laborers are redeemed by the fact that “they are easily influenced towards good citizenship by those in whom they have confidence and who are familiar with their customs.” Beardsley then offers tips on managing Filipino happiness by specifying that “they love music and their homes, and are childlike in their anger and affection.” The improvement in their personal traits however, Beardsley wrote will “require a modification of traditions, customs, and language.” Beardsley goes on to demonstrate race development’s status as a science, by carefully parsing the Filipino body and its ability to labor as compared with “American labor:”

Height and weight are suggestive of physical power. The average of several hundred measurements of matured men gives a height of five feet 3.5 inches and a weight of 116 pounds. The average efficiency of labor as compared with American labor is about one-third, ranging from a high average where quickness and deftness are required to about one-sixth where physical strength and weight are necessary. Experiments made by the army indicate that an increased efficiency can be attained by substituting nitrogenous foods for the prevailing characteristic diet of rice and dried fish. As compared with other oriental countries the wages of the Filipino laborer is high. Under American supervision the Filipino is beginning to understand the meaning of “dignity of labor,” a term unknown under compulsory labor systems, and where no necessity exists for providing food for the months of winter, and where the needs of shelter and clothing are so slight.

Beardsley offers all of this before turning towards the actual work of the Bureau of Public Works, one of the main goals of which was to optimize the retention of labor, a practice that would be perfected by developing knowledge of racial types and local habits:

In order to retain the laborers and their families for a reasonable period of time in regions sparsely inhabited and where large forces are required, it is necessary to

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36 Here Beardsley points to the fact that several nationalist forces were led by an often corrupt and profiteering Filipino elite who, more often than not, were the men directly trained by American tutors in ‘democracy.’ That is to say, the all white semi-public sphere discussed at length in Part I is eventually opened up to a very limited Filipino elite, what Paul Kramer, in The Blood of Government, describes as a new “culture of Filipino-American sociability.” For a full discussion of this “inclusionary racial formation” see Paul Kramer’s discussion of “fiesta politics” in The Blood of Government, pg. 185-90.

construct shelters, a hospital, a commissary provided with food, clothing and cigarettes, and also to furnish recreation and perhaps establish a church and school.\textsuperscript{38}

This is all to demonstrate that the imperatives and standard practices of what is today known as “economic development” or “modernization,” which are presented in the terms of altruistic aims of improving the economic, political, and social well being of an(other) nation’s citizens, was founded upon an explicitly racist logic.\textsuperscript{39} It is important to note, however that regardless of whether the rationale was race or the economy more directly, when it reappeared writ large as an economic idea, as a set of practices as they relate to foreign nations, it was not significantly different from the set of practices that developed under the rubric of race.

The Philippine Bureau of Public Works, (which was directly responsible for most of the projects addressed in this dissertation) built dozens of jails and municipal buildings, hundreds of schools, markets, thousands of miles of roads, sewers, bridges, culverts, water towers, military installations, large irrigation systems, and hydroelectric dams, the vast majority of it out of reinforced concrete. Every step of building this environment was thought of as a strategy to

\textsuperscript{38} Ibid.

\textsuperscript{39} It is important to note here that “race development” was an attempt to link America’s history of slavery to America’s imperial future under a single problem solving and ‘progressive’ rubric. Revealing the liberal and academic origins of “race development,” George H. Blakeslee, one of the founding editors of the journal makes explicit the new and noble interest of the “stronger races,” which lay in ‘helping’ as opposed to ‘exploiting’ the “many weaker races.” In explaining why the “United States has a fundamental interest in the races of a less developed civilization”), Blakeslee pointed to “…the continuing struggle to find some solution for the negro problem—a problem still unsolved.” This, he argued was the “key to the past seventy-five years of American history.” To this unsolved problem the United States added a new one, in “foreign affairs… the most important questions (of which) center about the Pacific Ocean—an ocean whose coasts are inhabited, for the most part, by nations of a more primitive culture than our own.” That is to say, the two separate scandals of slavery and American colonization were both sublimated and united under the academic banner of “race development.” In the case of both slavery and imperialism, questions of politics and representation were pushed aside in order to address a racial “problem” both reframed within and displaced onto a plane of academic inquiry. Race development, in other words served as a theoretical pretext for imperialism, and when re-formed as the field of International Relations, it served as the wellspring for many of the government’s paternalist actions and alibis.
develop not only the land, but the moral and physical virtues of the Filipino race. For example, the collection of taxes to build the projects, Beardsley wrote was a first lesson in public thrift; working for a wage taught the natives the “dignity of labor;” wages earned, never before saved due to the “danger of loss by robbery …greed and graft” would be guaranteed protection through the construction of secure concrete jails and permanent courthouses, while silos, water tanks and storehouses would protect against draught and famine. The containment of disease by means of constructing sanitary markets kept susceptible bodies disease free. Irrigation works would render their land productive beyond subsistence, and dams would unlock potentials never before imagined, all of this would make Filipinos not only better imperial subjects, but also a more industrious race—better citizens, consumers, and capitalists, improved by the benevolent forces of Anglo Saxon good will and the universally applicable lessons of ‘science.’

As Conant pointed out in the “Economic Basis of Imperialism”, “The necessity for carrying on such large enterprises as cotton mills, iron foundries, and canal, railway and steamship building by great aggregate sums of capital led to the division of the cost of the enterprise into divisible parts, which might absorb the capital of great numbers of men.”
Stability

Once emplaced, concrete is a remarkably stable material. In its end state it is neither chemically nor biologically reactive and under normal consequences it will not decompose. Not only is it stable, however, it also has the power to stabilize. Wherever land meets water, a dynamic edge exists. While not always subject to visible change, the mutability of their confrontation is disclosed in the course of geological and environmental time, through the sometimes slow and sometimes catastrophic processes of corrosion, erosion, slope failure, and seismic activity. Concrete’s use in the construction of ports, the canalization of waterways, the construction of dams, piers, breakwaters, and in the blanketing of vast urban surfaces, transformed dynamic landscapes by defining the fuzzy edges of shape shifting lagoons, by arresting the expansion and contraction of marshlands, and by binding eroding edges to their originally mapped contours, and by channeling rain water into an underground system of streams and rivers. In the age of concrete, to fix these lines and edges was to stabilize environments by introducing a steady temporality of growth—an affront to the sometimes destructive vicissitudes of nature and weather. It was an attempt, in other words to supplant the variability of environmental conditions with a stabilized, and thus accumulative capitalist ‘reality.’
The Concrete Foundations of American Empire

I have struck a city—a real city—and they call it Chicago. The other places do not count. San Francisco was a pleasure-resort as well as a city, and Salt Lake was a phenomenon.

This place is the first American city I have encountered. It holds rather more than a million people—with bodies—and stands on the same sort of soil as Calcutta. Having seen it, I urgently desire never to see it again. It is inhabited by savages. Its water is the water of the Hooghly, and its air is dirt.

-Rudyard Kipling

Kipling, who first visited Chicago in 1889 on a trip to the United States, penned his observations about the American West on a trip funded by the publication of those remarks in the Allahabad Pioneer and the Pioneer Mail, two of India’s leading English-language newspapers. His ruthless description is most remarkable for the comparisons he makes with Calcutta. Indeed, Chicago’s earth was soft and shifting, much like Calcutta’s. Like Calcutta it was teeming with people—a million rude capitalists and recent immigrants—“savages” as described by Kipling. Chicago’s water was like the Hooghly (a tributary of the Ganges), polluted by the effluence of so many abject bodies and even more cows, though in Chicago these were not sacred herds but, rather countless heads crammed into endless acres of stockyards. The air was dirt—thick with the aerosolized dung and carbon smoke of industrial progress. All of this muck is what made Chicago, as Kipling asserts, a real city—the first he had encountered in the United States. Having arrived just four years before the opening of the Columbian World’s Fair, he observed that the papers were already “ya-hooing and hi-yi-ing” at each other in “some sort of dispute

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between New York and Chicago.” For Kipling, the dispute, over which town would have the honor of hosting the next World’s Exposition was a tussle, that Kipling wrote, was unworthy of the city’s “more dignified journals.”

A short time following the publication of his essays in the Indian journals, they were pirated and published in several major American newspapers, most notably in the Chicago Tribune. Hundreds of letters poured into that newspaper from proud Chicagoans vying for their turn to lambast Kipling’s snobbish derisions. But then, very suddenly the Columbian Exposition flung its gates open to the awe of millions. If there were insecurities fueling the retaliations against Kipling, Chicagoans would use Daniel Burnham’s Dream City to deflect further slander. Kipling never visited the fair, nor would he ever publicly comment upon it. It is doubtful that he would have been pleased by its appearance, having already demonstrated an immunity to the spectacle of Chicago in its more ‘genuinely’ opulent forms. He understood that the ‘miracle’ of the city was no more than a gilded feat of engineering; a mere technological achievement and even worse a vulgar display of new wealth. No amount of artfully modeled plaster would convince him that culture had taken root.

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3 Kipling’s article was prefaced by a leader that read: “And Now We Catch It: The Mighty Rudyard Has Been Here and Gone Away Mad | HE DOESN’T LIKE US A BIT. | We’re Savages, We Lust After Money and We Have ‘No Color’” in The Chicago Tribune, February 8, 1891.
4 Though he did not visit the Chicago Exhibition, visiting the Exposition Universelle in Paris in 1878 was a formative moment in young Kipling’s life. His father, John Lockwood Kipling, who spent most of his career in India was an artist, teacher of architectural sculpture and museum curator was in charge of the Indian exhibits. Kipling writes of his trip to Paris, which he described as “an education in itself” in Something of Myself and in the opening pages of Souvenirs of France. If anything, the contrasts between the two fairs (for example in Chicago industrial achievements like the stockyards were famously celebrated, while the Exposition Universelle, in Kipling’s eyes, at least focused on the celebration of achievements in science and literature) would have only underscored Kipling’s disgust with Chicago.
5 In that same article, Kipling wrote “They (the Chicago officials who wanted to impress Kipling) told me to go to the Palmer House, which is overmuch gilded and mirrored, and there I found a huge hall of tessellated marble crammed with people talking about money, and spitting about everywhere.” Ibid., 92.
When Kipling compared Chicago to Calcutta he did not intend to insist, as I will that Chicago was an American colony. The Latin words *colonia* and *cultura* are both derived from the word *colere*, “to inhabit, cultivate, frequent, practice, tend, guard.” That is to say, that at its conception, the colony was the very place where culture took root. Initially the growth of Roman territory was nothing more than a juridical categorization intended to legally incorporate organic expansion just beyond Rome’s Aurelian walls. Over hundreds of years, as Rome incorporated more distant locales under its legal banner, Roman colonization evolved into a highly ritualized technical procedure. However, beyond the pomp and legal formalities, for which textual evidence exists, we can more positively identify *Romanitas* archaeologically, not only through a set of typical urban structures; the *cardo* and *decumanus*, the *forum*, the *basilicum*, *curiae* &c., but through an increasingly complex set of architectural, agricultural, masonic and engineering techniques. Kipling’s comparison of Chicago and Calcutta is grounded within this same material world—albeit one transformed by the disenchanting realities of industrial commerce.

Two decades after the Fair’s closing, William Cameron Forbes, then serving as the Governor General of the Philippines would write enthusiastically to Kipling, his friend, correspondent, and colonial mentor of sorts, about his achievements in the American colony. He

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6 Following a Senate directive, surveyors were dispatched to identify and lay out the site; their base-point was the crossing of the *cardo* and *decumanus*. Following these lines, surveyors laid the *centuriae*—the rectangular blocks of the main town, the boundaries of which were marked with large stones. This was followed by the *deductio*, or entrance of colonists. Arriving in numbers varying from three hundred to twenty thousand men, they marched upon the site in tight rows under a Roman standard. Then, in ritual dress the senior colonial commissioner ploughed a furrow with an Etruscan steer and cow (distinctive for their white color) to mark the course of the exterior wall. The plough was lifted wherever there was to be a gate. Plots of land were then assigned to colonists by lot, working from the outside in (a means of protecting the interior from the enemy). A map of the area, the *forma Urbis*, was set up in the market square, usually engraved on bronze, while a duplicate map was deposited in the archives in Rome. The commissioners then drew up the laws, set up a census, appointed magistrates and priests, and named the members of the assembly. From that point on, colonists were on their own, the commissioners being regarded as the patrons of the new foundation. P.L. Mackendrick, “Roman Colonization” in Phoenix, Vol. 6, No. 4 (Winter 1952), pg. 138.
was especially proud of his quick delivery of an American education system, achievements that he hoped would impress Kipling. Kipling replied with the following lamentation:

I am grieved to notice your enthusiasm for education in the abstract, and your pride in the increase of educational facilities. In due time, say in two generations, you will reap the reward of your beneficent policy – as we are already reaping the reward of ours in India – in the shape of prolonged and elaborate rebellion, sedition and treason – this is almost axiomatic. The beauty of education is, that like drink, it awakes all the desires and at the same time inhibits (if this is the correct medical term?) most of the capacities. But these are things which I know I cannot persuade you of. The only things that matter in this fallen world are transportation and sanitation.  

Coming to terms with the wreckage of his own idealism, and sounding fully disabused of the idea of imperialism’s civilizing mission (the ‘noble’ freight of the “White Man’s Burden”), Kipling candidly states that the things that mattered most in this world were the very things that made Chicago a real city.

John Wellborn Root: Fire, a Teacher and Mud, an Education

In June of 1890, John Wellborn Root delivered a paper entitled “A Great Architectural Problem” to the architecture class of the Art Institute of Chicago. The subject was the high office building. During the lecture Root gave a detailed account of the various ‘real’ problems associated with constructing the “tall office building,” including exhaustive descriptions of technological advances in fireproofing, a “general theory of foundations,” costs per cubic foot of

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7 Rudyard Kipling to William Cameron Forbes, August 21, 1913, Forbes papers, bMS Am 1364, Houghton Library, Harvard University. William Parsons developed a standardized system for school construction that resulted in the erection of thousands of schools all over the archipelago. Everything from concrete block, to chalkboards and textbooks were specified. At first these schools were staffed with American volunteers known as the Thomasites (named after the vessel they arrived in) to be eventually replaced by Filipino teachers, most of who received training at Normal schools that were also a part of Forbes’ education initiative.

8 Kipling’s lamentation reflects the challenges posed to nineteenth century idealist philosophy by the early twentieth century emergence of American pragmatism, a debate discussed in the introdu
a “general plan,” positioning of piping and shafts, the spacing of windows and the placement of burglar proof vaults, &c. Root acknowledged that everything that he had just described, was rarified and even banal information, and

[r]elates to those portions of the building with which the public at large can have but little interest, but which are the inner and significant principle about which every external aspect (of the building) must arrange itself. The truest and best forms which this external aspect is to present will be found by a reasonable appreciation of conditions of our civilization, of our social and business life and of our climatic conditions… all (of these) conditions… demand… the simplest and most straightforward expression. Bearing in mind that our building is a business building, we must fully realize what this means. Bearing also in mind… that dust and soot are the main ingredients of our native air, we must realize what this means."^9

Root understood that knowledge of dust, soot, fire, climate, and cost per cubic foot calculations would constitute the new expertise of the modern architect. This expertise would not, and should not (Root implies) interest or concern the public. Root here articulates the peculiar position of the expert as one who by virtue of his or her expertise operates in the interest of the public on realms of purportedly “little interest” to that very public. He thus unwittingly portends, or perhaps even plays a role in instituting the public’s alienation from certain types of knowledge—the very stuff that would shape not only Chicago’s growth and life, but the growth and life of cities across the globe. Root’s knowledge of modernity in the making had nothing to do with architecture as then conventionally or popularly understood—as a humanistic art. Rather, it was an expertise deeply rooted in the technical manipulation and mastery of Chicago’s particularly difficult material conditions.

Certainly Root was not the first to manipulate Chicago’s notorious mud. When Louis

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Jolliet first saw the Chicago Portage, the swamp presented itself as a grand, though achievable suggestion—an eight-mile long muddy morass, that during seasonal flooding allowed passage between the Des Plaines River, a tributary of the Mississippi and the Chicago River, which led to the Great Lakes. The passage could, he realized, connect the remote northern territories to the Gulf of Mexico, opening up great swaths of potentially productive land to international commerce. The engineering problem, at the time seemed simple enough—a canal cut into the earth only “a half a league” long could permanently link the two waterways. Nevertheless, it would not be until 1833, when Chicago was home to a still tiny population of about 200 white settlers that the Illinois and Michigan canal commissioners assembled to finance the construction of the first permanent link between America’s two great waterways. Establishing Chicago as one America’s most important commercial and transportation hubs, the canal instantly accelerated the rate of Chicago’s growth. Still encumbering this growth, however was the condition of its land. Chicago’s flat, flood prone, non-porous terrain was only slightly elevated above the surfaces of Lake Michigan and the Chicago River. Drainage occurred through large, unlined gullies known as sloughs, the largest of which was 80 feet wide at the Chicago river, an increasingly fetid tributary of human effluence and industrial waste. Chicago’s exploding population miserably coped until the early 1850s, when Chicago’s 60,000 inhabitants experienced a series of cholera and dysentery outbreaks. On February 14 of 1855, a Chicago Board of Sewerage Commission finally organized to address the problem, hiring Boston’s then current city engineer, Ellis Sylvester Chesbrough to design what would be the United States’ first comprehensive sewerage system. Merging his knowledge of sewer construction, grading, and the raising of buildings, Chesbrough undertook one of the world’s largest public works projects to date, in an attempt to lift Chicago out of its muddy origins. Chesbrough’s first move was to
establish Chicago’s new City Datum, which was set to be level with the surface of Lake Michigan.

As Chicago spread outwards, the remediation of the mud continued such that the city’s extents could be geologically or archaeologically identified by its upper eight feet of engineered fill. Chesbrough’s system would eventually allow for Chicago’s unrestricted urban growth, liberating the city from the limitations imposed by its natural condition. This liberation, I am arguing was a new form of colonization, characterized by the production of a common stabilized condition that protected colonial powers and their investments from risks (both real and perceived) endemic to certain difficult colonial environments. The technological amelioration of environmental conditions hostile to industrial and commercial production and reproduction would be the material basis of Chicago’s industrialized colonial *forma Urbis*. Chesbrough’s reformation of Chicago’s mud enabled Chicago’s early industrial capitalists to occupy and develop a site that though unparalleled in terms of geographic advantages, was unfit for either commercial activity or human inhabitation. As Kipling so astutely pointed out, Chicago’s earth was the “same sort of soil” as Calcutta’s, but this was not a condition of the earth and its local and ‘natural’ condition, but an outcome of a series of universalizing colonial techniques.

Though Chesbrough’s re-mediated earth accommodated structures built in the mid-nineteenth century, these structures did not typically reach beyond five stories. By the turn of the century, however rising real estate values would drive investors to demand more of Chicago’s soil, a demand that both architects and engineers realized might jeopardize the built city as a whole. On account of its precarious geological conditions, in Chicago, much more so than in other American cities, the land could not be simply divided by means of an abstract grid, as the load of a building on the soil had an immediate and direct affect on adjacent lots. For example,
even if a single building was evenly loaded in such a way that it settled evenly across its entire footprint, if a heavier building was placed next to it, it would cause its already built neighbor to tilt towards the heavier building. Chicago was thus governed by two different and often conflicting sets of laws—one being the written and abstract laws of property, and the other being certain unassailable physical laws. Colorfully illustrating this condition, an editor for the New York Times described Chicago’s earth as a “great jelly-cake” topped by a delicate 6’ deep “crust” of precariously stable clay. Voicing the concern of Chicago’s already existing business owners, the editor envisioned Chicago’s apocalyptical demise thusly:

Who shall restrain the great layer of jelly in Chicago’s cake? Who can say when (the jelly) will be released, to be mixed with the sluggish sewage of the river, and then to fill the streets and pour in at the windows, while the thin upper crust sinks to its ultimate resting place, on the lower clay?10

The editorial was written in hopes that the owners of the skyscrapers already built would unite to prevent the erection of additional, and especially taller buildings.11 Adding literal weight to their argument, they pointed towards how the crust had already failed under the strain of a number of already completed buildings. This happened, most famously under Adler and Sullivan’s Auditorium Building and under the Old Board of Trade Building, designed by William W. Boyington. In both cases settlement was greater than a foot and sometimes over three, as was the case with the Auditorium.12

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11 It is also safe to say that the editorial was also, in part motivated by a rivalry with Chicago, which as already mentioned, beat out New York to host the Columbian fair.
12 The settlement of Adler and Sullivan’s Auditorium, was a source of great embarrassment, especially to Dankmar Adler, responsible for the calculations. The episode was recounted by Frank Lloyd Wright in his book *Genius and the Mobocracy*, a sort of memorial to Louis Sullivan. It is offered as one of the central ‘tragic’ events of Sullivan’s career, in which Sullivan betrays his own genius by listening to the various demands placed on the building by the client. The changes, which included substituting terra cotta cladding with far heavier stone cladding, were made without recalculating the building’s total load, consequently overloading the foundation.
It was against these failures that John Wellborn Root distinguished his practice, developing geotechniques that would ensure the security of Chicago’s great jelly-cake. Indeed, if we return to Root’s lecture, we find that he spent special attention to the problem of building foundations, writing that,

[F]oundations… present some of the most interesting features of Chicago architecture or engineering. The … centre of the city is built upon a bed of clay, … capable of carrying loads of not more than three and a half tons to each square foot… greater loads create embarrassingly large settlements. Into this clay, every building… settles to a greater or less degree. In several cases this settlement is considerably over a foot.

This reality lay at the heart of what Root identified as the “Great Architectural Problem” of modern times. His first answer to this problem was the Grannis block building, commissioned in 1881. With the Grannis Block the newly formed firm of Burnham and Root would first take on the risky prospect of height, experimenting with a few new fireproofing techniques to allay the slowly waning anxiety of investors (still apprehensive a decade following the Great Fire). These experiments included the sheathing of cast iron pillars in terra cotta. Their efforts were ultimately
futile, however and only four years after the Grannis block’s completion it burned to the ground in an Icarian flash. It was not a total loss, however as Root was able to recover from the ashes his first experiment with the “floating raft foundation.” The foundation, a slab of concrete about twenty inches thick was reinforced with layers of steel rails, embedded to withstand both shearing and bending forces. Working according to the Archimedean principle of displacement, the raft prevented the uneven settlement of the building by distributing the load across its entire footprint.

Burnham and Root’s next major commission, the still standing Monadnock Building, was a heavily insured response to the total loss of the Grannis Block. The Mondanock’s cast iron columns were also sheathed in non-combustible materials—this time in stone masonry. At the Monadnock, however the columns performed almost none of the structural work. Instead, its thick, exterior masonry walls would bear the majority of the load. The result would be what today remains the world’s tallest wall bearing masonry structure, its fifteen stories was as tall as the skyscraper could go without entirely reconstructing the structural terms of the problem. The central issue was that the walls, which were thick at their base, and tapered towards the top of the building occupied a significant amount of rental space on the lower floors. While it may have seemed a regressive move to return to masonry, the masonry’s weight tested the upper limits of the raft’s capabilities, a guarantee that Root’s raft design would be able to withstand much heavier loads than far taller steel framed buildings that would succeed it. By this method, and by the heroic efforts to amend Chicago’s mud, the city became the unlikely birthplace of the world’s first skyscrapers, reorienting architecture’s frontier, not only towards the upper limits of the sky, but also towards a globe of diverse environmental conditions. This is where Kipling, Root, and Chesborough converge—upon the dirt of the ‘real world’—a world now potentially united by a
new set of universalizing techniques. Despite the public’s apparent lack of interest, what was happening underfoot, was nothing less than what were, in Root’s words, a “material revolution.”

Figure 5.3-5.4 Monadnock Building with section through pyramidal footings of the floating raft foundation. Take note of how the load bearing wall on the left hand side of the section is thick at its base and tapers towards the top.
“The Artist’s Mind’s Eye”

Figure 5.5-5.6 Jackson Park before its reformation and Jackson Park during the Columbian World’s Exposition. The Burnham Collection (the Columbian Exposition Photographs by C.D. Arnold, 1891-1894) Burnham and Ryerson Archives at the Arts Institute, Chicago.

On February 14 of 1890 it was announced that Chicago had been granted the honor of hosting the World’s Exposition. Forty years earlier, Chesbrough’s plan, a pragmatic solution to the problems associated with Chicago’s organic expansion lacked the ritual pomp and formal legal framework that were characteristic of the establishment of the Roman colony. Reborn as Burnham’s White City, Chicago’s remediated earth was escorted by greater pomp than the Romans could have possibly imagined. Burnham and Root’s work would begin with the selection of a site. Root’s first choice, a lake front parcel, which now roughly occupies the area of Grant Park lay adjacent to the Chicago Auditorium, bound between South Michigan Avenue and the shore of Lake Michigan. He proposed that the Illinois Central tracks, which then
occupied the site be depressed and covered, while a wide area of land be reclaimed eastward from the lake inside the government breakwater, by filling in the grounds and piling under buildings. This would create a hard edge along the lake while building a stable platform on which to build the fair. Root saw in this site an opportunity for a lasting public improvement in the heart of the city. During those early planning stages, however various legal difficulties related to procuring the land from the Illinois Central Railroad proved too difficult to overcome. Root’s second choice was Jackson Park, another lakeshore site, though this one sat on the edges of the rapidly growing city. Standing in his way, however, was the Senate appointed National Commission, the political body in charge of the Fair, which preferred a third site, the newly renovated Washington Park, which sat just a mile inland (west) of Jackson Park. The commissioners were, Root recalled, rather disgusted with Jackson Park, considering the “swampy wilderness” an inappropriate site for “Chicago …to receive the world.”

Root felt that the Commissioners lacked the proper imagination and “judged blindly from present conditions.” This left to Root the task of revealing what he claimed was only visible to what he called the “artist’s mind’s eye.” As a final plea to the Commission, Root drew up a report along with Frederick Law Olmsted, which they delivered, in a feigned impartial tone, citing the advantages and disadvantages of the two sites. Most importantly they showed that while the finished landscape of Washington Park would require a costly rehabilitation of a recently beautified area of Chicago, Jackson Park would be reformed and better off than it had been before—expanding the desirable territory of Chicago. Root summed up the comparison thusly:

It is difficult for one not experienced in technical consideration of such matters to rightly view this subject. In one case, a park now finished and beautiful is almost totally undone, presenting, during its temporary occupancy by the exposition,
scarcely a charm not equally possessed by any piece of wooded prairie, and after
its restoration retaining such scars and mutilations as may still, after so many
years, be witnessed in Fairmount Park as relics of (Philadelphia’s economically
disastrous) Exposition of 1876. In the other case, a piece of ground is presented,
like clay to the hand of a sculptor, with which anything within the artist’s capacity
may be accomplished.\textsuperscript{13}

Root’s argument, that only the \textit{experienced} could properly view \textit{this subject} was in part, a
fact of his own making—he was the central figure in the constitution of this subject, which in
this case was Chicago’s engineered environment—one that not only possessed natural beauty and
commercial advantage but, which also had the capacity to be shaped by man. What worried the
commissioners was the very fact of Chicago’s ‘natural’ condition—a condition made
imperceptible by the kind of heroic infrastructural reformations that Burnham and Root were
both witness to and responsible for. Root’s ‘vision’ was one shaped through years of working
with and in the medium of Chicago’s mud. Root was intimate not only with the possibilities of
the land’s reformation, but with the ability of dredgers, drains, pile drivers and sewers to separate
mud into two desirable parts—dry ground and picturesque water. Root did not live to actually
see the Fair, having died suddenly of pneumonia only six months before construction of the Fair
was to begin. The work, however began much as he imagined, rather unceremoniously with load
tests, which would be conducted by Burnham and Root’s engineer, E.C. Shankland. Describing
his experiences in a paper entitled “The Construction of the World’s Fair Buildings, Bridges,
Piers and Docks,” Shankland recalled the process of taking stock of the Jackson Park’s soil.
What he found was that under a load of 1 ton per foot, the settlement across the entire site
averaged a “respectable” 1/8” to 1-1/4”, with the exception of a crescent shaped swale of muck,
probably the bed of an old creek. Tests executed in this swale found settlement between 14” to

\textsuperscript{13} “Jackson Park The Site” in \textit{The Chicago Daily Tribune}. Wednesday, November 19, 1890.
38.” This soft swale of earth made it necessary to pile the entire south half of the Manufactures Building and the northeast portion of the Agricultural Building.

For the remainder of the site Shankland specified large spread foundations, essentially small floating rafts, which the engineer noted saved about $6,000 per acre over using piles, were used in the rest of the buildings throughout the site. The maximum acceptable load of the buildings could then be standardized at 2,500 pounds per square foot (including both dead, live and lateral wind loads), greatly simplifying the engineering and construction of the Fair’s buildings.\(^\text{14}\) Work continued with the dredging and grading of the site, which would eventually amount to the removal of largely upwards of one million square yards of earth. Ninety thousand feet of railway

\(^\text{14}\) Further simplifying matters of engineering and construction was the adoption of a single cornice height at 60’ and the use of a standard bay module. Design decisions that Burnham wrote were made in the interest of “unity” and “compositional harmony,” were in fact far more consequential in terms of streamlining the tasks of engineering, construction and especially of the industrial production of the buildings’ steel skeletons. That is to say harmony was not only formal, or limited to the architectural composition itself, but rather was also the result of Burnham’s ability to design in a mode congruent with the principles of industrial production.
tracks were laid to move material into and around the site. The entire surface of the ground devoted to building purposes was raised several feet for the purposes of surface drainage. All of the ground for planning was covered in a deep and fresh layer of loam, and a system of streets was made out of an aggregate sufficient for the uses of a large city. It was in this way that Burnham’s lofty dream was built upon a re-formed earth—as if Chesbrough’s sewer (a root system of sorts) forced a sparkling lotus out of Chicago’s putrid mud.

The anointing presence of white architecture heralded a new kind of occupation of the land. At the fair infrastructure was both ritualized and dramatized, and while the buildings were temporary, the infrastructure was not—a permanence that, after the close of the fair, eased the incorporation of the once swampy hinterland into the continuous fabric of Chicago itself. What would mark the exposition as a kind of colonization (as opposed to a mere organic territorial expansion) is the fact that it was built, in relative isolation from the metropole—at a distance

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from its frenzied center and gated off from its rapidly approaching limits. The exact distance did not matter so much as the fact that the White City could, as Alan Tractenberg put it, “enforce its lessons by contrast.”\(^{16}\) As a freestanding city, it presented itself by virtue of the comprehensiveness of its infrastructure and the beauty of its reformed landscape as something so different and new, it appeared to the viewer as an almost unbelievable “dream,” presenting its cohesive beauty as a complete alternative to the city it stood both metaphorically and physically apart from. This totality was wholly other to the ideologically driven “unity” that Burnham used to describe his axially organized Court of Honor (figure 2)—the all-white Neo-Classical assembly that represented a first turn away from the freewheeling non-plan of an American laissez-faire urbanism. This totality was not formal, more consequentially it was environmental and established itself far below the \textit{tabula rasa} of Chicago’s once scorched surface to eventually and more permanently occupy its difficult geo-territory.

On top of this \textit{tabula rasa} sat a city without citizens, one populated first by armies of contract labor and later by vendors and visitors. It was a city of things, an order of stuff—a giant \textit{wünderkammer} containing anything and everything of American manufacture, from Whitney’s cotton gin, to the world’s longest conveyer belt, bottles of Aunt Jemima syrup and the first automatic dishwasher. This world was effectively a sub-territory of Chicago, a city confined within both territorial and temporal limits. These limits generated a sort of internal logic—the driving force of which was the frictionless operation of the city itself—a dream and a project

\footnote{\textit{\(^{16}\) Alan Tractenberg, \textit{The Incorporation of America: Culture and Society in the Gilded Age}. New York: Hill and Wang, 1982. Pg. 211. This contrast would set the Chicago Fair apart from the Paris Exposition of 1876, in which the glassed in galleries of the fair were virtually indistinguishable from the glassed in arcades of the city that it was the Fair’s setting. Thus the Paris Exposition presented a commodified world without escape, while the Columbian World’s Exposition presented at least the semblance of escape.}}
unhampered by the messy and sometimes violent political and economic processes that played themselves out beyond its gates. Within these limits Burnham, as the self styled “Director of Works” enjoyed unlimited executive authority—to keep his city of things in order for the delight and amusement of its throngs non-citizens.\textsuperscript{17}

An Inland Empire Bound For the Sea

(Jackson Park’s) natural advantages are those which are most characteristic of Chicago—its proximity to Lake Michigan and its free use, not only of the rare beauty of this great sheet of water, but of such festive and Venice-like lagoons as may be supplied from it, imparting to the whole Fair grouped about them double enchantment.\textsuperscript{18}

For Root the most important feature of the site was its position on the water. Far more than an amenity, access to water was the very reason for Chicago’s existence. Being able to appreciate the site’s potential ‘beauty,’ where others saw nothing but a wasteland, was perhaps Root’s most significant feat of imagination. It did not matter that the water was unsightly, that could be changed. Emphasizing the importance of the water, the visitor’s approach from the lake was the most carefully constructed view of the fair—a view that most effectively presented the Fair as a new and just discovered land. It was only from the water that the visitor could apprehend the White City in its totality, a white apparition set against the invariable dimness of Chicago’s industrial skyline. The entrance from the water also eased the traffic of the hundreds

\textsuperscript{17} In my first chapter I discuss the process that leads to Burnham’s assumption of total executive authority over the territory and for the course of the Exposition’s duration (which includes the time of its construction and the time it is open to the ‘public’). At first the Exposition is ‘ruled’ by two bodies—the “Commission” —a Congressional oversight committee and the “Corporation” composed of private funders and local business leaders. Eventually this organization is dissolved, as infighting threatened to indefinitely postpone the progress of the Fair’s construction in favor of a corporate hierarchy, where Burnham occupies the top position, as the Director of Works.

of thousands of visitors arriving daily.\textsuperscript{19} It was, however the water’s recreational use, that was its greatest advantage. Before the reformation of Jackson Park, Chicago’s waterways and waterfronts were rarely used for recreational purposes. The Chicago River at the time—a noxious causeway for human and industrial waste was so polluted it regularly caught fire. Lake Michigan, Chicago’s source of fresh water, was until the reversal of the Chicago River and the construction of the Chicago Sanitary and Ship Canal (a project that broke ground at the same time as the Columbian World’s Fair), also the terminus for Chicago’s untreated sewage, a fact that forced the city on several occasions to push its water intake further and further from the water’s edge. And should Chicago’s citizens even want to view Lake Michigan, railroad tracks prevented them from approaching its shores. In short, industry had, up until that point determined the development of Chicago’s waterfronts. The Fair was the first major project in what would eventually be the almost wholesale transformation of Chicago’s waterfront, from one dedicated to industrial production and commercial transportation to one dedicated to the purposes of leisure.

At the Fair crowds of new Americans could first contemplate their future at the edge of a “great sheet of water” —a horizon that suggested an America beyond its bounding coastlines—a fresh start to ward off the symptoms of rapidly deteriorating American conditions, including economic ferment, the failures of reconstruction, xenophobic reactions to large waves of ‘foreign’ immigration, a loss of momentum following the close of the frontier, all of which were accompanied by wide spread and violent labor unrest.\textsuperscript{20} Despite this, the promise of America’s

\textsuperscript{19} On its busiest day the Fair welcomed 700,000 visitors on “Chicago Day,” when citizens of Chicago were granted free entrance.

\textsuperscript{20} The Fair opened its doors precisely at the precise moment that marked the end of the Gilded Age. The Panic of 1893 occurred in the same month of the Fair’s opening, an ensuing stock market crash was followed by a four year economic depression—the worst yet experienced by the nation.
ultimate triumph—a message delivered by the heavy handed symbolism of the Fair’s Grand Basin statuary, was very well received. There, an enormous 100’ tall figure of Columbia stood facing in the direction of her inland empire. She is confronted by another image of herself, poised at the other end of the pool, sitting in a ready position atop a charging barge directed beyond the basin and towards Lake Michigan—a surface that reflected both the rising and the setting suns. It was an image that helped to change the nation’s attitudes not only about the settlement and development of the West, but of shores far away, an adventure supported by techniques that would enable the nation to occupy any land, anywhere, no matter how difficult the conditions.

Figure 5.10-5.11 (left) 100’ tall statue of Columbia facing the Columbian Fountain. (right) The Columbian Fountain, the largest fountain in the world at the time was overburdened with symbolic imagery. The boat carries Columbia sitting aloft the Barge of State, heralded by Fame at the prow, oared by the Arts and Industries, guided by Time at the helm, and drawn by the sea-horses of Commerce. In the basin of the fountain, four pair of sea-horses, mounted by riders who represent modern intelligence, draw the barge. The Burnham Collection (the Columbian Exposition Photographs by C.D. Arnold, 1891-1894) Burnham and Ryerson Archives at the Arts Institute, Chicago.
Life Rafts: The Floating Raft Lands Half Way Across the Globe

Though it was Burnham’s White City that confidently announced America’s ambition to move beyond its bounding shores, it was Root’s floating raft that actually enabled the Untied States’ charge into the Pacific. Beyond holding buildings aloft in the mud, the raft foundation expressed a desire to be elsewhere. Indeed, it was scarcely more than a decade before the floating raft would land half way across the globe. That is to say, concrete foundations were not only a solution to a technical problem they were also translated into a technique for colonization—a material means for transforming much of the world into a universal condition. The raft itself was continuously refined by the tireless analysis of the soil, the testing of new concrete admixtures and the endless measuring of rates and levels of settlement. The soil conditions were tested in both the laboratory and the field, each new raft foundation provided data as a part of a massive ongoing experiment in the occupation of an increasingly diverse palette of environmental conditions. The first floating raft to arrive in Manila was used to buoy up the U.S. Army’s Insular Ice and Cold Storage plant, the first permanent building to be constructed in the Philippines by the U.S. government. Considered a luxury commodity during the Spanish colonial era, the production of ‘artificial’ ice was a relatively new technology, only displacing a lucrative global trade in natural ice in the late 1880s. The Insular Plant was one of the first large scale ice production plants in the tropics. Besides producing ice, it stored large cargoes of fresh beef and mutton. Its construction was prioritized over all other projects as it was seen as a means of

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21 Though ice was still not accessible to the average Filipino, the Spanish only had access to “natural ice”—most of which was harvested from Wenham Lake in Massachusetts. See Philip Chadwick Foster Smith, *Crystal Blocks of Yankee Coldness: The Development of the Massachusetts Ice Trade from Frederick Tudor to Wenham Lake*, 1806-1866.
protecting the American body from the enervating effects of the tropical climate and diet. While canned meat was widely available and used in military rationing, the import of fresh meat (an expensive commodity to ship on account of the need for continuous refrigeration—also a relatively new technology) was seen as essential to maintaining not only an American “way of life,” but American life, understood then as more than a series of customs, but as the maintenance of a biological state. In the nineteenth and early twentieth century the tropics themselves were believed to have enervating effects on the Anglo Saxon body so consequential that the ability of the colonizer’s race to acclimatize to tropical environments were thought to be a central factor in the global balance of power. Linking the emerging sciences of physiology and anthropology to the tasks of “concrete importance (to) the economist and statesman” William Z. Ripley, a professor of sociology and economics at Columbia University, and later, MIT wrote in 1896:

The modern problem plainly stated is this: First, can a single generation of European emigrants live? and, secondly, living, can they perpetuate their kind in the equatorial regions of the earth? … An area of fertile lands six times as great as that cultivated by the people of Europe to-day stands waiting to absorb its surplus population. But its point of saturation will obviously soon be reached if traders and superintendents of native labor are the only colonists who can live there. 22

The maintenance of this biological state would require the importation of enormous stores of American payloads—goods often assembled as titanic monuments to American stability’—spectacular proof of the new colonizer’s ability to resist political, meteorological and geological

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22 Ripley was replicating a theoretical debate traceable as far back as Aristotle’s description of an uninhabitable “torrid zone.” In the mid eighteenth century the discourse was revived and expanded around the question of colonization. Scholars in the emerging fields of medicine, pathology and anthropology either believed that colonizers could acclimatize to the conditions of their colonies (and thus successfully permanently settle in those colonies) or otherwise believed in a fixity that bound certain races to their climates of origin. William Z. Ripley, “Acclimatization” in Popular Science Monthly, March, 1896. Pg. 662.
uncertainties. By virtue of presenting inexhaustible American stores, these ‘load tests’ did not only assess the bearing capacity of the raft foundations, but also confidently announced the viability of an American way of life abroad by demonstrating the exportability of American surplus and security. One may recall, at this point, Shankland’s load tests at Jackson Park, tests that determined the viability of occupying Chicago’s swampy hinterlands. In the Philippines these load tests took on greater significance by signaling the arrival not only of a universalizing technology, but also the viability of the colonial project itself. The massive stores had to overwhelm any fears of potential failure, any knowledge of the history of tropical famine, any doubts of United States’ benevolent aims. The floating raft, together with ice, refrigeration and other technologies thus became a means through which Americans could protect themselves from the risks endemic to their anchorage.

Figure 5.12-5.13 Load Tests: (left) Food stores unloaded during the Spanish American War (right) A floor test. The caption reads: The rice is piled 30 sacks high, and an actual weight of 906 pounds per square foot has been developed on the floor without any indications of settlement or even perceptible deflection. “A Floor Test.” The Quarterly Bulletin of the Bureau of Public Works, October 1914, pg. 39
A New Ground

Just as it was in Chicago, in Manila, American engineers would be required to lift a city out of its native muck. The first undertaking was the establishment of Manila’s datum at the elevation equivalent to the mean of Manila’s lower low tides. Sand accumulated from the dredging of the harbor (which was being deepened to allow for the passage of larger ships) was used to fill in coastal lowlands so that city blocks sat above street level.

The first system to be placed below the datum was what was purported to be Asia’s first ‘comprehensive’ sewer system. Designed by O.L. Ingalls, then Manila’s city engineer. The 52 mile long system began construction in 1905. The length of the main sewer was built entirely out of reinforced concrete and was about 8 miles long and was built in an “egg shape.” Over 50,000 barrels of cement (all of it procured from the Green Island cement co. a British co. based in Hong Kong) were used to make 30,600 cubic meters of concrete and mortar for the additional 40 miles of brick vaults. Ingalls adopted the “pumping system,” in which high points were established at a minimum depth of five feet below the surface, the vault would then descend until the economy

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23 A datum, the singular form of data is a single reference point. In this case the datum was established in order to bring City of Manila in its entirety above sea level.
of construction required the sewage be pumped up into the pumping station, thus establishing a new high point. The system continued like this until the sewage was discharged into the sea. It was in this way that an invisible topography was established below Manila’s flat surface.

By 1909 the system linked San Miguel, one of Manila’s oldest and wealthiest neighborhoods to Tondo, a district of contrasting characteristics. On the one hand Tondo, as Manila’s main commercial district, hosted handsome bank facades and store fronts, on the other hand it was Manila’s most densely populated district. Sprawling behind a façade of shops lining Tondo’s main thoroughfares, lived crowds of shop employees, small vendors, odd jobbers, a rapidly growing number of factory workers and in its northernmost parts a sleepy though crowded fishing village. Early descriptions of Manila’s unbearably overcrowded conditions, usually referred to Tondo.

Figure 4.16-4.17 new pumping station on the Paseo de Azcarraga From the Quarterly Bulletin of the Bureau of Public Works
The sewer, however was not intended to service this packed-in population, but rather a new one. Sewer connections, to be paid for by the homeowners themselves cost hundreds of times the value of the nipa house, the typical dwelling of the average native Manileño living in Tondo, thus rendering the service out of reach for the vast majority of Tondo’s inhabitants. The maximum capacity of the sewer system was 350 connections per acre, while densities in Tondo most populated areas reached in excess of 500 persons per acre during the time of the sewer’s construction. This is all to say that clearing the way for Tondo’s (mostly industrial and commercial) redevelopment by expelling many if not most of its inhabitants was an unstated goal of the sewer project—a goal achieved by creating real estate conditions favorable for large-scale construction. Indeed, shortly after the completion of the sewer, areas just north of the Pasig bordering Tondo became the first site to receive tall buildings of American manufacture, though as would be the case in Chicago the concrete raft would eventually be wholly replaced by the more stable pile construction. In sum, while the sewer was outwardly intended to confirm the benevolence of American Empire, it was ultimately another means of excluding Manila’s poorest inhabitants. If in Spanish Manila, citizenship was circumscribed by an imposing and monumental wall, then in an American Manila it would be clandestinely defined by access to infrastructure.
While the sewer was well advertised to have a ‘democratizing’ capacity to serve 450,000 people it merely marked what would be the most intensive sites for American and foreign development. The conditions that nourished capitalism were often different from those that supported human life. Humans flocked to environments previously thought unlivable because there was money to be made there. Such was the case with swamp that would become Chicago, where the advantages to commerce were so great they eventually forced a reckoning with the poor conditions of the earth. A newly stabilized ground would not only support the human loads of industrial capitalism—the women, men, machinery, their things, their fuel, and their waste, but would also be a means of overcoming similar conditions elsewhere and everywhere across the globe.

What is Meant by Stability

Though this chapter is dedicated to understanding stability in the most straightforward sense of the word, that is, in terms of a physical stabilization of the ground, it is only to deepen our understanding of stability and the history of stabilization policy as currently understood. To a certain extent, stabilization has become synonymous with the end goals of American foreign intervention. The goal of stabilization, as understood today is to fill vacuums of law and order, to rebuild areas destroyed by war, plagued by ‘sectarian’ violence, and/or suffering the after effects of natural disaster. While today stability suggests a desire for a sort of interventional minimalism, at one time it suggested the most obtrusive and permanent future for American colonialism, the end goal of which, as Forbes saw it was to sow conditions that would not only foster capitalist development in the American colony, but would by law guarantee protection to foreign capitalists. In Forbes’ words:
Capital demands a stable Government. Capital is not particularly interested in the color or design of the flag. It wants just and equitable laws, sound and uniform policy on the part of the government, just and fair treatment in the courts… No capitalist need feel alarmed as to the security of his investment provided it has been made in such a way as to fulfill the conditions imposed by law. The United States stands pledged to the establishment and maintenance of a stable government in the Philippine Islands… My policy will be to hold out the hand of welcome to all people desiring to engage in legitimate enterprise.  

By alluding to the “design of the (Philippine) flag,” Forbes suggests that national sovereignty is only capable of achieving purely symbolic gains. In his view, the only thing that would improve the material condition of the Filipinos is capital, and specifically (an already abundantly available) foreign capital. All that was needed was to create both the physical conditions to ‘welcome’ it, and to guarantee the legal conditions in which it could grow. Creating the physical conditions would be addressed through constructive work—a dedication to Burnham’s plan, and a commitment to permanent forms of construction. Guaranteeing legal conditions, Forbes believed would not be possible, without a permanent and active maintenance of American colonial control. Stabilization policy, a neo-colonial form of control did not develop as (and was never intended to be) a set of finite actions inclusive of an ‘exit strategy.’ Such a definition would suggest that American foreign policy is only concerned with volatility, violence, and suffering as such, and this has never been the case. Rather, what is meant by “stabilization,” from its colonial inception is the creation of conditions hospitable to capitalist enterprise more generally and to finance capital in particular. This included, as a means of guaranteeing the permanence of stability itself, the physical stabilization of the ground.

As the following chapters will reveal, as direct colonial rule became an increasingly

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24 William Cameron Forbes, *Inauguration of Honorable William Cameron Forbes as Governor General of the Philippine Islands, Wednesday, November 24, 1909 (containing the inaugural address)*, Manila: Bureau of Printing, 1909. (pg. 12)
untenable to maintain, fertile and stable ground for American capital would be sought and
crafted through the transformation of material conditions themselves—through the construction
of infrastructural projects, by controlling the spread of disease, through the manufacture of
popular consent, through the invention of novel legal structures, through the creation of new
economic institutions, through the development of a strong military apparatus, and through the
training of a cooperative native elite friendly towards American economic goals. All of these
goals had a physical component, and when the Americans built something, they almost always
built it with concrete. Each of the projects addressed here were constructive, durable, stable and
in themselves aspired to effect concrete change. Thus, what is examined is not simply the
introduction of a new material to the colony, but is rather a new and materially based colonial
form.
Salubrity

In Mary Douglas’ influential study of concepts of pollution and taboo, Purify and Danger, the anthropologist compared various attitudes towards dirt in order to develop an argument about the construction of social and cultural systems. Dirt, she famously argued, is not an absolute thing. Rather, it “exists in the eye of the beholder… (and should be seen as) a positive effort to organize the environment.” Identifying what she called “matter out of place,” was central to creating a “unity of experience” and was a means through which a subject understands their culture as it is negatively defined by that which is excluded from it. This is especially true of the developing sciences of hygiene and sanitation, which as a set of practices began to take hold of the Western world towards the end of the nineteenth century. These “practical” sciences were zealously applied, undergirded by what was once a controversial germ theory first developed by John Snow, Louis Pasteur, and Robert Koch, in the mid-nineteenth century. Once the microbial culprits of communicable disease were seen with the aid of a microscope, the visible media in which they lived—mud, dirt, feces, small pieces of discarded food were in turn vilified. Modern architecture followed in turn, introducing into homes and sanatoria not only light and air, but impermeable surfaces, rounded corners (easily cleaned), and countless other spatial remedies. Concrete played a crucial role in both improving the visibility of this newly classified “dirt” (to use Douglas’ term) and in physically dividing dirt from the spaces of what were considered those as belonging to a ‘civilized’ (in this case American) society. As such, in the Philippines—where two concepts of dirt collide in the form of a colonial encounter, concrete was used liberally. This was especially the case at sites of potential transmission—where Filipinos and Americans were most likely to mix. This was seen, for example in the dozens of sanitary
markets built by the Americans both in Manila and across the archipelago. In one of the earliest and most widespread uses of concrete, bamboo tables and dirt floors were discarded and replaced by a raised concrete floor and by hard and impermeable concrete work surfaces. It was not only in places of mixing that concrete was used, however it could also be found in domestic spaces, and it is here that the use of the material varies widely, where supposedly universal principles of sanitation are divided into racially specific methods for the treatment of disease.

The Sanitary Barrio: ‘A Variance on the Universal’

It has become necessary to develop a form of sanitation in certain outlying sections of Manila which in some ways is at variance with sanitation as practiced in occidental and temperate zone cities.

It was in this way that George Guerdrum, the head of the sanitary division of the office of the City Engineer introduced a new and sweeping solution to what he and other colonial officials considered to be Manila’s increasingly unsanitary conditions. His description of the new system was published in *Engineering Record*, under the title “A Novel House and Street Sewer System for Portions of Manila.” This form of sanitation came to be known as the “sanitary barrio,” a solution that Guerdrum wrote would be “the foundation upon which all future work in the sanitation of Manila will be based.” In the article, Guerdrum went on to describe the difference between ‘Occidental’ standards and the new sanitation standards within the sanitary barrios, wherein

…drainage, instead of being collected in sinks and other plumbing fixtures and passed through the plumbing system to the street sewer as it is customary … is allowed (rather) to pass through the (bamboo) slat floor of the (nipa) house to the

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surface where it is caught in an open cement lined basin. This basin slopes towards a cement lined open canal which may be swept out and cleaned. The small canals from each house lead to larger street canals, also cement lined and open for inspection and cleaning purposes as well as for the purpose of the purifying action of the sun and daylight to take place. 3

The ‘Oriental’ system on which the sanitary barrio was based would be tolerated despite its “insanitary features” on account of exigencies introduced by a cholera outbreak in 1908, an event that motivated the Bureau of Health to act “radically… to change conditions then existing.” 4 While in American cities similar conditions prompted comprehensive sanitation plans, in Manila it resulted in the total “radical” division of the city and the quiet implementation of a comprehensive and ostensibly permanent double standard, a standard that Guerdrum confirmed when he concluded his article by commenting that, “The above described system is of course not applicable to the business and better residence sections of the city where the new sanitary sewer is in operation and municipal sanitation is much the same as in American cities.” This “variance,” to universal standards of sanitation, in other words, was not as Guerdrum suggests, put in place because of Manila’s location in a tropical zone or because it was an ‘Oriental’ city. ‘Occidental standards’ of sanitation, as the successful construction of Manila’s sewer system suggested, worked perfectly well in the ‘Orient.’ The differentiation of sanitation standards was rather, based on closely correlated categorizations of race and class. 5 That is to say, despite claims that it was a more enlightened and democratic ruler than its colonial predecessors, the American colonial regime’s policies of segregation were no less real than those of the Spanish. However, as a set of policies constructed through material differences, justified in

4 Dr. A.J. McLaughlin, FINISH footnote.
5 The first category maps almost perfectly onto the other. I will return to the exceptions later in this chapter.
scientific terms, made in the supposed interest of the general health of the city, and articulated in the banal technocratic language of building code, this segregation largely escaped historical notice.

Segregation by Material: Strong and Light Materials Districts

As the “foundation” of all sanitation in Manila the sanitary barrio required sweeping changes to all of Manila’s districts. This was handily accomplished by the passage of several pieces of legislation including Ordinance No. 158, of which section 122 specified the total division of the city into two distinct material conditions. Two types of districts were created, to be known as either “strong materials” or “light materials” districts. The ordinance stated that in strong materials districts the only form of acceptable construction was either masonry or reinforced concrete, and while the use of strong materials was encouraged and even mandated to a certain degree in “light materials districts,” it was within those districts and only within them that “bamboo and nipa construction would be permitted.” At the same time that those districts were defined, laws were passed to restrict both the construction, repair, and/or improvement of nipa structures existing within strong materials districts. The passage of this law very soon

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6 Specifies the building materials that may be used in strong and light material districts respectively. It also gives the boundaries of the fire wall district and cites the regulations and restrictions under which fire walls must be erected. Victor G. Heiser, Annual Report of the Bureau of Health for the Philippine Islands. 1907-1908. Manila: Bureau of Printing, 1908. Pg. 58.

7 The other pieces of legislation included Ordinance 153—Section 247 of which relates to the numbering of all buildings, specifying buildings to be numbered, plan and method of placing numbers, and prescribes the penalty for taking down, altering or defacing numbers. Ordinance 157, which appropriates sums of money for sanitary improvement fund; removing and rebuilding nipa houses; numbering houses; reconstruction of midden sheds; midden sheds on Mariquina reservation and in city of Manila; street work in sanitary barrios; Paco Market; extensions of water mains, sewers, and storm-water drains. Ordinance 164, of which Section 195 relates to method of installing soil and drainage pipes and specifies materials to be used and method of construction. Ordinance No. 172 of which section 124 specifies the kinds of light building materials that may be used in light material districts, and cites certain restrictions for the use of these materials. It also specifies height of light material fences.
resulted in the disheveled appearance of nipa structures throughout the “better areas” of the city, which was in fact the law’s desired effect. Especially decrepit examples were photographically documented by the Board of Health and published in its Annual Report, as evidence of the necessity of their removal. Strictly speaking, the images were not necessary, as the passage of the ordinance already empowered sanitary officials to remove existing nipa buildings in strong materials districts. Publishing the images, however allowed the removal of the buildings to stand for the record as prudent decisions made within the confines of a justifiable law.

In a similar manner, Victor G. Heiser recited the necessity of the already passed ordinance, writing in his 1908 report:

Nipa shacks in the strong-material districts must go, and repairs to old nipa shacks, which perpetuate this problem, must be prevented. These nipa districts exist by sufferance within the strong-material districts, dilapidated shacks crowded together in the most unsanitary manner… These districts are the natural homes of cholera and from there the people who are trying to live decently are infected…. It is most difficult to make the denizens of these filthy collections of shacks conform to the sanitary regulations, and their habitations and mode of life make this problem a serious one as their presence is a distinct menace to the health of their more fortunate neighbors.8

Here Heiser totally collapses the use of nipa and disease. Those living in nipa structures were the ‘natural’ vectors of disease, and posed a dangerous threat to their “more fortunate” neighbors living in masonry dwellings. What the captions to the images did not reveal is that most of the nipa shack structures most likely belonged to those who worked for the residents living within the strong materials districts, the “muchachos, cooks, or cocheros,” who the then Director of the Bureau of Health, Dr. Victor G. Heiser derogated, “spend their spare time in these plague spots.” While Heiser’s phrasing would suggest that these structures were nothing but spaces for idling, they were, in fact the family homes of the working class that served the “better districts.” This was a pattern of urban settlement that long predated American colonization and its attendant patterns of economic restructuring. Just as those who worked inside the confines of Intramuros were expelled every evening, to retire to areas just outside the walls, so were the servants of upper class residents in more affluent sections of Extramuros expected to live outside of the confines of the houses that they served, though not necessarily outside the boundaries of the property. In this way households could affordably house their servants, or even charge rent, while ensuring they were always close by, should they be needed.

Despite Heiser’s sense of urgency the forced evictions did not take place until proper sites were located for the sanitary barrios. He realized that it was “useless to insist upon destroying the houses of the inhabitants of insanitary districts unless a proper place is provided for them to settle.” Otherwise, he continued, revealing a concern for the appearance of fairness, “it will be a case of driving them from one insanitary site to another, and the charges of persecution will be difficult to refute.”9 When the first sites were secured, the removal of nipa

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structures from the strong materials districts was met with “strenuous opposition.” The illegalization of repair, however proved an effective strategy of phasing the buildings out, as the lack of maintenance made it relatively easy to secure evidence of the ‘unsanitary’ nature of nipa structures. As the Bureau of Health understood, the nipa shelter was not, as a strong materials structure was, a stable object, it was rather a set of practices of continuous building and maintenance. Implicitly acknowledging this fact, Heiser wrote, that if repairs of nipa structures were prohibited the “nipa-shack problem…would solve itself.” Heiser only needed a short time to pass, a time that was aided with the passing of a typhoon season. With that final hurdle cleared, and as the final preparations of the sanitary barrios was reaching completion, more than 700 of the “most unsanitary hovels” were removed from Manila’s hard materials districts.

San Lazaro

All of those evicted from the hard materials districts were relocated to the newly organized San Lazaro sanitary barrio where they would join those who were displaced as a result of the preparation of the sanitary barrio itself—over a thousand residents who, Heiser wrote, lived in “several collections of miserable shacks.” The barrio, which sat on an estate that were formerly friar lands (expropriated by the insular government), was built with an “experimental appropriation” of 5,000 Philippine pesos, with which the government hired locals to build drainage ditches leading to an adjacent estero.\textsuperscript{11}

\textsuperscript{10} Of course concrete buildings also required maintenance, but in general concrete buildings, once constructed were in a sense banked or petrified labor, liberating that labor such that it could be directed elsewhere.

\textsuperscript{11} The total expenditure for the San Lazaro Estate was 34,117 Philippine pesos, remarkable considering that the sewer was built at a cost of 4,000,000 pesos.
As would be the case with all sanitary barrios, the estate was then divided by a system of streets and alleyways into “sanitary blocks.” Each block was furnished with public closets, public baths, laundry and public hydrants. Each block was divided into lots, each of which were crowned with lightly compacted earth, and assigned a unique address. The lot lines were paved over with concrete surface drains which led to larger surface drains that ran down the center of each alley and street. At San Lazaro these larger drains led to a large open sewer that eventually emptied into a “bacteriolytic tank,” which treated the sewage before its final exit into San Lazaro’s adjoining estero. In other sanitary barrios, which did not share the advantage of having a location next to an estero, untreated sewage was left to be collected in open sewers in order to be exposed to both the “purifying effects of the sun”— and the examining eye of sanitary inspectors, who routinely gathered samples from these heaps to check for or to verify the presence of cholera within each barrio.¹²

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¹² The esteros are actually the 47 natural tributaries of the Pasig River, which were all canalized during Spanish colonial times.
The San Lazaro Estate alone would contain forty-five blocks consisting of a total of 1,648 lots, with provisions for a population of 13,184 people. An adjacent piece of land, which would be administered by the church was prepared in much the same way and would contain close to 10,000 more people. In the end, the “experimental” San Lazaro estate provided a ‘sanitary solution’ for a population about a third of the size of the planned total capacity of the “comprehensive” municipal sewer system, and though it would remain the largest of all the sanitary barrios, it contained only a fraction of the total inhabitants of the sanitary barrios that would be built throughout the city. It was in this way, the report concluded, that the “congested surplus population… can be gradually cared for… and conditions in general improved.” The cost per person is astonishing considering that the municipal sewer system was built for 4 million pesos, a cost of over 600 pesos per connection (at its maximum capacity of about 6000 connections), versus a cost of less than five pesos per lot on the San Lazaro Estate. The cost

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13 Total cost of the estate was only 7806 pesos it included forty-five blocks consisting of a total 1,648 lots, with provisions for a population of 13,184 persons.
effectiveness of the sanitary barrio was enhanced by the fact that it would also be a source of revenue for the insular government, which after offering the future residents free rent for six months (a means of ‘enticing’ new residents to live there), the insular government would charge residents a “nominal ground fee.” Thus, the sanitary barrio was not only viewed as an efficient means of stamping out disease, it was also a potentially profitable means of dealing with the problem of Manila’s “surplus populations,” who were, through the payment of rent rendered more useful to the insular government. The construction costs of the nipa houses, which most of the residents built themselves, were limited to the negligible cost of sourcing readily available and renewable resources of bamboo and nipa, and therefore rarely exceeded 50 Philippine pesos—a cost to be absorbed by the residents themselves. The only investment made on the part of the city was the low cost of the labor used in the ground preparation in addition to the cost of the Portland cement. The sanitary barrio and the nipa houses were thus similar to what is today known as “self-help” housing schemes, which combined the advantages of ‘formal’ methods of planning with the cost efficiency of informal modes of construction.

Following upon the successful completion of the San Lazaro Estate, the insular government set to expand the sanitary barrio strategy. Without exception all strong materials districts were more affluent neighborhoods, while all light materials districts housed the city’s poor. Not all “light materials” districts, were (yet) sanitary barrios—any area that housed mostly

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15 It is important to note here that before the insular government converted the San Lazaro Estate into a Sanitary Barrio the site generated no income, as the residents were “squatting” on the Estate.
16 A surplus population is identical to what Marx (after Engels) called a “reserve army of labor,” which refers to the unemployed or underemployed members of a capitalist society. This reserve army of labor ensure that the cost of labor in the city would remain low.
17 Self-help housing schemes became popular in the 1950s in places like Peru The essential premise was to bring together the benefits of “formal” design expertise with “informal” building. For an in depth analysis of the Peruvian example see Helen Gyger, *The Informal as a Project. Self-Help Housing in Peru, 1954-1986.* Dissertation, Columbia University, 2013.
poor people and where the preponderant building material was already nipa was considered a light materials district. However, as these areas were not yet laid out according to the standards of the “sanitary barrio,” they were simply referred to as “insanitary barrios,” the defining characteristic of which, the Bureau wrote, was the crowding of several structures on a single lot. At the time “insanitary barrios” included the large districts of Tondo, Santa Clara, Ermita and Malate.\textsuperscript{18} It was suggested in the Bureau of Health’s \textit{Annual Report} that all of the residents of these areas would eventually be relocated to sanitary barrios once sites with appropriate capacities were identified.\textsuperscript{19} This general approach to the city—a stark segregation or ghettoization of Manila’s poor populations, reveals that the asymmetrical treatment of the city and its citizens, an asymmetry that resulted in the sort of unevenness that has become characteristic of the ‘developing’ world, was in fact planned from the very start. This asymmetrical planning however, framed as a radical response to a crisis of epidemic disease, would not have to present itself, as Burnham’s plan did, as ideological. It was a strategy that would remain free of such judgments, presented as being based upon largely unassailable scientific principles of hygiene and sanitation.\textsuperscript{20}

\textsuperscript{18} Of these “light” sites Tondo was considered especially problematic, which the Bureau of Health argued was “…a menace to the entire city of Manila, and that until this work is done, even the sanitary barrios will be useless.”

\textsuperscript{19} There was another distinct and perhaps unforeseen advantage to the “lightness” of these sites and of the infrastructure of the sanitary barrio itself. As a population already marked as unsanitary, their occupation of the land was considered a highly contingent privilege. Unsurprisingly as the city of Manila developed, light materials districts, many of which were located near the center of the city, became prime sites for real estate speculation, even more desirable because of the fact that the entire population of the often very large sites could be cleared with relative impunity.

\textsuperscript{20} That is not to say that there were no objections to the sanitary barrio and other extreme measures taken by the Bureau of Health. Sanitary inspectors were often charged with arbitrary cruelty. As Dr. T.H. Pardo de Tavera, one of the two Filipinos on the Philippine Commission wrote to Governor Taft, “the people fear the Board of Health a great deal more than they fear the epidemic. The sanitary inspectors, white, brown, black, and civil and military have committed and still commit all kinds of abuses.” From the provinces he had heard complaints “against the barbarities committed by health agents.” At Pasig, for example, the provincial treasurer “set fire to a house where a victim of the cholera (epidemic) had
Concrete Parterre and Cordon Sanitaire: New Uses for Burnham’s Plan

While the Sanitary Barrio was a form of planning did not have to present itself as an ideology—as Burnham’s plan did, as it turned out, the Sanitary Barrio strategy was well served by Burnham’s Plan. Like most of Burnham’s urban plans, the Manila Plan was patterned after died and the flames extended to two neighboring houses,” while the provincial inspector went about with “a gun on his shoulder in order to intimidate the people to make them obey sanitary laws.” Pardo de Tavera, as a physician, appreciated the need for such laws and supported their enforcement, but he could not condone the accompanying brutality. Pablo de Tavera quoted in Warwick Anderson, Colonial Pathologies: American Tropical Medicine, Race, and Hygiene in the Philippines. Durham: Duke University Press, 2006. Location 1285 (Kindle edition).
L’Enfant’s plans for Washington D.C., characterized by a radial network of axes cutting through a parterre organized by a rectilinear grid. Without intending to do so Burnham had specified a near perfect sanitation apparatus. The radial network divided the existing city into well defined districts, which in Manila would serve as hygienic readymades, functioning both as germ breaks and as an easily navigated network from which Sanitary Inspectors could police both the hard materials districts (where landlords were sometimes found to harbor light materials structures) and the Sanitary Barrios themselves. The areas trapped between the radial system of axes in effect created a patchwork of permanent cordons sanitaires. Where concrete roads were not possible, compacted earth was spread with lime to keep the road’s surface both firm and clean. These germ breaks would not be the only means of segregation, as much as possible the City Engineer sought out sanitary barrio sites far away from upper class neighborhoods. On account of the scale of the problem (they were in fact dealing with the majority of Manila’s population), sites did sometimes exist adjacent to developing hard materials districts, as was the case with the location of the Vito Cruz barrio, where “…a number of objections (had) been raised” to its establishment “…as it is on the path of construction of strong material houses and is within that part of Manila which is at present enjoying the greatest amount of construction of the higher class of residences.” However, despite the fact that the committee (on the sanitation of Manila’s low districts) thought it “…seemed undesirable to insert a nipa barrio in the middle of a highly developed residential district…and) that the land in that district is too expensive for a sanitary barrio,” it could not lawfully object to the owners who wished “to rent (their property) for that purpose.” The fact that Manila’s poor would live in relative proximity to its upper class residents made it especially important that the radial axes were wide, clean, well defined and heavily policed.
The intersection of the axes and grids was particularly effective from an optic standpoint. From the boulevards sanitary inspectors could visually penetrate the neatly gridded barrios, while the containment of the grid limited the perspectival field of vision. It is in this way that the entire city was transformed into a sort of distributed panoptic scheme. The difference between the classic panoptic scheme and the sanitary barrio, was that there were several different scales of organization and techniques of observation operating simultaneously. If in the panopticon the asymmetrical gaze depended on a technology of projection, then in the sanitary barrio it was fortified by technologies of microscopy, which had its particular effects on the constitution of the subject. The microscope did not act alone, it was only the final step in zeroing in on the location of disease. The isolation of disease, began with the city at large, where sanitary inspectors mounted on motor bikes could patrol entire districts. The grids organizing the sanitary barrios themselves facilitated inspection within them, and finally the small concrete surface drain that cleaved each alley and street within the sanitary barrio acted as basins where fecal matter would be isolated and collected.\textsuperscript{21} Because the drains were open, when discovered under the powerful

\textsuperscript{21} At this final scale the materiality of the sanitary barrio proved to play a much more important role in the discipline of its subject.
gaze of the microscope cholera could, at least in theory be traced all the way back to a single residence. Disease, then was not localized to a body exhibiting systems, but to particular places within the sanitary barrio itself. Each neatly demarcated plot of land was viewable as an extension of the native body. Houses deemed improperly maintained were treated as suspect—susceptible, if not already symptomatic of disease. Cholera, in the sanitary barrio then, was not a disease of the body, rather it infected the externalized concrete bowels of this artificially gathered community. The sanitary barrio could thus be treated like an infected body would be. If cholera was ever detected, pressure hoses had a wide and clear berth into which disinfectants could be sprayed with a power hose, like a powerful colonic cleanse spraying the collective bowels of the barrio free from disease.\footnote{If cholera was ever detected, sanitary barrios facilitated the mobilization and implementation of an aggressive and systematic cholera eradication strategy. This was the case in September of 1908, following a small rise in cholera cases in the hospitals that the Bureau of Health resolved pointed towards the “probability of an epidemic” (which, they argued they could not easily confirm on account of the fact that Filipinos tended to not report cholera cases because of fear of property loss associated with aggressive disinfection squads). After it was resolved to embark upon an aggressive campaign a disinfection squad of 600 men assembled consisting of lime squads, fire engines (with pressurized hoses filled with disinfectants), and street spraying wagons (also armed with disinfectants). For this particular campaign “daily output of disinfectants was enormous, about 75 tons of lime, and about 700 gallons of carbolic acid or its equivalent.” When they ran out of chemicals they resorted to an experimental use of electrolyzed salt water then being tested in the Bureau of Science’s laboratories. When lime squads ran out of lime, the frenzied action did not stop, as they were asked to take up shovels, hoes, rakes, and brooms to dig ditches to cover errant excreta.}
At the heart of the Sanitary Barrio lay a contradiction—if the nipa house itself was deemed as an unsanitary entity when existing within strong materials districts, how was it also proposed as a sanitary alternative to itself? Guerdrum answered the question simply, arguing that with “a mild form of building supervision this style of construction has been rendered quite sanitary.” On this point, however, there was some disagreement amongst different sanitary officials. While Guerdrum framed the building type as only tolerable when under the watchful eye of the American sanitarian, other sanitation officials like Heiser described the type as “very desirable,” on account of the fact that it allowed for excellent ventilation and the penetration of sunlight. Heiser’s successor Carroll A. Fox went even further, arguing that “if nipa houses are properly constructed they are the most sanitary houses that can be built,” even more sanitary, he implied, than buildings built out of strong materials. Fox added to his argument that if it was not for nipa structures, the “detrimental effects (of overcrowding)… would be more apparent.”

The characterization of mere tolerability of the nipa house vs. the nipa house representing the highest standards of health mainly hinged upon what disease the sanitarian was attempting to address. Whereas strong materials provided impermeable and easily cleaned surfaces, thus preventing the spread of diseases like cholera (which spread through feces mixed with other

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23 The local wisdom of nipa construction became so valued in fact, that a year after the construction of the San Lazaro Estate, the Bureau of Health built a “miniature model nipa house,” the main attraction for the Bureau’s exhibit for the Manila Carnival. The model contained “sleeping porches, perfectly ventilated room, a cement drain for (the) yard, a sanitary kitchen,” and unspecified “sanitary appointments.” It was thusly how the American insular regime valorized native construction practices, but only when tightly regulated by sanitation officials. Carroll Fox (Acting Director of Health), Annual Report of the Bureau of Health for the Philippine Islands. Pg. 38 Carroll Fox (Acting Director of Health), Annual Report of the Bureau of Health for the Philippine Islands. Pg. 20-21
loamy media) they were not particularly suited to preventing the spread of what were thought to be airborne diseases like tuberculosis, on account of the fact that masonry buildings were more difficult to ventilate than nipa structures. The “Spanish house,” built of strong materials was therefore, according to Heiser an “insanitary and uninviting” type that supplied more than their fair share of the cases of pulmonary tuberculosis.” The American regime, after all was there not only to lift the natives above their primitive condition, but to save them from the backward technologies of the previous colonizing power. The nipa house was thus not the only building type subjected to a new slew of regulations. The new strong materials code introduced new requirements such as large breezeways and minimum window to floor area ratios.24 This focus on the development of the strong materials building code largely mirrored an approach to urban housing issues then being developed in America’s urban centers.25 That is to say, for a still small proportion of the Filipino population, the Bureau of Health and other insular bureaus had to be able to justify the nipa structure as a viable and ostensibly permanent urban form—not simply as an emergency measure.

Typical nipa construction, however was never actually considered a tenable option for American dwellings in the tropics, mostly on account of the fact that it required constant and continuous repairs—their labor, in other words was otherwise disposed. Thus, the Bureau of

24 As patterns of building are difficult to dislodge, the construction of this type persisted, though it too, like the nipa structure became subject to a slew of new regulations, mostly governing proper ventilation. The new strong materials code specified that building structures must have no less than 500 cubic feet of air space, per each residing adult. There was also a mandatory 10 square feet of window area for every floor, with one window required to “open directly onto external air,” which would have a size of “at least one-tenth of the floor area” from the Annual Report of the Bureau of Health, 1908, pg. 18

25 Early American public housing initiatives focused on tenement reform, which was primarily a philanthropic venture, with Model Tenements built as early as the 1870s. These model tenements attempted to use new architectural and management models to address the physical and social problems of American slums. This philanthropic venture was limited by scarce resources and was soon redirected towards building code reform which included the new York Tenement Act of 1895 and the Tenement Law of 1901, laws soon copied in Chicago, Philadelphia and other American cities.
Health proposed the introduction of an entirely new “modern” or “American” type, (the terms were used almost interchangeably), a structure that Heiser wrote would be constructed of strong or mixed materials, and would be surrounded by porches, to maintain an overall feeling of lightness and airiness. Despite being described as American, the type owes a great deal to the Anglo-Indian bungalow type, long popular in India and increasing in popularity in both England and the United States. The American bungalow combined all of the ventilating benefits of nipa construction with all of the other sanitary benefits of strong materials construction.

Just as the American type began to take hold of Manila’s mostly American suburbs, another type, often colloquially referred to as the “mestizo house” also began to take hold. Though there were several builders and architects who “introduced” the mestizo type to the Philippine market, also referred to as a “tsalet” type (from the word chalet), Guerdrum, was the most systematic in introducing the concept to a broad audience by providing a series of house designs “(w)ith a view to improving future construction and educating local architects and house owners of the Philippine Islands in the principles of modern house sanitation.” These drawings,

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26 Heiser’s successor Carroll Fox specified that The old (Spanish) house of solid masonry retains its dampness. The nipa (by contrast) house soon becomes dry. The well ventilated nipa houses are less liable to harbor germs of disease since they are exposed to the dessicating air currents and to the germ-killing power of sunlight. Carroll Fox (Acting Director of Health), Annual Report of the Bureau of Health for the Philippine Islands. Pg. 20-21

27 As Anthony King argues in his book Bungalow: The Production of a Global Culture, the bungalow style, if not the techniques of passive ventilation spread quickly throughout the globe, initially as a vacation type, and then as an affordable single family detached type. See Anthony King, Bungalow: The Production of a Global Culture, London: Routledge and Kegan Paul, 1984.

28 This term has been in use since the Spanish colonial era. When the Spanish first arrived, they built multilevel homes and government buildings out of stone until the frequent earthquakes taught them the value of lowland Filipino architecture. The resulting buildings soon developed into a style called mestizo architecture. These structures (called) the bahay na bato (stone houses), were only built two floors high and utilized structural wooden posts and beam construction, using (non load-bearing) stone to enclose the ground level. This allowed for the use of space underneath the living area, while the second floor living area used wood for its walls… The airiness of the Filipino home was retained by incorporating as many windows as possible and by the addition of a back porch area, both of which were on the second floor.
first published in the form of a pamphlet published by the Bureau of Public Health in 1908, were “distributed gratuitously to any interested persons.”29 The houses ranged in size from the stand-alone single family home to multifamily units. Each was assigned a different price point, the single-family type ranging from the ₱600 - ₱1200. The simplest form of this type, built partly in concrete and partly in native lumber could, like the nipa structure be erected with a minimum of new expertise, requiring little more than concrete block, mortar, and the labor of its inhabitants, while more complex types revealed new opportunities for “private capital.” Several subtle revisions to native construction were the hallmarks of the mestizo type. For example, though the mestizo house would, like conventional nipa structures be elevated from the ground, the elevation was strictly limited to no more than 1.5 meters in order to discourage the common practice of placing livestock underneath the house. The type reached the pinnacle of refinement in 1917, when it was presented in built form as the “Sanitary Model House,” which incorporated a simple pit toilet, with a ventilating pipe and fire resistant shingles made up of equal volumes of cement, sand, and rice husk.

These plans were not intended to be executed exactly as drawn, but were rather offered as prototypes for housing developed under ‘free market’ conditions. This method of construction, the apparently perfect hybrid between salubrity and cost-efficiency, native and foreign, modern and ‘traditional’ was widely adopted in the capital, and played an important role in shaping the domestic aspirations of the Filipino middle class beginning in the 1910s and continuing even after the Pacific War.30

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29 Another set of refined plans was published in 1912 and disseminated to the public via what was by then a regularly distributed Health Bulletin.
This was not a provisional type, i.e. a type that might be construed as a stage in a developmental process, but rather was an ideal type, that is to say a type that is the materialization of development as an end; a type symptomatic of a permanent deferral of material equality with the metropole—the structurally unachievable goal that lay at the non-existent end of the rainbow of concrete ‘progress.’ It is not by coincidence that the “mestizo house” was a racially defined type, as concrete was used as a means of physically transforming the native body through a beneficial colonial intercourse—the result of which is an invigorated though still inferior other. Though both of these types exhibited the influence exerted by the “other,” the nature of that influence was qualitatively different. In American houses indigenous technologies were used towards a specific advantage, namely by Americans climatic comfort in the tropics. Mestizo houses, on the other hand, much like the sanitary barrio, introduced a double standard. Thus though hygiene presents itself as a universally applicable logic, one that the Scottish Medical Officer and tropical
medicine specialist Andrew Balfour described as a positively uniting “World Force” and a life-saving “power for peace,” scientific knowledge is not (or never) uniformly applied. What the cases of both the mestizo house and sanitary barrio plainly reveal is how universal logics have laid the foundation for the lasting and structural asymmetries of colonial development.\footnote{In a speech entitled “Hygiene as a World Force” delivered at the opening of the new school of hygiene at John Hopkins University in 1926, Andrew Balfour wrote the following: “In the hands of man religion playing the part of a world force has unhappily often produced turmoil and bloodshed. On the other hand, hygiene as a world force is a power for peace. Health and its promotion are subjects which sensible men... can discuss without acerbity and bitterness. I venture to think that the Health Section of the League of Nations is likely to oprove the most constructive and most successful part of the great Geneva organization designed to precipitate the millennium. In public health work and propaganda jealousy takes the form of a healthy rivalry.” Andrew Balfour “Hygiene as a World Force” in The British Medical Journal, Vol. 2 No. 3434 (October 20, 1926), pp. 782-784.}

Figure 6.14-6.16 (left) “The Filipino House in Manila” (Center) “Spanish House in Manila” and (right) “American House in Manila” Notably, the American/Modern house owes much to the Anglo-Indian bungalow, and to the airiness of the nipa house itself.
Concrete has no scale. It can be cast into small units, or into colossal monoliths. It was a material that enabled Americans to engage their land and their colony on the scale of the landscape—to operate upon it not only as a place but as an environmental whole. The broad and plain face of the Hoover dam—a clean and modern cut across the rugged red rock of the Sierra Nevadas announced America’s triumph over the unpredictable and malevolent forces of nature. It was an intervention that confirmed the inseparability of the natural and the technological in the evolving history of an American sublime. The concrete sublime as such would be comparatively diminuitive in the Philippines. To a certain degree it was just not possible—the Philippine landscape—its rivers, its mountains, its waterfalls, were diminuitive when compared to those of the United States. To a certain extent it would not be the concrete buildings or the concrete infrastructure itself that would deliver the American sublime to its colony, but rather the machines that would handle it—the concrete guns, mixers, pile drivers, and cranes employed to handle a new scale of construction. The sublime would be experienced through the visibility and suddenness of change delivered by these gargantuan instruments. Unlike architectural beauty the architectural sublime did not rely on understanding an imported and alien symbology. It operated, rather on an emotional register beyond language, and as such, it effectively united a multilingual archipelago, not through bonds of loyalty or allegiance—the sublime was never able to achieve such exact ends. Rather it was a bond forged by the jarring and sudden appearance of a re-formed environment.

**Scalability**

Concrete has no scale. It can be cast into small units, or into colossal monoliths. It was a material that enabled Americans to engage their land and their colony on the scale of the landscape—to operate upon it not only as a place but as an environmental whole. The broad and plain face of the Hoover dam—a clean and modern cut across the rugged red rock of the Sierra Nevadas announced America’s triumph over the unpredictable and malevolent forces of nature. It was an intervention that confirmed the inseparability of the natural and the technological in the evolving history of an American sublime. The concrete sublime as such would be comparatively diminuitive in the Philippines. To a certain degree it was just not possible—the Philippine landscape—its rivers, its mountains, its waterfalls, were diminuitive when compared to those of the United States. To a certain extent it would not be the concrete buildings or the concrete infrastructure itself that would deliver the American sublime to its colony, but rather the machines that would handle it—the concrete guns, mixers, pile drivers, and cranes employed to handle a new scale of construction. The sublime would be experienced through the visibility and suddenness of change delivered by these gargantuan instruments. Unlike architectural beauty the architectural sublime did not rely on understanding an imported and alien symbology. It operated, rather on an emotional register beyond language, and as such, it effectively united a multilingual archipelago, not through bonds of loyalty or allegiance—the sublime was never able to achieve such exact ends. Rather it was a bond forged by the jarring and sudden appearance of a re-formed environment.
“Mammoth” and the Exportation of the American Technological Sublime

Figure 7.1 Pile driver "Mammoth," note the large crew standing on the pile driver (1921)

(The) steel pile-driver *Mammoth*... is the largest and most modern pile-driver ever constructed anywhere either locally or the United States... This machine is now driving the 24-inch by 24-inch by 110-foot substructure of reinforced concrete piles for Pier No. 7. Its possession places the government in an independent position as regards its ability to construct marine terminal structures of the most modern type. Henceforth it will be available, for the construction of piers, wharves and seawalls throughout the archipelago—enabling designs to be executed which were heretofore impossible due to the lack of suitable equipment... Very satisfactory progress has been made in the construction of Pier No. 7. This fact can be better appreciated when it is understood that this pier ranks well with the largest constructed anywhere... (and) is being constructed so remote [sic] from the United States from whence the principal materials and practically all the machinery necessary for carrying on the work must be derived. ¹

¹ “Port Works in the Philippines: A Mammoth Pile Driver” in *Far Eastern Review*, September 1921 pgs. 587-590
Commissioned in May of 1921, and billed as the world’s largest steel piledriver, Mammoth was a giant and sublime American thing, and dwarfed, in both size and power, the mostly native force that manned it. Its arrival to Manila delivered the tremendous transformations that had already been taking place in the United States directly to the archipelago. The arrival of “Mammoth” did not square with the often invoked image of the American pioneer as one armed with nothing but their muscle powered axes, shovels, plows, and hammers. When the Americans arrived they were already armed with the twentieth century industrialist’s arsenal of fuel hungry, automated machines — concrete guns, tractors, cranes of all sizes, rock crushers, steam rollers, coal powered dredgers, automatic mixers, building systems, and giant piledrivers, all of which were, like Mammoth, poised to transform the American colony into a modern and productive economy.

It was Manila’s lack of sufficient modern wharfage that William Cameron Forbes considered to be one of the main obstacles to the Philippines’ economic progress, which Forbes characterized as “the worst major port for freight in the Orient.” As the Spanish era drew to a close Manila was already an ‘insufficient’ harbor. Once manageable cargoes of spices, porcelain, ivory, lacquerware, and processed silk that for centuries were unloaded, as they had been for centuries by means of an expensive system of lightering, in which the larger ships would dock off shore while smaller tenders would convey loads into the mouth of the Pasig River. This inefficiency was exacerbated by the fact an insufficient breakwater meant that rough seas often kept the harbor closed for weeks at a time. To add insult to injury, Forbes lamented, there were “numerous (Catholic) feast days upon which no stevedore could be found willing to work.” This inefficiency was one recognized by the Spanish colonial government, who by the late nineteenth century had drawn up their own plans to improve the harbor. The project began construction in
1880, but after many delays, construction finally ceased upon the arrival of American forces in 1898. In 1902, American introduced a stop gap measure that allowed some larger vessels to directly access the Pasig River’s quays. Dredgers worked near constantly to keep the mouth of the river and a deep channel leading up to it clear for incoming lighters and medium sized vessels. Removing hundreds of thousands of cubic yards of silt per year, the recovered earth was used in ongoing land reclamation projects that filled in Manila’s lowlands. This constant dredging helped to relieve the harbor of its seasonal changes and its generally unpredictable conditions. Though it improved shipping conditions by maintaining an 18 foot deep channel leading to the mouth of the Pasig, it did not completely eliminate Manila’s expensive lightering system. It did however relieve sanitary issues by filling in Manila’s low lying areas by subduing conditions hospitable to mosquitoes (recently discovered as the vector for both Yellow Fever and Malaria) and coliform bacteria. It was in instances like this that American Insular leaders took advantage of treating all of Manila as a single project, where surpluses in one area could be quickly utilized in another. Despite the success of the dredging, it was a large and ongoing expense that would eventually lead to an unmanageable surplus of fill. Furthermore, the maintenance of the channel was not enough to make Manila the world class port Forbes had envisioned.

To achieve what he viewed as a permanent and impactful change, in 1909 engineers working under Forbes proposed to reclaim a large parcel of land in front of Intramuros—an entirely new commercial district on what had been, before the arrival of the Americans, shoals in front of Manila’s shoreline. This area would be formed from fill retrieved by dredging the entirety of the harbor behind two new breakwaters to a depth of 40’. The project would transform Manila Bay from an open and turbulent roadstead into a closed and pacified harbor.
Steel piers were driven into the ground to prop up the first three modern piers, to be built off of the newly reclaimed foreshore area. These piers were equipped with “modern labor-saving devices” that, in accord with the other harbor improvements cut unloading times that could take up to two weeks into a task that would take only two days. This increased efficiency, Forbes argued was tantamount to the lifting of a costly and significant tax on all goods both going to and leaving from the islands.²

Immediately, Forbes argued this improvement transformed Manila from one of the most expensive and inconvenient ports in Asia to the most modern and cost efficient. Besides these

² Forbes used these savings to argue for the lifting of tonnage dues, a customary tax imposed by the Philippine Commission. The yield from these dues, Forbes argued was small, and in the interest of making Manila more attractive to shipping, should “hold out a welcoming hand.” As such in August 1906, the Commission abolished all tonnage dues. This, Forbes wrote “was extremely favorably received in shipping circles, ad the customs agents of the Islands reported that they heard it most favorably commented upon in European ports as well as by the merchants in the Islands.” To Forbes’ dismay this tax was reimposed “in a period of comparative financial stringency in 1916.” See William Cameron Forbes Philippine Islands. Pg. 124.
improvements to the flow of commercial traffic, the transformational project had a direct and permanent effect on the lives of few thousand Manileño families, who lived and labored aboard cascoes—flat bottomed, shore hugging houseboats. This culture was one that developed around the material and economic conditions of the Pasig River delta, the biannual arrival of galleons and the far more frequent visitation by Chinese junks mostly from Hong Kong and the Fujian province. Families living in cascoes mostly earned their living by the aforementioned system of lightering. In order to avoid running aground, both galleon ships and Chinese junks would anchor some distance from Manila’s shore (the distance varied seasonally), cascoes would park alongside the ships and tender goods and passengers to quays along the river. Long bamboo poles pushed into the soft silt of Manila Harbor were used to propel the cascoes not only through the shallows of the bay, but upstream beyond the Pasig delta and into Manila’s extensive system of canals, where they would deliver various goods deep into the city’s interior. The land reclamation project would forever change the medium that gave birth to this way of life, transforming a shape shifting coastline of mangroves and silt deposits into a well defined and enduring edge—a place, as Forbes would put it, for “…land (to) meet deep water conveniently.”

Figure 7.4-7.6 (left) Cascos in Manila Harbor with Galleon ships in the background circa 1890 (center), cascos in Manila Harbor with ice plant smoke stack in the background, ca 1910, cascos in esteros circa 1910.
The harbor improvement projects were funded mainly with Filipino tax dollars, though they quickly paid for themselves. The money earned from the taxes levied on ships using the new piers cycled back into the insular treasury. The profitability of the harbor improvements led Forbes to immediately formulate plans for its expansion, which he proposed right around the time Woodrow Wilson defeated Taft in his 1912 bid for reelection. The regime change, which as aforementioned included the appointment of Francis Burton Harrison (who would ultimately be the longest serving American governor general, and who would retire as a Philippine citizen), resulted in several significant alterations to the composition and nature of colonial rule. This included, per Wilson’s campaign promises, the first formal declaration of the Untied States’ intention to grant the Filipinos its political independence.

One area of colonial rule that changed relatively little during Harrison’s tenure, was in the construction of public works projects. In fact, this is one of the few areas in which Forbes expressed a restrained approval with the progress of the Harrison administration, which had “realized the value and necessity of public works.” Despite this, Forbes expressed in the Wood-Forbes Report, his displeasure with the increased cost of public works, which he attributed to the fact that many of the projects were executed not by private contract, but by the administration itself. Thus, though many of the institutional structures funding public works would change, an American investment in public works never desisted. One area of public works in which the Harrison administration lagged, however was what Forbes considered central to Philippine progress—the improvement of Manila’s Harbor. Thus, even before Warren G. Harding’s inauguration in March of 1921, forces had been organized for the construction of Pier No. 7., which began with the flotation of a congressionally approved P10,000,000 bond.
Enter, “Mammoth,” which would be assembled in the harbor while a makeshift outdoor plant was set up, just inland from the shore to cast hundreds of 24” x 24” x 110’ concrete piles. To transport the piles to the site of the pier, the United States assembled a giant pile crane, which would lift the piles into open rail cars, which carried the piers to the construction site, where a pair of large cranes attached to Mammoth guided and loaded the piles under its steam powered hammer, which then drove the piles more than 100 feet down into Manila Bay’s unstable sea floor. In short what was set up was a giant open factory for the production of new land. When completed, Pier No. 7 would have three times the combined capacities of Manila’s existing piers, it would be “capable of berthing the world’s four largest vessels simultaneously” and would be the longest covered pier in the world. Alone it would make Manila the largest and most modern marine terminal in the Orient, and would make the Philippines as Forbes long intended it to be, the cornerstone of American commerce in Asia.

Figure 7.7-7.8 General view of pile casting plant for Pier No. 7, Manila. From the Quarterly Bulletin and Mammoth in operation (1922)

Whereas the already vanished system of cascoes was an ‘organic’ negotiation between Manila Harbor’s deltaic ecosystem and the larger trading vessels that occasioned Manila’s Bay, Pier 7 was intended to bring spectacular and immediate change to the archipelago. The Filipino worker
was folded into this image—as the tiny figures balancing upon piles raised high into the air and as the human gears that powered its interior—they were conceived of as a part of a sublime industrial machine. As stated in the *Far Eastern Review*:

> The splendid progress made has been possible only because of the untiring efforts of the entire engineering personnel connected with the project, who, as a whole, have given … of their time and strength and co-operated so closely. This close cooperation of the technical personnel connected with this project has enable the bureau of public works to marshall its forces of skilled mechanics, artisans, carpenters, and workers as a whole and to create a smooth working organization of more than a thousand individuals to push the project to conclusion as rapidly as possible.³

![Figure 7.9-7.10 Pile crane built for construction of Pier 7. Following the completion of Pier 7, the pile crane would be used in the operation of the pier itself, handling cargo weighing as much as 80 tons—a task which has heretofore required the erection of special equipment each time a large piece of machinery was to be removed from a vessel at Manila”](image)

The spectacle combining the effort of human and machine completed a heroized image of cooperation. The machine was not something that workers swore allegiance to, it was something that they were already a part of. The leaders of the insular government were acutely aware of the importance of the project as viewed from the city itself—a drama of modernization that unfolded to the daily astonishment of a captive audience. When work accomplished was of a less than spectacular nature, it induced low levels of anxiety for the sponsors of the project. Such was the

case when for a period of time an amount of exclusively subaqueous work had to be executed
“due to the fact that in years past enormous quantities of ten and fifteen ton rocks have been
more or less indiscriminately strewn, for shore protection on the pier site,” which head engineer
E.C. Carle lamented made it appear that little progress had been made. There was of course no
lag in the progress of the pier’s construction, but it did not present itself, as it had during other
stages of its construction as an impressive and gigantic display of progress. That is to say that
Carle, and the colonial sponsors of the projects viewed construction as a sort of intensive and
tempo-driven performance.

The visibility of these sublime scenes was of central importance, as the construction of
Pier 7, was in many ways intended to reproduce an American system of belief, one shored up by
a deep penetration of public works projects into the collective American psyche. As the historian
David Nye recounts, by the early nineteenth century, large public works projects had already
become inseparable from an American conception of self, an identification enhanced by the fact
that these technological objects and landscapes had not only radically transformed the
environments in which they were situated, but in even more significant ways, forever altered
their everyday lives, bringing electricity to their homes, water to their taps, more dependable
crops, and products to their stores. The 300 mile long Erie Canal, for example, completed in
1825 and built in only eight years, more than doubled the volume of east-west trade in its first
year of operation, stimulated urban development along its banks, and accelerated westward
migration. It made western agricultural produce available to eastern cities and acted (by means of
creating regional relationships) as a powerful political link that permanently and materially

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4 *The Bureau of Public Works Bulletin*, January 1, 1922. Pg. 26
bound the Great Lakes region to the East.\textsuperscript{5} Hydroelectric dams, waterworks and the massive irrigation systems to follow would further cement this inseparably double conception of the American landscape. The construction of Pier 7 was in many ways directly analogous to the Erie canal project. Though it did not provide an actual physical link between two American regions, it monumentalized American control over a number of profitable East-West and intra-Asian shipping lanes, in addition to announcing Manila’s unique status as the United States’ landing pad in the Far East. As with the Erie canal this was not merely a symbolic link, but a link intended to stimulate development, attract investors, and greatly increase the volume of trade.\textsuperscript{6} The Pier as completed, however was not especially intimidating, particularly when viewed from the land. The Pier head, designed by Tomás Mapúa, a graduate of Cornell University and the first registered architect in the Philippines presented a friendly face to the city reminiscent of the dignified industrial beauty of the great glassed in archways of Penn Station, Grand Central and Burnham’s own Union Station. It was not the building itself that provided the sublime experience, but rather the spectacle of its construction—the spectacle of permanent and fearsome change.

![Image of Pier Head No. 7 Pier, by Tomás Mapúa, 1921](image)

Figure 7.11 Pier Head No. 7 Pier, by Tomás Mapúa, 1921

\textsuperscript{5} David Nye, \textit{American Technological Sublime}. Pg. 33

\textsuperscript{6} The value of the Philippines lay not only in its domestic market, but perhaps more importantly in its proximity to the far more profitable Chinese and Japanese markets.
While the pier head still communicated in architecture’s standard language of beauty and proportion, the construction of the pier operated on a register beyond even symbolic language. The drama that unfolded above the mercurial surface of Manila Harbor over the course of a few short years was presented as nothing less than America’s scientific triumph over nature—a conquest that played itself out over and over again across the archipelago. Wherever this transformation took place it produced bonds of solidarity that transcended a uniformity of belief.  

This ritualized process of transformation was especially important in the colony, where English was scarcely spoken amongst the native population. Thus, while an elite band of Filipinos of an often maligned cacique class, battled with the insular government over direct control of the insular treasury behind closed doors, Manila’s masses bore witness to the awesome power of machines that were making dramatic transformations to the environment each and every day. It did not matter what the native might have felt about the dramatic changes rapidly descending upon the archipelago, the sublime did not operate on a rational register, rather it took root in a universal and unspecified emotion, defined not by its qualities but by its magnitude. A shared reaction to such works preceded a judgment of them, they were awesome and awe-ful before they could be rationalized as either positive or negative developments. As such, it was arguably more instinctive for Filipinos to identify with massive public works projects than it was to identify with the otherwise purely honorific monuments (which will be discussed in more detail in the next chapter).

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7 This is a paraphrasing of a David Kertzer quote, which appears in David Nye *American Technological Sublime*, pg. xiv
Figure 7.12 Pier 7 in operation. Notice the large area of clear land between the pier and the Warehouses—these areas remained clear as the reclaimed land was still settling. 1931

Large Undertakings: Building American Landscapes

It was not only in Manila that the Bureau of Public Works engaged large undertakings. Elsewhere on the archipelago hydroelectric dams brought electricity to the archipelago’s cities, irrigation systems (usually connected to the dams) turned once ‘untamed’ landscapes into productive fields. The insular government relied heavily on the visibility of these projects which not only fulfilled goals of development, but also served to shore up confidence in America’s benevolent intentions. Whereas the most dramatic changes taking place in the metropole unfolded in Manila Bay, the most dramatic changes taking place in the provinces were massive irrigation works. Irrigation was, Forbes believed a logical place to begin with the improvement of the archipelago’s condition as a whole. Besides, Forbes claimed that there “was little difficulty in interesting the Filipinos in irrigation.” They understood its value, he argued, largely on account of the fact that minor irrigation projects had been executed by the Spanish. Thus
Filipinos understood that without irrigation crops were “subject to the uncertainties of the season, (fell) off sharply in times of drought, and allow(ed) only one crop a year, whereas two could have been obtained from the same ground and with little more work, had water been available.” Forbes, however was not interested in improving the lot of small farmers, he was interested, first and foremost in improving the conditions for capital investment on the islands. The first major irrigation project undertaken under the direction of the Bureau of Public Works began construction in 1910, in the municipality of San Miguel in Tarlac province, for the exclusive use of the Barcelona based Compañía General de Tabacos de Filipinas.  

Immediately large crews descended upon the worksite. Impressively the project reached 90% completion in just a single year. In July of 1911, however “an extraordinary flood which occurred… destroy(ing) the dam. This unfortunate occurrence,” Forbes wrote, “seriously discredited the irrigation division of the Bureau of Public Works, especially as an investigation

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8It was because the Compañía General de Tabacos de Filipinas owned the entire lot of land to be serviced by the irrigation project that it was the first of two hundred and sixteen projects identified by the irrigation committee of the Bureau of Public Works to be built, as this “obviated the legal difficulties” that often faced irrigation projects, mostly stemming from the complexities of private access to public water that often runs through multiple private properties.
disclosed the fact that the dam had been poorly located and inadequately designed." 

A full apology for the dam’s failure was published in the June 1912 issue of the Quarterly Bulletin of the Bureau of Public Works read, “the Bureau does not wish to conceal (the failure… which) in many ways embarrassed the government… the lesson of those first mistakes will not soon be forgotten.” Despite the setback, “a new and larger dam was successfully built, and has supplied irrigation for that district since 1913.” Despite the setbacks, the results, Forbes argued were profound. By 1926 the estate on which the dam was built produced 250,000 bushels of rice and some 65,000 tons of sugar cane, progress that allowed the company to install in 1928, one of the largest and most modern sugar mills in the world. While the profits from the project went straight to the Compañía, the benefits, Forbes argued were generally enjoyed by a community made more prosperous by the generation of material wealth.

In the same year that construction began on the San Miguel dam, Sergio Osmeña, an ambitious, young Philippine Assembly speaker proposed another dam project for his home town of Cebu City (900 kilometers south of the capital on the island of Cebu). The dam, now known as the Buhisan dam, was constructed by the Atlantic, Gulf and Pacific Co., the first of dozens of irrigation, waterworks and hydroelectric dam projects that would be constructed by that same company. In order to complete the project AG&P had to build a small-gauge railway to carry construction materials from the port of Cebu to a site located about 30 miles south and several thousand feet above Cebu City in the sparsely populated mountains of the Buhisan Barangay. Thousands of barrels of cement from Hong Kong, and 4,000 tons of steel imported from

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9 It is of particular interest to note that Forbes relays this anecdote in the first edition of his two volume ‘history’ The Philippine Islands, which was reissued in 1945 without mention of this particular failure. A full apology for this failure was published in the June 1912 issue of the Quarterly Bulletin of the Bureau of Public Works.
Glasgow paraded through the city and disappeared into its picturesque mountain backdrop. The massive coordination effort was a sight to behold, and despite the dam’s remote location, the destination of all of that material became a source of fascination for curious locals. Once physically encountered, the appearance of these colossal works was made even more mystifying on account of the fact that components out of which the dam was constructed bore little resemblance to its final shape or size—it took on the appearance, in other words of a sort of transubstantiation. Upon the dam’s completion, the materials that vanished into the mountains returned to the city in the form of clear, potable water under a tremendous amount of pressure. The inauguration of the waterworks was monumentalized in the heart of the city with the dedication of an elaborate fountain placed at the center of a roundabout, that along with the newly completed City Hall, formed the city’s main axis. It is important to note here that this monument was not an empty symbol—unlike the metaphysical form of the Washington obelisk or the honorific threshold of a triumphal arch, it contained far more than symbolic meaning. In the arched sprays of spilling water were all of the “great benefits…already accrued to the city of Cebu,” where “the general health of the community has been improved (and)… fire risks have been greatly lessened. It was furthermore satisfying, Osmeña emphasized because the city “has shown its ability to meet all payments of principal and interest on the borrowed money.”

The fountain made infrastructure and technology a salient, physical, and pleasing presence in the city and demonstrated that the city’s surrounding landscape could do far more for the it than serve as its picturesque backdrop. Here nature was organized, channeled into a single and unbroken system of concrete, steel, and cast iron, and rationalized at its terminus into a useful and beautiful

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form. Here the sublime and the beautiful are not opposed, but are merged, and appear at opposite ends of a single infrastructural organism.

![Figure 7.15-7.16 (left) Sergio Osmeña Dam, or Buhisa Dam (right) Fuente Osmeña circle with Cebu City Hall in the Background](image)

This much heralded project would be followed by dozens more including Angat Irrigation works, Trinidad, Santa Barbara in Iloilo, Baruyen River in Ilocos Norte, the Tagudin in Ilocos Sur, Amburayan in La Union, Talavera River in Nueva Ecija, the Angat Diversion works in Bulacan, &c. Irrigation projects, perhaps more than any other class of projects handled by the Bureau of Public Works reflected a particularly American way of engaging with the physical landscape, which was described not in terms of its geographical features or picturesque qualities, but in terms of its unmined resources, embodied powers, and commercial opportunities, as illustrated by the following description of the province of Lanao del Sur that appeared in *Far Eastern Review*:

> Perhaps no other part of the Philippine archipelago is so rich in water power as is the favored District of Lanao. On the south side of the lake, the falls of the Mataling River are capable of supplying power to the entire southern half of the district. In another column (of the magazine) will be found a description of the marvelous Agus River and falls, and the possibilities of the development for the northern half of the district. The application of such power to logging and milling,
and the movement of modern farm machinery are interesting studies for those who have capital to invest and secure large returns.\textsuperscript{11}

Figure 7.17-7.19 (left) Frederick Edwin Church’s “Niagara Falls From the American Side”\textsuperscript{1867 (right) Mataling Falls Photo from the Quarterly Bulletin. The caption reads: “The falls... start with a sheer drop of 22 meters and are quickly followed by cascades giving an excellent opportunity for power development.}

What the above quote demonstrates is that Americans engaged the Philippine landscape in a distinctly American way—a capitalist/colonial mode that sought out the power embodied in the landscape itself. The sublime American landscape was the \textit{sine qua non} of American capitalism. When Nikola Tesla first set his eyes on Niagara falls in a photograph, he did not see, as Frederick Edwin Church had a scene of sublime power, but rather a quantity of sublime power. In Nikola Tesla’s imagination it was a power already converted. A quick mental calculation revealed to Tesla up to a half of the Eastern seaboard bathed in electric light. The American sublime was, since at least Tesla’s time linked to the idea of nature’s transformation, its reorganization according to the needs of an industrialized American society. It was this process of transformation or of development, and not the nation’s lofty and abstract founding principles that American expansionists argued was the \textit{real} underpinning of American life. All of which

\textsuperscript{11} “The District of Lanao” in \textit{Far Eastern Review}. May 1906. Pp 416-418
begs the question, what was the nature of this reality? Were the American or Philippine landscapes any less “real” before the construction of the Erie canal or of the Angat irrigation works? Certainly not, but as Forbes points out, before the construction of these public works projects, there was no real “money to be made.” Forbes, like many other ‘pragmatic’ men of his time, equated “reality” with observable change on the one hand and financial returns on the other. What Forbes presented as reality, was in fact simply a desire to shape reality along certain ideological lines. The presentation of this reality, however was not always pleasing—it was more often heroic, muscular, and streaked with a carbon stain.

This reality had to ennobled, as it had been at the Columbian Exposition. This was even more imperative in the colony, where the aims, purposes, benefits, and ultimate beneficiaries of public works projects were often called into question. What is seen in the Philippines, in all manner of infrastructural forms, and much more commonly than it was seen in the United States, was not a separation of the sublime and the beautiful, but a new relationship forged between the two. If the machinery of construction presented the industrial sublime to the archipelago, then the public works as completed objects spoke a different language. This can be seen in the neoclassical pier head appended to the cavernous industrial body of Pier 7, in the animated spray of the Osmeña fountain, in the standpipe of the Singson waterworks—absurdly rendered as a chubby and freestanding column, and as it more subtly appears in the vaguely temple-like arrangement of the Santa Barbara irrigation works. Classical beauty was invoked again and again in public works projects built throughout the archipelago. At the turn of the century the question of beauty was no trivial matter, especially in the United States. While the industrial sublime was an almost organic American development, a civilized beauty would not come ‘naturally’ to the United States. Whereas construction would render an image of radical change, the buildings and
pieces of infrastructure as completed bore the responsibility of expressing historical continuity
and stability by recalling, even if in the most awkward forms, a beauty that Americans attempted
to place somewhere outside of industrial time.

Figure 7.20-7.21 Standpipe of Singson Waterworks, opened in August of 1915 (right)
floodwater gates of the Santa Barbara Irrigation system
Plasticity

As a building material reinforced concrete possesses unrivalled plasticity. This was so much the case that it was considered in the early days of its architectural employment as particularly susceptible to ‘deceptive’ or imitative uses—an agency that introduced a sort of materially based morality not yet seen in the history of architecture. It was, for example considered a key ally in the construction of Vienna, so famously described by Adolf Loos as a “Potemkin City.” His answer—the unadorned exterior walls of Villa Müller were a fanatic profession of the building’s unapologetic modernism. The historian Reyner Banham, also seeking an appropriate ‘expression’ for a concrete modernity first passionately devoted himself to an ‘honest’ expression of concrete’s ‘brutalism,’ before flipping in favor of trumpeting its lighter and more ludic abilities. Though material ‘honesty’ had become a basic tenet of architectural modernism, this moral consensus did not produce a consistent style. And, even despite the fierce and prominent champions for ‘honesty’ it was a more ‘disingenuous’ Beaux Arts classicism that would be the predominant style for concrete construction in the early years of its use—a language that at least in Western Europe had the effect of dampening the shock of the modern. In the Philippines, the question of style would also be a consuming issue, though the pressures that drove changes in ‘style’ were not organized around a truthful presentation of modernity, but rather around how concrete might best serve the goals and methods of American colonial governance—goals that revealed their own plasticity over the course of American colonial rule.
A Tropical Beauty Captured in Artificial Stone

Concrete for the exterior of monumental building projects is admitted by the architectural profession to be the least desirable of all masonry materials. Its natural color is gray and lacking in vibrant quality capable of producing pleasurable color sensations. Furthermore, while the natural effect of time upon accepted building stones produces a weathering beneficial to their tone quality, the effect of weathering upon concrete is decidedly detrimental, and results in a more unsightly and depressing aspect than is presented by the newly constructed material.

Since the construction of genuine ashlar stone exteriors is impossible at the present time, a synthetic artificial stone has been devised comprising granulated particles of handsome local marbles… mixed with cement in such proportions as to make the marble particles completely preponderant. The surface of this product, being tooled to expose the actual marble aggregate, produces a vibrant color tone by virtue of the exposed particles of marble, and resembles in mass the appearance of white marble or cream warm lime stone, as may be desired, which responds to the gorgeous colorings of tropical sunlight.

…Since the manufacture of this synthetic stone is found to be somewhat analogous to the manufacture of terra cotta, it is found possible to obtain, without unreasonable expense, an ornamentation of public buildings consistent with the standards of good taste exemplified in the classic and renaissance architecture.

-Ralph Harrington Doane  
Consulting Architect to the Bureau of Public Works
On the eve of his departure as the last American Consulting Architect to serve the Philippine Insular Government, Ralph Harrington Doane summed up his thoughts and experiences in the article “Architecture in the Philippines,” first published in the *Quarterly Bulletin of the Bureau of Public Works*,¹ (republished for an American audience a year later in the *Architectural Review*). In it he described the cultured stone he intended to use for the archipelago’s monumental civic building programs. The artificial stone, as described by Doane, was a finely tooled concrete, created from an admixture of imported Portland cement and local sand and aggregate. The surface of the artificial ‘stone,’ once released from its formwork revealed the same dull grey finish of the concrete, already omnipresent on the archipelago—a surface indistinguishable from those of a host of utilitarian and infrastructural programs being built throughout the archipelago—water towers, bridges, roads, culverts, sewers and “sanitary” markets. It was a finish that Doane thought inappropriate for monumental projects, not only because of its dull grey quality, but also on account of its increasing ubiquity, and its already strong associations with the more prosaic functions of the insular state. It was a finish that Doane intended to amend by chipping it away, either by hand or with the aid of a pneumatic bush hammer, in order to expose the concrete’s distinctive and otherwise hidden sparkle. The resulting material was intended to reflect, not only a geological specificity, but also a prismatic animation of “the gorgeous colorings” of the islands’ tropical sunlight. In Doane’s words:

…the tropical sun is a more gorgeous sun by far than is ever seen in the temperate climes. The low-lying solar displays of the temperate zone, that seem to hug the horizon so close, are tame in comparison. A sunset seen from New York looks as though it was really taking place at San Francisco, but in equatorial regions the sun sets right where one happens to be. Great banks of fluffy white clouds sail up

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from the immediate horizon high into the heaven, and lighted by flashing golden shafts, and played upon by a galaxy of colors gorgeous beyond description, seem to form a gigantic canopy of nature’s most marvelous stuff, shutting out all the cold world beyond and producing effects which are of great importance in architectural design.²

Doane’s artificial stone was not manufactured until 1913, after large deposits of the fine white marble were found on the island of Romblon, a small volcanic island with rugged topography, today known as the marble capital of the Philippines. In that year, following Doane’s request, the insular government organized the Romblon Marble Co. for the express purpose of providing the marble chips for the ornamental concrete to be used for the archipelago’s monumental civic programs. Though high quality marble deposits were large enough to obtain both slabs and blocks, the rich quarries were, according to Doane “so underdeveloped… as to make it impossible to obtain stone ashlar veneers for concrete walls.” Indeed, the marble chips were extracted and processed in the same way that the aggregate for all of the concrete to be mixed on the islands was extracted, with a crude combination of cheap labor and rock crushers. Though records of what kind of labor was used to extract the marble chips of Romblon are either non-existant or difficult to find, it is likely that prison labor was used, as was the case for the rest of the aggregate used in the construction of the roads and other infrastructure, which came mostly from Talim and Malahi Islands (islands situated within the fresh water lake of Laguna de Bay, lying just inland from Manila), where prisoners were sent to fulfill sentences of hard labor.

There, prisoners mined large quantities of basalt—a hard, dark mineral valued not so much for its unique qualities as for its quantity and convenient location, situated a short train ride from the capital. Romblon Island was located a couple hundred miles south of the capital. Access roads,

rock crushing machinery, an assembled labor force and inter-island transportation had to be arranged for its distribution, a tremendous and coordinated effort dedicated to capturing the ‘natural’ color of the archipelago’s tropical sunlight.

In What Style Should We Build?

Though the master material of Philippine architecture was set in stone, so to speak, the question of style, on account of concrete’s plastic abilities was left as somewhat of an open question. The programs that carried the heaviest symbolic weight—the Legislative Building, the Post Office, the City Hall, and the headquarters of various government bureaus would all be built in a Neoclassical manner—a style that Doane defended as almost self evident.

America began its history, as the Philippines began theirs, without any native architecture, but has legitimately followed Ancient and Renaissance precedents, making such adaptations as were necessary to solve American architectural problems. The Philippines might well proceed on the same policy, utilizing the best in the classic, renaissance, and modern architecture, with the modifications necessary to produce a style eminently suitable to these Islands. There is no more logic in refusing to erect buildings in the Philippines of a distinctly American character than there would be in declining to use electricity because of its American derivation.³

It would seem, by Doane’s account, that the use of a classical language was all but inevitable. His narrative posits Americans as the legitimate inheritors of the Classical tradition, and following upon a tutelary sentiment, deemed it an appropriate language for America’s Filipino pupils. His claim is that the adoption of a Classical language was as pragmatic a choice as it was an ideological one—an ennobling language befitting a true democracy, the use of which was as common sensical as was the use of electricity. Of course, it seems that a Beaux Arts driven

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Classical was all but codified as the official language of the City Beautiful movement. It is surprising then, to read that some thirteen years earlier, Burnham concluded his “Report on Improvements at Manila,” delivered to the U.S. Congress upon his return to Manila, with a few notes on his preference for the Spanish colonial style already to be found throughout the capital, writing that,

> The first consideration in determining architectural style is the question of adaptability to local conditions. In any given locality the things already existing as a result of long experience in the city are likely to prove the best. In Manila this general rule seems to apply with especial force.

Burnham goes on to specify what exactly it is that he admires about the local built environment, which included the wooden domestic architecture with its overhanging second stories and continuous wooden screens, which were, he wrote, “practical (on account of the shade they provided) and artistically admirable.” Already a witness to the changes modernization was ushering into Manila, he lamented the recent prohibition of the overhangs by the municipal board on account of the difficulty they posed to the erection of telegraph and telephone poles, which he suggested could be resolved by stringing concealed lines from rooftop to rooftop. He also defended the “beautiful roofs of Spanish tile,” which he mourned were “losing ground before the invasion of galvanized iron.” Most tellingly, he commented on the stone masonry construction, the pleasing effect of which, he wrote could “hardly be improved upon,” adding that it would be far more easily achieved (and convincingly rendered) in an earthquake proof and economical reinforced concrete. In short, Burnham suggested that Manila should look,

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4 He suggests that “some other method of supporting electric wires—perhaps from the housetops—might be devised in order that a desirable method of building may not be discontinued”
5 Burnham named buildings upon which architects could draw upon as architectural examples including the Ayuntamiento, the intendencia, the cathedral, the tower of Santa Cruz, the circular cemetery on calle Nozaleda, and the inner court of the present constabulary barracks at Parañaque.
much as it did to him upon his arrival, with the exception of its increased economy and efficiency. He did not believe its historical image was at all at odds with its future functionality as a modern and convenient American colony. The construction of an historical image, in the interest of dignifying American and corporate imperatives was by then Burnham’s stock and trade. The provenance of that image (one belonging to a defeated colonial power) did not seem to matter so much as the ennobling effect of history itself.

This sensitivity to the Spanish colonial precedent was the general consensus amongst most architects who had anything to say about America’s “acquired architecture” as Montgomery Schuyler called it. Why was it then, that following Burnham’s departure that the insular government chose to deviate from the master planner’s suggestions and build its marquee civic programs in a Neo-Classical manner? The answer reveals far more about the American insular regime—its internal conflicts, ideological goals, and managerial techniques than one might expect from what at first seems a simple choice between architectural styles.

Before Burnham

The first American architect to serve the insular government, was the young, obscure, and relatively inexperienced Edgar Ketchum Bourne. Bourne belonged to a respectable if not prominent family. The son of a clergyman, his paternal grandfather, Benjamin Bourne was Rhode Island’s first congressman and his maternal grandfather was Edgar Ketchum, a well-known lawyer and abolitionist. Bourne, who entered private practice after graduating from the City College of New York, had completed less than half a dozen buildings before his

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appointment, including the Bedford Park Congregational Church (where his father served as pastor 1891), a library in Harlem (now the Greater Bethel A.M.E. Church 1891-92), and a seven-story apartment building, also in Harlem. All were built in an eclectic style incorporating elements of the neo Renaissance, Richardsonian Romanesque, Shingle and Queen Anne styles, among others.

Bourne arrived in the Philippines on October 10, 1901 before the position was even officially created. Following the formalization of his appointment as Chief of the Bureau of Architecture and Construction of Public Buildings, he was given a staff of eight including a superintendent, three clerks, three draftsmen and a messenger. His earliest work consisted mainly of repairing existing buildings for the immediate occupation and use of the insular government. Soon, and especially after the declared end of the Philippine-American War in 1902, the purview of the office expanded as the future extents of the colonial program came into sharper focus. The office staff grew rapidly as the growing demands placed on the bureau increased. By the end of 1901, in order to keep abreast of his increasing workload, Bourne had added a disburser, four draftsmen, two engineers, and a master builder. The master builder, whom Bourne considered “the most important of the additions” instructed and managed Bourne’s mostly Chinese and native workforce on proper building techniques.

Stylistically uncommitted, Bourne chose to educate himself in the local colonial idiom, purchasing for his office Max Junghandel’s giant folio, Die Baukunst Spaniens, Owen Jones’ wildly popular Details and Ornaments in Spain, and Andrew H. Prentice’s Renaissance

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7 Though the war, then referred to as an insurrection, was declared officially over on July 4, 1902, guerilla warfare continued, which was often conducted at a more intense level than during the war itself.

8 report of Philippine Commission 1902. Pg .924
Architecture and Ornament in Spain. Bourne also educated himself by becoming familiar with the existing skilled labor on the islands. His first report as consulting architect included several examples of locally made wrought iron work, which made clear his intentions to fully exploit already existing methods of building and ornamentation.

The two most important buildings built under Bourne’s charge were the Insular Ice and Cold Storage Plant (introduced in “stability”) and the new Government Laboratories Building. Bourne dressed the former (which actually began construction before his arrival) in a thin layer of ornament, applying to its broad faces, a brick veneer of awkwardly proportioned blind arches and shallow engaged columns. He also added a series of mirador towers to disguise most of the building’s machinery. The exception to this was a single black smokestack, fluted to look something like an ionic column, which proudly jutted ten stories above the center of the building. The application of architectural motifs served as a means of dignifying American Manila’s first essential, though banal official program—essentially a giant refrigerated warehouse.
A greater aesthetic investment was placed in the government laboratories building, where Doane took great liberties to innovate. Here Bourne would put to work the full range of skills of his newly assembled atelier. Built with hollow wall construction, on which a “surface of cement (would be) roughly floated on,” its façades were adorned with low relief mission revival motifs, and though far simpler than the baroque constructions of *Die Baukunst Spaniens*, it was perhaps the most exuberantly articulated public program ever built by the Americans in this style. The most important building built under Bourne’s charge, it showed Bourne’s attention to detail when given a project of great complexity. It was, however this attention to detail that most likely led to Bourne’s eventual downfall. In July of 1903 he was charged before the Office of the Secretary of Public Instruction with incompetence, and the plaintiffs, a group of contractors, pleaded for Bourne’s removal from office “by reason of his arrogance and by reason of his arbitrariness.” Though the allegations were vague, one finds upon further inspection of the legal record that the disagreement lay in the process of construction. Whereas American contractors arrived on the islands with standardized methods and construction systems in hand, Bourne offered baroque details, novel construction methods and a desire to innovate architecturally. His focus, was however misplaced. Though both polished and dignified in its appearance, the government laboratories building was a fussy thing to construct, and needed to be expanded not long after its completion.

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9 The government laboratories building contained laboratories of various kinds dedicated to several divisions by 1906 this included the divisions of biology, chemistry, serums and prophylactics, mines. By 1912 the laboratories were more closely related to the specific needs of the islands. An engineering division included extensive testing facilities for cement and construction machinery.

10 For the laboratory building Bourne provided a painstakingly detailed report. It is clear by the care he placed into the report that he intended the laboratory to stand as a model for future architectural design and construction in the Philippines. See “New Government Laboratory” in Report of the Philippine Commission, 1902-1012-18).

11 See Manila Times, July 17, 1903
Conspicuously missing from the language of Bourne’s reports is any mention of the economy and efficiency that would be so valued by both Burnham and Forbes. In preparation of Burnham’s arrival, Bourne’s atelier was disbanded and he was officially pushed out of his position as a consequence of the Reorganization Act. Though there is no mention of it in the official records, Forbes reveals in his journal that he was personally responsible for Bourne’s removal, writing that “the office of the Insular Architect was a scandal,” and that Doane “was without taste or tact, his works hideous, and structures were done without the artistic eye and architectural sense that should be evidenced by a civilized people as an example in dealing with less civilized peoples.” Forbes, unable to fully convince the Commission of Bourne’s incompetence, insisted upon his removal, and that furthermore the new position of Consulting Architect should be transferred to his office, which he asked to stand in as his “pay for doing this reorganization job,” a request that then Governor-General Wright granted to Forbes “in that
This, Forbes made a point of saying was all the compensation he received for all of the extra work of Reorganization, for which the other Commissioners received “promotions, salary increases or direct cash payments.”

Elaborating in his journal, on the necessity of this new arrangement he wrote:

( the ) transfer of the office to my department was necessary in order to achieve any architectural fitness in our work, because with an unsympathetic secretary (Forbes is here referring to himself), the architect would have a pretty hard time when he ran up against the hard-headed bureau chiefs, each of whom wanted his ideas carried out in regard to his structures—school buildings, customs houses, provincial buildings, hospitals, etc., etc. Unless the secretary of the department supported the architect and insisted upon architectural beauty and good design of buildings, the utilitarian bureau chief would have been prevailing and no good architect would have been willing to remain in a position where his recommendations were being constantly ignored or turned down. 

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12 The reorganization of the insular government was Forbes' first assigned task as the new Commissioner of Commerce and Police. See Chapter Three of this dissertation for a full description of Reorganization.

Thus, when Burnham arrived in Manila in December of 1904, his Beaux Arts trained assistant, Pierce Anderson, in tow, the two were personally and exclusively handled by Forbes.

Following Burnham’s departure, the architect promised Forbes that he would find an architect of a caliber fit for the job. Burnham, after some difficulty found William E. Parsons to execute his master plan. Parsons, then working as head draughtsman in the New York office of John Galen Howard, was born in Akron, Ohio, graduated from Yale with his B.A., followed by a B.S. at Columbia University. Upon graduating from Columbia, Parsons received the McKim prize, which earned him admission to the École des Beaux Arts, where he trained for three additional years. In a letter written to Forbes, Pierce Anderson, who had personally found the young ingénue, wrote that Parsons was,

a man who is less interested in the mere matter of the aspect of things than in the real solutions of the practical problems of architecture—a man whose desire is to produce an efficient machine capable of doing its work besides carrying a little over-load. I think he is a sane reasonable fellow and I hope for great things from him.14

It, would seem from Anderson’s letter that despite their Beaux Arts pedigrees, both Anderson and Parsons were valued first and foremost for their pragmatic reasoning skills and their abilities to deal with ‘real’ conditions. Forbes wrote in his journal of his confidence in Parsons, who he wrote “… was thoroughly trained, and his work was…admirable.” Furthermore “He was a Yale man, class of ’95, and … was (most importantly) selected by Burnham for this job.”

William Parsons, “An Efficient Machine”: An Aesthetic of Standardization

Thus Parsons began his work under Forbes’ direct sponsorship. Parsons’ work was a clear reflection of Burnham’s prescriptions as far as style. Like Bourne’s work, Parsons’ earliest work in the Philippines was all done in a Spanish Mission style. However, Parsons work differed from Bourne’s in one very important aspect—it was simple. So simple, that it would be described by subsequent Consulting Architects as “severe.” Parsons, reflecting on the simplicity of his completed work in the Philippines stated that the ‘successful use’ of reinforced concrete depended not upon “moulded decoration or applied color” but, rather upon “finely proportioned masses and interesting relations of openings to solids,” a spare aesthetic that applied best to tropical climates where “there is an abundance of luxuriant and colorful foliage to contrast with plain wall surfaces.”

Parsons’ work and his own descriptions of it, closely echoed those of the Californian architect Irving Gill, whose work is largely appreciated as a sort of unpretentiously minimal, climactically informed modernism. Gill, known for leaving large expanses of bare concrete to serve as blank canvases to be animated by climbing bougainvillea and the golden rays of California sun was a far more eloquent writer than Parsons. Of his own work, Gill wrote that his inspiration for architectural simplicity lay in the West’s bare vitalism, “the newest white page turned for registration,” where the “straight line borrowed from the horizon… and (the) arch patterned from the dome of the sky.”

Whether consciously or not, by equating abstraction with the push towards a sparsely inhabited West, Gill naturalized manifest destiny and America’s venture into new climates as an organic step in the fulfillment of the modernist telos. Despite similar aesthetic claims for simplicity however, for Parsons architectural abstraction was rooted

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primarily in an efficiency driven functionalism. Indeed, to read Parsons’ work through its aesthetic qualities would be ignore his primary achievement—quantity.\textsuperscript{17} Parsons was responsible for an astonishing amount of building during his tenure as consulting architect, an achievement wholly due to his development of an eminently buildable architectural language, one that attempted to reconcile efficient construction with reasonably pleasing compositions by working through subtraction rather than with additive elements, and through the cadence of fenestration, rather than through applied ornamentation.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure7.7-7.8}
\caption{Parsons’ Army and Navy Club and the Philippine Normal School. Both show minimally decorated elevations “enlivened” by tropical planting.}
\end{figure}

Parsons’ achievements place Bourne’s insufficiencies in deep relief. Parsons was able to find an aesthetic that allowed him, while working closely with William Cameron Forbes to not only

\textsuperscript{17} I make this specific point because the only notable scholarship on William Parsons, by Thomas Hines was a recuperation of Parsons wholly based on his aesthetic abilities—an appreciation of his simplicity as a distinctly modern sensibility. Hines wrote that Parsons’ work shared affinities with Irving Gill’s unadorned, proto-modernist, Spanish Mission style. Rooting Gill’s and Parsons’ aesthetic on climatological grounds, Hines argued that Parsons’ and Gill’s architecture was evidence of modernism’s slow, organic evolution—a “stripping down of, and abstraction of “Victorian eclecticism;” the best examples of which were to be found in the modern tendencies of a Californian Spanish Colonial revival. Hines, who very self-consciously named his fellow travellers as Esther McCoy, David Gebhard and Reyner Banham, offered Gill’s and Parsons’ work as a contribution to an emerging historical conception that opposed the idea of architectural modernism as a violent historical rupture.
systematically manage the execution of Burnham’s plan, but to also manage the execution of archipelago wide systems of schools, markets and provincial and municipal buildings. His accomplishments in the capital alone can be seen in the map below, which shows each of the buildings (shaded in black) completed under his charge during his eight years in the Philippines.

Figure 8.9 Manila Plan showing important public buildings erected during the period from 1906 to 1914, under the direction of William Parsons, indicated in black. Architectural Record April 1917 pg. 305

Parsons’ taste for efficiency made him well liked amongst contractors in the Philippines. From the beginning, Parsons allowed contracting companies great leeway, providing only minimally designed elevations and plans, and few deviations from standard details. A prime example of this was the Manila Hotel. One of Parsons’ first buildings, it was designed jointly with the associated architects of the Eastern Engineering Company. Government owned and managed, it was built to help woo foreign investors and accommodate American personnel, who
according to Burnham were “used to better conditions.” The viewer’s first impression of the building is one of a relaxed colonial ambiance, even of a nostalgia for a departed Spanish regime. Rattan furniture and gently drooping palms populated deep and shady arcades, a large dining veranda captured the spectacular sunset on Manila Bay, and exteriors covered in brilliant fuschia bougainvillea all served to disguise a perfect expression of the rhythms of industrial production.

Like hundreds of buildings built after it, it was constructed and designed using the Kahn system, a proprietary reinforced concrete construction system that employed a steel trussed bar to distribute stress across the length of concrete beams. The use of the Kahn system and the dozens of other proprietary reinforced concrete systems available at the time greatly simplified the act of design, and exposed Parsons’ own interest in his role as an operator of an efficient machine. While one could, on the one hand read Parson’s pared down Spanish Mission style as a reflection of his stylistic predilections, one could just as easily read his architecture as a clear reflection not only of the highly repetitive rhythms of a predetermined structural system, but of

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the changes initiated by Forbes as a part of his Reorganization Act, in that it reflected a form of governance driven by the kind of efficiencies only achievable by a highly centralized corporate order.

In short, Parsons’ mission style was far more informed by what he called an expression of “real conditions,” than it was linked to some lofty historical reference. The real conditions, which included accommodating the contextual features of the site also, more importantly, included the consideration of an efficient method of construction. That is to say, while Bourne attempted to solve architectural problems by inventing new details, Parsons worked with the off the shelf systems that were beginning to flood the Philippine market, a strategy that allowed him to work on Burnham’s plan as a whole. Working on the plan as a whole, however did not preclude a certain amount of attention to detail. His preferred standard for fenestration, for example were capiz shell windows, a locally manufactured craft that added a warming native touch to his compositions. Though he championed this choice for the quality of light it achieved, a “soft, pearly light” in Parsons words, it was in this way that he was best able to make efficient use of the skilled, cheap, and abundant labor already present on the islands, while saving money on plate glass—an expensive and difficult to ship commodity. Unlike Bourne’s interest in wrought iron, a skill practiced by a handful of Chinese and native craftsmen in Manila, capiz shell windows, were a common craft practiced throughout the islands, and a “craft” that in its repetitive simplicity was easily scaled up such that their production was indistinguishable from more mechanized forms of mass production. Thus, though technically produced according to less efficient “preindustrial,” modes of making they were by no means representative of a less
efficient way of building. This “traditional” touch was thus also thoroughly modern in terms of its aims towards economy and efficiency.\textsuperscript{19}  

Parsons developed this semi-standardized style for what were considered the capital’s more important government buildings—the hospitals, customs houses, and leisure programs that served mostly American personnel. When it came to building more quotidian programs in the provinces, Parsons specified a method of total standardization (addressed in the next chapter).

\textsuperscript{19} Parsons’ use of capiz shell windows reflected a general vested interest in local craft, a program vigorously pursued by the insular government, which aimed to develop not only ‘native’ Philippine crafts, like silk and piña embroidery (originally taught to Filipina orphans by Spanish nuns), but also other labor intensive craft products like “Irish lace.”
The Administrative Order: Parsons’ Neo-Classical Turn

The last building that Parsons designed in the Philippines was the Paco train station. It was one of a handful of buildings built following a distinct turn towards a Neo-Classical idiom, more indicative of his Beaux-Arts training, a move that Thomas Hines characterized as stylistically “regressive.” While it was a style that was for the most part foreign to the Philippines before the arrival of the Americans, Parsons argued for its climatological appropriateness, on account of the fact that “(t)he home and origin of classic architecture are in the near tropics, where it rightfully belongs.” Parsons argues that his introduction of the colonnade to the Philippines was done “not merely (for) decoration,” but, rather for its original purpose of circulation. This was the case with his Paco Train Station. Built in a simplified Tuscan order, the decorative program was confined to the central portico and limited to a few easy to cast forms—4 proud eagles supporting stiff festoons, a dentil course, and a shallow frieze of alternating triglyphs and rondels. Though for Parsons, this was a greatly increased use of ornamentation, its primary monumental effect was still due, according to his own assessment, “…for the most part, to straightforward design.”20 It was these considerations that demonstrated what A.N. Rebori, a staff writer for the *Architectural Record* characterized as Parsons’ “sureness and skill” in his use of reinforced concrete, a skill that the writer continued “would attract attention anywhere… (and was a) performance… all the more commendable because of the obstacles encountered in the Philippines, where skilled labor is indeed scarce and difficult to train.”21

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21 Ibid.
Despite Rebori’s emphasis on the lack of skilled labor, what is obvious is that by this time, Parsons had found a labor force able to execute a Beaux Arts building—in reinforced concrete, and according to Parsons’ high, albeit abridged standards. He completed only a few buildings in this manner—the already mentioned Paco train station, University Hall (the first building of the new University of the Philippines campus), and the provincial capital of Laguna (just outside of Manila). Parsons’ shift to the Neoclassical, however was not necessarily indicative of a renewed dedication to his Beaux Arts training, but rather was evidence of what was being developed as a finely honed building machine, as demonstrated by what the Bureau of Public Works called the “administrative construction” of University Hall, the first building built as a part of the University of the Philippines:

The construction plant consisted mainly of a Smith No. 2 ½ concrete mixer, with the contingent elevator and shutes…. Four dumping cars were used for conveying the material from the stock piles and cement shed to the mixer hopper, working in pairs. A proportionate part of the gravel and sand were placed in the cars, gravel first, and then the required amount of cement was placed on the top. One car made one batch, and was hauled up the inclined track to the hopper. Dumping it into the hopper caused the cement and sand to get in first, followed by the gravel, in which manner they emerged from the hopper into the mixer. Four minutes were allowed for mixing each batch. It was then dumped into the elevator bucket, hoisted into the desired elevation and dumped onto the shute platform. This
platform was cantilevered and dumped on the side of the elevator, and had three permanent openings with three permanent shute shafts attached. For the first and second floors the shutes were supported on frames, but for the third and floor and corridor roofs the shutes were suspended from cables. It was found that a batch of concrete took five minutes from the time it left the stock pile to the time it got in the forms, and the highest showing for a nine-hour day was 86 barrels of cement.  

Here cement, cars, people, pulleys, hoppers, shutes, shafts, molds, aggregate, water and sand each form part of a single semi-automated machine, a machine that was an integral part of what we could call an administrative order, which unlike the ancient classical orders is not properly defined by its details, profile or proportions, (though one could make deductions based on what was and was not possible to do in reinforced concrete). Rather the administrative order is defined by Parsons’ ability to build “according to actual conditions.” One must look, for example at the restricted palette of decorative motifs, as the spare use of triglyphs and rondels were as much a practical consideration as it was a stylistic one. One must look also for a certain clumsiness in the typically “delicate lines of column caps,” which were modified on account of the fact that “sculptors in Manila… (had) no experience in making a clay model.” In order to see the administrative order, one must learn to read details made in the interest of efficiency, as opposed to those made on a strictly aesthetic basis. Details are more important to understand than the gestalt, as despite cutting corners, the administrative order was successful in achieving, at least for a popular audience, an overall effect, a Neoclassical gestalt. Though the Bureau of Public Works presented this way of building as something wholly novel, there was nothing new about it. The construction of University Hall in fact roughly approximated standard building practices

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23 Ibid.
of reinforced concrete structures in the United States. Here it is elevated to the level of an ‘order’ on account of the fact that this method of building was wholly codified, not only as a matter of efficiency, but also as an important component of colonial policy.

Parsons would have little opportunity to develop his administrative method. He resigned in February of 1914, shortly after the completion of University Hall and following Forbes’ own resignation, which was itself inevitable following Taft’s defeat to Woodrow Wilson, who as a Democrat followed an anti-imperialist line.24 Parsons cited as his reason for leaving that “there seemed to be no further progress to be made under the scuttle policy of the present administration.”25 Indeed, Forbes’ and Parsons’ departure saw abrupt shifts in the structure and stated purpose of the Insular Government. Not long after Woodrow Wilson’s inauguration, the American congress passed The Jones Law, also known as the Philippine Autonomy Act. The organic act, which for the first time officially stated the United States’ commitment to Philippine

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24 The Democratic Party, since 1900 had voiced anti-imperialist sentiments. The Jones Law was passed a little more than a year after Wilson’s inauguration. For more on Wilson's anti-imperialist policy see Roy Watson Curry, “Woodrow Wilson and Philippine Policy” in The Mississippi Valley Historical Review. Vol. 41, No. 3 (Dec, 1954), pp. 435-452.
25 A.N. Rebori, “The Work of William E. Parsons in t
independence was, under the persuasive influence of President Wilson, passed by the US Congress and signed into law on August 29, 1916. The Jones Law, in some ways (but not in others) changed the scope and objectives of the American colonial project. For example, though the activities of the BPW, especially those departments responsible for the construction of the archipelago’s infrastructure would be minimally affected, the nature of the work of the Architectural Division would be totally reconceived. While the Architectural Division, under Parsons, technically operated as a part of the BPW, he answered (per Forbes’ special request) directly to Forbes. Under the new administration Parsons’ ability to execute his own projects and design his own policies were severely curtailed. Bringing Burnham to the islands was largely Forbes’ doing, and Forbes considered executing Burnham’s plan an administrative priority. One might even say the plan was the clearest and broadest outline of the American colonial project under the Taft-Forbes administrations. Thus Parsons, under Forbes, was given great latitude to execute the plan with little to no interference. As a direct result of their close relationship, the construction of the plan took shape along the lines of what Forbes had considered his own political priorities, namely commerce, policing and education, each of which commanded a great proportion of the Parsons’ attention in the form of prisons, schools, and municipal markets. Forbes, in turn exercised what Rebori characterized as his “iron hand of power”—passing laws, appropriating funds, and securing contracts to ensure the rapid execution of Parsons’ work. In Rebori’s words:

26 An organic law is a law or system of laws, which forms the foundation of a government, corporation or other organization’s body of rules. That an organic law was drafted for the Philippines as an eventual ‘sovereign’ state (given it meets certain criteria) was a particularly perverse act.
In the Philippines the men who ordered city plans invariably provided the laws to put them into execution. I am told that three days after the general plan of Manila was approved work was begun. The iron hand of power, when wielded for the public good is a mighty weapon. Witness the stupendous engineering task accomplished in the Panama Zone, the work of our army surgeons in Cuba and the sanitary improvement in the Philippines, especially for the conservation of perishable foodstuffs. Add to such active scientific ability the services of an able architect, and the results achieved by the united efforts are bound to be most gratifying, as they assuredly have been in the Philippines.

This special access to power was an important component of Burnham’s plan, it was one of the key lessons learned through his experience at Jackson Park, and was a point he undoubtedly impressed upon Forbes.28

In fact, it was through Burnham that Forbes learned of the intertwined importance of law, construction, and organization. Unlike Burnham, Forbes would not be allowed to be the absolute ruler of a fantasy fiefdom. Despite his desire to run it that way, the colony was, at the time, uniquely subject to both the whims of a voting (American) public and to the pressures of an increasingly powerful Philippine Independence movement. As the result of Taft’s failure to secure reelection, Forbes would return to the United States not long after Woodrow Wilson’s inauguration. It was a return that would leave Forbes with a distinct sense of having left behind a large amount of unfinished business. Despite this bitter feeling, it was a return that allowed him to make a delayed visit to Burnham’s recently widowed wife Margaret. Only months before the

28 Burnham would only become more convinced of this need for access to power as the execution of various of his plans was to different degrees obstructed on account of insufficient legal structures and a lack of political will (this was especially the case with his San Francisco Plan). He would account for this in his last and, perhaps most important plan, the Chicago Plan of 1909, in which he would specify the “Legal Aspects of the Plan,” which detailed which of the Plan’s recommendations could be carried out under existing legislation and which required legal changes, especially in regulations regarding the city’s power to appropriate private property. While Fisher (the attorney that drafted “The Legal Aspects”) advised that many of the Plan’s proposals were possible within current laws, he observed that the Plan’s most ambitious ideas would require additional authority, the most important being the right to exceed current debt limits in issuing bonds.
election, Burnham had died suddenly of food poisoning in Heidelberg on a grand tour of Europe. Pleased to see “young Cam” as Burnham liked to call him, Margaret bestowed upon him a special gift that she felt her husband would like him to have. It was a small brass ruler that Burnham used to keep at all times in the inside pocket of his vest. He kept it there, warmed by his barrel chest and close to his heart, not because he used it a great deal, Burnham was never so detail oriented, but because it was a sort of talisman, a constant reminder of his belief in the craft, mechanics, and measures of rule.

Figure 8.17 The 1912 organization diagram demonstrates Forbes and Parsons’ relationship at the pinnacle of Forbes’ power. When one compares this to the 1908 diagram, one can clearly see the expanded scope of their combined work. It is important to note that the title of “Consulting Architect” was the same title conferred to Root when Burnham and Root began to work on the Columbian Exposition.
Ralph Harrington Doane and the “Inauguration of Style and Quality”

Figure 8.18  the Organizational Diagram for the Bureau of Public Works of 1917 reflects a new and much reduced role of the Consulting Architect

Parsons would be the last supervising architect to enjoy special access to executive power. It was an arrangement that came to an abrupt end when both he and Forbes left the Philippines in 1913. This changing of the guard, so to speak occasioned a drawing up of a new organization for the BPW, once again published in *The Quarterly Bulletin*. The diagram clearly outlines the new flow of power, and a new and peculiar position for the office of the Consulting Architect, which reveals itself to be an almost powerless office. Here we see that power flows around the office of the Consulting Architect. Though it is clear that the architect occupies an honorific position, close to the center and near the top of the diagram, the office operates autonomously and exerts no apparent influence on the other departments. The literally detached
function of architecture is here defined against both the bureaucratic and utilitarian aspects of building. With little left to deal with in terms of “real conditions,” the Division of Architecture, as will become evident, is transformed into a sort of office of cultural consultants.

Parsons left several plans to be completed by his successors, including perhaps the most architecturally ambitious project—the capitol group, the centerpiece of Burnham’s 1905 master plan. George Corner Fenhagen, who worked as Parsons’ draughtsman since 1911 had, under Parsons’ direction already developed designs for most of the capitol groups’ buildings. Fenhagen, who took over as chief following Parsons’ departure, either did not share Parsons’ skill for systematic thinking, or could not himself achieve much under the new administration. In any case, he accomplished little beyond developing his splendid renderings for the capitol group during his abbreviated tenure as the Consulting Architect. Though still listed as the Consulting Architect in 1916, he had already gone on to open an architectural practice in 1915 with Howard Sill and Riggin Buckler in Baltimore, Maryland, leaving for good following the passage of the Jones Act.

Doane, took over shortly after Fenhagen formalized his departure in 1916. It was during his tenure that the newly defined role of the Consulting Architect would first take effect—a role that would be redefined in order to prepare the transition of the BPW from a colonial bureau into a state-run bureau, under the leadership of a group of American trained Filipino engineers and architects. This was part and parcel of a Wilsonian policy of Filipinization (discussed later in this chapter). Doane was a harsh critic of Parsons’ work, and. judged it on conventionally architectural terms, describing it as “bare, severe (and) undecorated.” Doane continued:

Such a severe architecture as is only permissible in conjunction with the finest building materials was attempted in concrete, a material which though structurally excellent is artistically bastard, and in no way expresses the native luxuriance of
the tropics or the prevalent ease of life in the far East. This architectural procedure met with local dissatisfaction on every hand. The Filipinos were willing to be shown a new architecture if it could be richly decorated, but were not willing that their public buildings should be devoid of any embellishment whatsoever, little more, in fact, than warehouses.²⁹

Doane conversely felt that Fenhagen’s lavishly rendered capitol group inaugurated “a building architecture of style and quality,” a legacy that he intended to reinforce. Though Doane tacitly supported the transitional efforts of the new insular regime, the future of Fenhagen’s capitol group as a built project was, Doane feared, jeopardized by the promised decolonization of the Philippines. As a means of ensuring their construction, Doane’s energy was largely directed towards the development of an architectural style that he felt would not only appeal to the Filipinos, but also instill within them a lasting enthusiasm for American architecture, and implicitly a lasting loyalty to the United States. Describing his own policy as consulting architect Doane wrote

(His) policy… has been calculated to arouse a popular response to the cause of Architecture through the actual construction of a great many imposing Government edifices which, while in accord with conservative precedents, were also of a sufficiently popular character to excite general interest. Such a policy was furthermore designed to gain the confidence of the people and their officials in recommendations with respect to the more intangible problems of the future, that must be considered years in advance of their actual realization, by producing a current government architecture impressive enough, and it may even be said ostentatious enough, to arouse wide spread and general enthusiasm.³⁰

Doane’s emphasis on “style and quality” was an attempt to inject back into architecture the elements of personality and distinctiveness eliminated by a machine-produced architecture. Consequently, his contributions took form in the creation of new craft intensive methods of

³⁰ Ibid.
working in reinforced concrete. Doane, however had no interest in craft itself. He had no interest in turning back towards the morally grounded craft based architecture of pre-industrial modes of production. In other words, he was not interested, as a social reformer like John Ruskin was, in revolting against the dehumanizing machine. Had a machine been capable of efficiently producing unique pieces of architecture, with the warming qualities of hand-tooled finishes, there is no doubt Doane would have used it. A populist, not a humanist, Doane’s primary object was the receptive Filipino subject. Consequently, his policy changes were entirely driven by the communicative aspects of Architecture alone.

Figure 8.19 George Corner Fenhagen's rendering of proposed capitol building

Figure 8.20-8.21 (left) Capitol Group by George Corner Fenhagen and (right) Aerial Perspective by George Corner Fenhagen
Despite his interest in lavishness, Doane was still compelled to maintain an “accord with conservative precedents.” Doane’s architectural policies were an attempt to reconcile a richly decorated architecture with Parsons’ managerially driven construction techniques, a task at which he utterly failed. His prismatic synthetic stone, for example even for plain wall surfaces required two separate pours of two different classes of concrete, the bulk of which would be mixed with the standard aggregate, while the top three inches would be poured into a special mold in front of it. That finish would then be bush hammered on site. Meanwhile the ornamental parts would be manufactured in Manila, by a “special corps of fifty or sixty sculpturers (sic) and moulders.”

These laborers would work under the direct supervision of the Consulting Architect. Because the manufacture of the synthetic stone was analogous to the manufacture of terra cotta, Doane argued, “it is found possible to obtain without unreasonable expense an ornamentation of public buildings consistent with the standard of good taste exemplified in classic and renaissance architecture.” According to Doane, he had achieved the best of both worlds, having created a dignifying material and ornamental program that could be cast into convincing Neoclassical form, while maintaining reasonable costs to the Insular Government.

Doane would put his method to the test with the provincial capitol of Pangasinan, the last major building constructed during Doane’s tenure. In the end he succeeded in only one aspect. The capitol, though very popular amongst the Pangasinese public, was considered a costly failure, a managerial step backwards from the Administrative Order of Parsons’ University Hall and Paco Train Station. Despite Doane’s claims of reasonable cost, according to a report drafted after Doane’s departure, the capitol at Lingayen was “the costliest and most pretentious structure

\[31 \text{Ibid.}\]
of its kind,” and though Doane vaguely claimed, that “Government buildings have already been practically completed under this new policy,“32 in fact, Pangasinan’s capitol building was the only civic monument built according to what proved an exceedingly taxing method. It seems that, on account of the particularities of construction the Bureau was unable to find any contractors willing to bid on the project, and as result the district engineer, one Chas Dandors, was authorized to administer the construction of the building on his own.33 This arrangement allowed the Bureau to avail itself of “a gang of prisoners,” who were used to grade the site grounds. Meanwhile, the tooled exterior finish, which required “many experiments,” eventually required the acquisition of “a special gang of men trained for this work and used on this work only.” The columns, some of the largest so far executed on the islands also presented a new difficulty, more so because they were situated such that “the smallest variation would be detected.” Because of the amount of visible detail, a steel form was suggested, but no firm in Manila was willing to try it, and so a concrete form was created instead. A model column, carved to size was constructed and a negative sectional form was cast. The district engineer registered objections to the column’s construction on account of first cost, weight, cost of labor, and material waste. Proving a more successful experiment were the cast pieces of ornamental stone, all of which arrived to the site in good condition, and produced, according to the report “a dignified and decorative effect.”

32 Ibid.
Indeed, as Doane had hoped, the building, which overlooks the picturesque Lingayen Bay continues to enjoy popularity. Frequented as a local tourist destination, it is considered an architectural wonder of sorts. Though Doane left the Philippines before the completion of the project, he claimed that it had already “…inspired the pride and interest of the community in which (it was) located” and “…seem(ed) to demonstrate that the Filipino people (were) willing to forgo the shoddy gaudiness of Spanish standards for the more substantial and satisfying results of legitimate architecture.”

Unlike Parsons whose work was tied to discreet goals and what he called time and again ‘real’ material conditions, Doane pushed lofty, ideologically driven forms, arguing for an architecture that could achieve “spiritual uplift,” in his words:

There can be no true democracy without leadership, and there can be no leadership worthwhile in a democracy that is not in the interest of the people as a whole, those who seek spiritual uplift no less than those who desire only material benefits.

In other words, architecture would not only serve a particular programmatic function, but would also primarily serve a communicative function, a function that Doane equated with democracy itself, in his words:

Real democracy must provide for the masses what, until the advent of the nineteenth century was reserved principally for the “upper classes,” i.e., not only those things which protect the body, but above all those things which elevate the

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soul; and of these the fine arts have been, since the dawn of human intelligence, the greatest and true living expression.³⁵

Doane, of course thought little of the prison labor on which this “elevation of the soul” depended. He very simply equated ‘real democracy’ with access to an aestheticized national culture—an association that played an increasingly important legitimizing function as the United States prepared to transition the Philippines towards its ‘independence.’

Figure 8.22 Capital for Pangasinan capital building carved in remote workshop

Figure 8.23-8.24 Capitol Building, Pangasinan, designed by Parsons, developed and completed by Doane, 1917-8

Review, February 1919, pg. 31
Filipinization: The Education of a Native Élite and the Reconstruction of Architectural Genius

Francis Burton Harrison, who would serve as the Governor General for the duration of Woodrow Wilson’s presidency followed a policy that he termed “Filipinization,” or the purging of American functionaries from power and the handing over of the control of the bureaucracy to Filipinos. This was considered a first step in transitioning the Philippines towards independence. As a result of Filipinization, Doane would leave his post in 1918. From then on, the future of the capitol group as a built work would depend on the post-colonial popularity of the American building program, which would, at least in theory, eventually be subject to the powers of a popularly elected Philippine Government. The work of popularizing architecture would be left to an Architectural Division of a Bureau of Public Works staffed entirely by Filipinos, to be led by an élite corps of four American trained architects, most of them graduates of the pensionado program, and all of whom worked at the BPW under Parsons, Fenhagen and/or Doane. The pensionado program, initiated in 1903 by then Governor General Taft, granted scholarships for a small number of students to study in the United States (participating universities waived scholarship while the colonial government would pay for transportation and living expenses). Upon graduation pensionados were obligated to render service to the government. The main imperative of the program was to teach the students the inner workings of the U.S. government system, so that upon their return they would administer their own government after an American model.

The first architects to run the Bureau of Public Works were Tomas Bautista Mapúa, a graduate of Cornell and Juan Arellano y de Guzmán, a graduate of the University of
Pennsylvania who jointly took over as Supervising Architects following Doane’s departure.  

Though Arellano opened his first report with nothing but words of admiration for Doane and his artisanally inflected methods, the experience of building Pangasinan’s capitol, proved far too taxing on the resources of the BPW. Thus following Arellano’s seemingly obsequious, though perhaps only conciliatory praise of Doane, the architect shifts his tone, describing the architect’s “tendency to favor the erection of splendid and elaborate buildings,” as “untoward,” and susceptible of producing “unbecoming” results. Doane’s suggestions for a more decorated architecture were, Arellano claimed, furthermore driven by a mistaken perception that the Insular Treasury was flush with cash. Excusing Doane’s apparent confusion, Arellano explains that at the time of Doane’s departure, the Insular Treasury did in fact enjoy a significant surplus, an “abnormal” condition that was the result of the First World War, “…which in some way or another benefited these Islands.” Arellano continues by advising that the BPW proceed with restraint in order to defer to the “urgent needs of the people,” and “a more proper investment of public funds, (which included)… for example, the extension of the irrigation systems and the development of agriculture and of our rich natural resources.” Thus, the outlying provinces

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36 Arellano, though a product of the American Beaux Arts system, was not a pensionado. When he was only thirteen, Arellano dropped out of high school at Ateneo de Manila, following his father’s death to work as a draughtsman at the Bureau of Lands. When he was eighteen, Arellano traveled to the United States to study architecture. There he found work, first as one of the Filipino anthropological “specimens” put on display at the Jamestown Exposition, and then as a photograph colorist at the Commercial Museum in Philadelphia. An American couple took interest in him and sponsored classes at Philadelphia Academy of Art. In 1906, he enrolled at the Architectural School at Drexel University. Following his graduation he toured Europe, returning a year later to the United States where he enrolled in a Master’s program at the University of Pennsylvania. After returning to the Philippines to work at the Bureau of Public Works, he took leave in 1927 to take courses at the short-lived Beaux Arts Institute of Design in New York.

would never again see a capitol building like the one that sparkled on the shore of the Lingayen Gulf.

In the deliberation between a more decorative architecture and a more complete infrastructure we see two competing criteria for post-colonial legitimation, and though those criteria were not necessarily incompatible, both required the appropriation of a limited amount of funds. The Philippines as a nation at once had to prove to its post-colonial masters its functionality (by completing the archipelago-wide infrastructural project begun by the Americans) and its civilization (the development of its native genius—also, it should be said, a project defined by Americans). Its sovereignty could not be declared, as America had declared its sovereignty, but rather had to be earned and conferred, by proving it had achieved a state acceptable to its colonial master. The Philippines could not be released from American stewardship until it could prove, as a nation, its sufficient development in the form of the inadequately described criteria of a “stable government.”

Figure 8.25-8.26 Two competing criteria for post-colonial legitimation. (left) Arellano’s Legislative Building, (right) Headworks of San Miguel Irrigation Dam, Tarlac Province

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38 Arrellano himself, perhaps put it best, again from his report:

Architecture is one of the major fine arts, wide in its appeal and universally accepted as demonstrative of the character and temperament of the people, and expressive of its degree of civilization and culture.
Despite Arellano’s deference to what he considered the greater cause of Philippine infrastructure, his Beaux Arts education and those of his élite cohort at the BPW would not go to waste. The capitol group in Manila, which was of acknowledged symbolic importance would be an exception to a general policy of architectural austerity, as Arellano wrote:

It is reasonable and commendable that the construction of public buildings which the Government is at present either undertaking or contemplating, such as the Legislative Building, the Manila Post Office, the manila City Hall, the Supreme Court Building and the Capitol Buildings of first class provinces, be constructed of ample and magnificent ornamentation which will not only heighten their estimation, but at the same time will also tend to dignify and ennable the purpose of these edifices. The writer, however, does not find sufficient reasons to justify the excessive ornamentation found in some buildings… of those provinces which do not command sufficient resources to defray and meet the necessary expenses to be incurred in a pretentious structure.39

The work of the Architectural Division would be limited to the buildings of greatest symbolic importance. The capitol group, as the core of an ideological infrastructure—the dignified dress of a newly independent nation—would allow the native masters to fully express the nation’s indebtedness to its benevolent colonial masters. It was here that Arellano and Mapúa, together with pensionados Carlos Barreto (Drexel 1908) and Antonio Toledo (Ohio State, 1909) would demonstrate the full capabilities of a properly educated native. In the end this would be the key responsibility of the native masters, who would oversee, as Doane did at Pangasinan and as Arellano did at the Jones Bridge, the production of a deeply impressive and structurally superfluous program of applied arts. That is to say, that the native masters had been reduced to what Sigfried Giedion called “romantically sketching heroes,” those who, the architecture historian wrote, posed as artistic geniuses by “attach(ing) the most outrageous (eighteenth

century) facades” to the non loadbearing exterior walls of modern buildings. Though Giedion considered the sketcher an “embarrassment,” it would be wrong to think of this figure as useless. The crucial function of the romantic hero is perhaps most clear in the context of ‘post-colonial’ nation building, where the efficiency of architectural production is equally as important as the ideological value of the romantic hero. In the post-colony, Architecture (with a capital A) must materialize in the form of ‘artistic’ accomplishment—which would serve as important and legitimizing proof of the nation’s readiness for independence, at the same time it must prove that this artistic drive was not at odds with the production of a legitimizing efficiency. These goals were simultaneously achievable only through the use of ferroconcrete. In the Philippines this is realized through what turns out to be the almost identical ‘benevolent’ colonial forms and ‘competent’ native ones, both of which were made possible without the risks and costs of an exorbitant public investment.

All of the work of the native masters would be cast in the conventional concrete, and it would be as lavishly decorated, if not more so than Pangasinan’s glittering capitol, but without the added expense of Doane’s hand tooled finishes and sparkling marble aggregate. Instead, Arellano et. al. would ameliorate the ubiquitous finish with a cheap and ritual coating of whitewash—a similar lime based finish as used for the White House. It was a finish that was especially bright when applied to concrete’s exceptionally smooth surface, and at certain times of the day blinding under the archipelago’s intense tropical sun. In addition to these cost saving measures, Arellano also found ways to enrich interiors with minimal cost by forgoing expensive

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40 The White House was first made white with a lime-based whitewash in 1798, as a means of protecting the porous stone from freezing. Though this was meant as a temporary protective measure, the White House was never allowed to weather, as originally intended.
wood carving (a well developed, if not disappearing trade on the archipelago) in favor of plaster stucco, which could be executed on “a mechanical basis.” Despite these budget saving techniques, the Beaux-Arts architectural approached remained largely unchanged despite the “Filipinization” of the Architecture Bureau, a fact that reveals the largely symbolic, or even decorative function of an American trained native élite.

In fact the decorative function of the native was adopted as a literal practice under the leadership of Arellano, who decided that the new Legislative Building (originally designed to be the National Library) would be topped with a pediment occupied by native figures. Though talented sculptors did exist in the Philippines, carving the statuary out of stone was prohibitively expensive. The plaster trade, however was one unfamiliar to native masons. Thus, Arellano hired the German Otto Fischer-Credo to set up an atelier on the islands to train his small unit of native artisans. Fischer-Credo, who studied at Berlin’s Akademie der Kunste in Berlin and was a recent graduate the Royal Academy of Art in Paris, was at the beginning of his young career. He collaborated with Arellano on the design of the applied sculpture of the Jones Bridge and of the Legislative Building. One of their key tasks was to identify the physical attributes, dress, and regalia that would identify the figures as distinctly Filipino. Fischer-Credo dressed the native male figures in the bahag (Northern Philippine loincloth) and the female figures in the baro’t saya (the two piece dress typically worn by Filipina women). He also took care to model the ‘typical’ facial features of the Filipino.
Per Arellano’s direction, Fischer-Credo trained a small band of Filipino sculptors to execute, and mechanically reproduce the decorative program of the Legislative building. With the exception of a few marquee pieces, which occupied the personal attentions of Fischer-Credo, the majority of the decorative program would be highly repetitive. Despite its mechanized production, the Legislative building appeared, as intended, as an intensification of aesthetic efforts. This occupation of an American neoclassicism with the figures and symbols of the Philippine nation perfectly dovetailed with Wilson’s objective of Filipinization, which itself signaled the emergence of a new and global ‘post-colonial’ world order, one in which cultural, ethnic, and racialized identity were the symbolic currency of Wilsonian internationalist politics. At the League of Nations, identification with a nation literally earned one a seat at the table.

Because of the peculiarities of his task in the Philippines, the ability to construct the characteristics of national race became a sort of specialty for Fischer-Credo. Following his work in the Philippines, Fischer Credo would return to Germany where, as an official sculptor of the Third Reich, both Heinrich Himmler and Adolf Hitler sat for him. We can thus identify this artistic practice as one that worked to help consolidate the identification of race with nation. Whether in the Philippines or in Nazi Germany, Fischer-Credo’s role was to help construct a
racially based national mythology, one that inserted race (posited as the basis of national character) into the architectural framework of an ancient civilization.\textsuperscript{41}

**Filipinization: A Place in the World**

The intensification of aesthetic efforts— the occupation of an American neoclassicism with the figures and symbols of the Philippine nation was in keeping with Harrison and Wilson’s objective of Filipinization. That is to say, just as halls of the Legislature would be filled with representative Filipino bodies, so would it be equally important that those bodies be the object of symbolic representation. The outsides of the Legislature would be rendered to match its inner workings, now largely manned by Filipinos. Doane, was of course not the only American official to leave on account of Filipinization, In keeping with his promises, Wilson had appointed five Filipinos to the Philippine Commission of the Legislature, while Harrison undertook the rapid Filipinization of all civil service positions. As such, while in 1913 there had been 2,623 American and 6,363 Filipino officials; in 1921 there were 13,240 Filipino and 614 American administrators. While this would seem to signal the end the American colonization of the Philippines, Harrison’s administration actually marked, in many respects, an intensification of the colonial regime’s administrative efforts. The bulk of these administrative efforts would be aimed at the active development of the Philippine economy, an economy that Harrison pointed out was dangerously dependent upon foreign goods. The negative effects of this dependence were painfully revealed during the First World War when the price of coal rose from eleven pesos to nearly sixty pesos per ton, throwing Philippine industries into a major crisis. Similarly,

\textsuperscript{41} Though Fischer-Credo remains an obscure figure, perhaps his most well known work, a giant “Asiatic Head” is on permanent display on the campus of the University of British Columbia, in Vancouver.
during the war the purchase price for cement, most of which was procured from Japan was twice as much as it was in the United States, leading to an unprecedented budget crunch for the Bureau of Public Works. Harrison’s answer to this volatility was to place most major Philippine industries under some degree of government control, which would take on the form of a new type of administrative body, which Harrison referred to as government ‘auxiliaries.’ This, Harrison argued was done in the interests of both rationalizing, modernizing, and stabilizing the economy. Though the committees for many of these national industries would be, as he was obliged to point out, majority Filipino, they were, without exception, run by American managers.

Just one key example of these auxiliaries was the National Cement Company, established in 1920. According to Harrison, “it was long known that the materials for an excellent grade of cement existed in the Philippines, notably in the island of Cebú.” This was a venture never seriously pursued on account of the fact that importers of cement had made hefty profits off of the cement trade, an enterprise itself rendered profitable on account of what was until the war, the reliably low cost of Portland cement. Thus, under Harrison’s leadership, the Government decided to establish its own cement manufactory. The plan as put in place during Harrison’s

42These auxiliaries included the Government board in charge of managing the once English controlled Manila Railroad Company (renamed Philippine National Rail), the establishment of a Public Utility Commission, the establishment of a Sugar Central board (and the government financed purchase of modern sugar refining machinery), the establishment of a national coal company, national cement company, and national development company. Harrison pointed out that this was not necessarily a new phenomenon. From the beginning of the American civil government in the Philippines, the administration had managed,

Various utilities for which there was then offering no adequate private enterprise; thus, the Insular Government owned and operated and ice- and cold-storage plant; a printing office for official publications; various coast guard ships; the telegraph and inter-island cable systems, with a cable-ship for the repair of them; a purchasing agent and a Bureau of Supply for all the departments of the Government and, of course, a Bureau of Public Works.

administration involved luring a “prominent American cement man to put up the plan with government money, giving him the right to purchase at the end of a certain date, under a perpetual contract to furnish cement to the Government at cost plus ten per cent.” This private-public partnership was expected to save the government enough money per year to equal the whole amount of capital originally invested by it. Thus, Philippine architecture—the new symbols of Philippine nation would also be cast out of Philippine concrete, revealing, in part the systematic dimensions of Filipinization—a systematic order that did not preclude the generation of profits for American business.

Harrison’s new industrial auxiliaries would be financed by a mix of sources, they would in the main, however be capitalized by a set of new financial auxiliaries, namely the Philippine National Bank and the National Development Company. While public ownership and “interference” with the market flew in the face of American free market ideology, this manipulation of the colonial economy, was argued for on the grounds of the stabilization of the Philippine economy, a necessary precondition for its participation in Woodrow Wilson’s concerted effort to gather a new community of nations, a community that would be concretely represented by Wilson’s League of Nations. But, as the creation of the “auxiliaries” demonstrate, and as the (mostly Bolshevik) critics of the League would argue, the League was not league of people, but a league of great capitalist trusts.Indeed, Wilson’s transition of the Philippine government towards independence encompassed a set of activities focused on the development of an elite group of Filipino managers guided by the ‘technical’ expertise of American businessmen. Harrison acknowledges as much when he pointed out that in the Philippines, “little

opportunity existed until the recent industrial boom for the development of the ‘Captains of Industry’

Simply put, what Harrison envisioned as one of his core tasks was the creation of the conditions that would allow for the rise of Filipino captains of industry, ones who would be wholly prepared to join a holy alliance in a system of international capitalism. Herein lies the major difference between Forbes’ and Harrison’s respective strategies—while Forbes focused on stabilizing the colony as a means of attracting foreign capital to the islands, Harrison aimed at stabilizing capitalism as an international system. The new principles that would structure a transitional colonial government were embedded within Wilson’s larger internationalist scheme. Colonial powers, as outlined within the Fourteen Points would act “not as the owner of its colonies, but as a trustee for the interests of the society of nations.”

While Harrison and Wilson’s strategy was argued on the moral basis of helping to establish international peace, it was also primarily, a more economically and politically sustainable strategy than ‘direct colonial governance,’ especially as both pro independence native elites and socialist movements emerging within colonies across the globe were beginning to more forcefully challenge colonial sovereignty. What this ‘transition’ in fact enabled was, by and large, the maintenance of the status quo, with the exception of more Filipino faces at the political helm. In fact, it is remarkable that this new “trusteeship,” as described by Edward M. House, then acting as the American representative on the Supreme War Council at Versailles, seemed to be largely based upon how Americans viewed their own colonial activity and supposed intentions. According to

44 Ibid. pg. 250
45 From Colonel House’s (Edward M. House) “Interpretation of the Fourteen Points.” House’s “interpretation” was of vital significance because, as Harold G. Nicolson writes in his book Peacemaking, 1919, the submission of the ‘Interpretation’ of the Fourteen points (which spelled out the conditions of peace not in terms of principles, as Wilson had presented them, but in terms of actual policy) preceded their acceptance by the Associated Powers.
House what Wilson meant by the “interests of (colonial) populations” in his fifth point (the only point addressing colonial holdings), was that these populations,

…should not be militarized, that exploitation should be conducted on the principle of the ‘open door,’ and under the strictest regulation as to labor conditions, profits, and taxes, that a sanitary regime be maintained, that permanent improvements in the way of roads, etc., be made, that native organization and custom be respected, that the protecting authority be stable and experienced enough to thwart intrigue and corruption, that the [protecting] power have adequate resources in money and competent administrators to act successfully.

It is through this lens that we must read the occupation of the Legislature’s pediment with Filipino figures. The Filipinization of architecture (and I refer here both to the practice of architecture in addition to the buildings themselves) metonymically signaled the emergence of a new ‘post-colonial’ world order. While Harrison, unlike Forbes was not as directly involved in the construction of physical infrastructure of the islands, he was more involved in establishing an infrastructure on an international scale. He would be responsible for positioning the Philippines within an international system of ‘self-determined’ states, though the nature of that self-determination was still highly qualified, governed, and arbitrated by what were still imperial powers. It is notable here that in the Fourteen Points themselves Wilson does not make reference to colonies themselves, but to “colonial claims.” The new title, identity, and function of the imperial governments, meanwhile is, in Wilson’s words, was left “to be determined.” Despite the indeterminacy of the (post)imperial form or function (one that dramatically played out in the design competition for the League of Nations), what did become fixed was the idea that cultural, if not racialized identity became tightly bound to the idea of nation—whether post-imperial or post-colonial.
Reproducibility

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To the Architectural Profession:

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Thanks to the beneficent influence of “The White City” at Chicago, and to the increasing number of graduates of the Beaux Arts embarking in the profession, the classic revival in this country is now securely established. Not only is it no longer necessary for an architect to design anything. Every practical architect knows that if he ventured to deviate from the accepted forms of classic and Renaissance architecture, he would thereby injure his chances in competition… There is still, no doubt, employment for designers, properly so-called, in the “allied arts” of decoration. But in the detail of architectural work there is no longer any room for designers.¹

In a devastating spoof, disguised as commercial circular, published anonymously, in October 1897 issue of Architectural Record, Montgomery Schuyler described what he believed to be the greatest of many detrimental effects that were the outcome of Burnham’s White City—namely, the devolution of architecture into a system of mechanical reproduction, a condition that resulted in the apparent outmoding of the architect altogether.² This system, Schuyler argues found its origins at the Columbian Exposition, an event that resulted in the division of the architectural

² Though published anonymously, Schuyler’s identity was later revealed.
vocation into a business on the one hand and a superficially decorative occupation on the other. Classical and Renaissance forms, Schuyler observes were especially susceptible to this division.

While Schuyler’s disenchantment with architecture may seem inevitably tied to the fact of technological reproducibility, it was not so for the architecture historian Sigfried Giedion (and his follower Walter Benjamin), or for a burgeoning European Avant Garde, who saw in the destruction of old ways of making new and transformative possibilities. In Le Corbusier’s Cité Fruges, a housing complex built for workers of a sugar factory outside of Bordeaux in 1929, Giedion celebrated what he believed to be a brave embrace of the modern condition, arguing that the project presented a system of standardization that “permit(ted) the greatest variety of applications while at the same time requiring but one order from the factory.”

This was an effect produced by exploiting basic, undecorated geometries and an open cellular logic. In the Philippines we see what was by then a typical conflict between those who exalted the advantages of factory production and those who lamented the expanding role of standardization, in what was still conventionally viewed as an artistic or humanist endeavor.

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3 The Pessac Housing complex was also known as the Quartiers Frugés, named after Henri Frugés, a wealthy industrialist who commissioned the project after reading Corbusier’s Vers Une Architecture. Frugés asked for a housing complex to be built for his workers utilizing a totally industrialized means of construction. Sigfried Giedion, Building in France, Building in Iron, Building in Ferroconcrete, Santa Monica: Getty Center for the History of Art and the Humanities, 1995. Pg. 170.
Standardization: A Tool For Nation Building

At the same time that Parsons was perfecting his semi-standardized Mission Style for what he considered to be the most important programs in the capital, he was also devising a system of totally standardized plans to be distributed across the archipelago. This included plans for municipal markets, schools, and prisons of all sizes, “from one room, to twenty rooms, according to requirements.” Materials, forms, windows, doors, blackboards, etc., were all standardized and made uniform. Parsons’ all-inclusive school kits were deployed in packages that included not only building materials but chalkboards, chalk and textbooks, which were sent, along with freshly trained teachers to even the most remote of the archipelago’s provinces. These plans, were finalized in 1910, clearing the path for the fast tracked construction of an archipelago wide school system. While other forms of standardization were treated with suspicion, the construction of these programs were not. Their relatively simple treatment was largely perceived as appropriate, as it enabled the fulfillment of what were increasingly viewed as basic and urgent needs. It is here that both Parsons’ ability and modern sensibilities became most evident. In short, Parsons understood the requirements not only of building, but of nation building, a project that went far beyond discussions of style to imagine the total social and cultural transformation of the entire archipelago. It is with these projects that on account of their programmatic aims,

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5 Education was perhaps one of the least assailable imperatives of the American colonial program, and thus served a central function in terms of proving the benevolence of the American regime. On this point David Prescott Barrows, superintendent of schools for Manila under Taft from 1900-1903 and general superintendent of education for the Islands until 1910, was especially astute: The most pressing problems of the twentieth century are those occasioned by racial contact and collision. Over the large part of the earth, the white man is master of the political fortunes of the backward and dependent peoples of other races, but it is doubtful if he can longer generally maintain his superior position except by generous concessions. In David Prescott Barrows “What May Be Expected from Philippine Education” in The Journal of Race Development Vol. 1, No. 2 (October 1910), pp. 156-168.
systematic execution, simplicity of form, and even utopian ambition that Parsons approached a sort of proto-modernism.

The wide distribution of these standardized programs affected immediate and widespread change. The sanitary and standardized markets allowed for the systematic distribution and sale of both local and foreign goods to even the most remote provinces, while the simple schoolhouses, which were built by the hundreds, and required only a minimal amount of supervision, enabled the Insular Government to jumpstart an ambitious education program, which imposed an archipelago-wide English based education system in just one generation. Parsons’ focus on education and commercial programs reflected Forbes’ central goals as a colonial administrator and eventually as governor general, and remain a clear testament to Forbes’ belief in construction as a driver of permanent and impactful change.

Figure 9.1-9.2 (left) Plans for a one room and three room school (right) Plan for an eight room school
Parsons’ standardized plans specified not only initial construction, but included instructions on how one would go about expanding them according to their needs, without “destroying the symmetry of the building,” an aesthetic requirement that one could read as a sort of remote form of managerial control, or as a residue of Parsons’ Beaux Arts predilections. In any case, what this points to is the essential open-endedness of his building system. This is important to understand, as it allows one to make a certain distinction between standardization and more rote forms of mechanical reproduction that would succeed it. It also helps to explain
why that while Parsons’ standardized plans for schools and markets were widely praised, this would not be the case for all forms of standardization.

**Neoclassicism in the Age of its Reproducibility**

![Image](image_url)

Figure 9.9 The Capital Group ca. 1942 In the Foreground is the Department of Finance, across the circle is the Department of Agriculture, and behind that is the Legislative Building

Ornament was not the only aspect of architecture affected by the advent of mechanical reproduction. As Burnham had discovered at the Columbian Exposition, the Beaux Arts plan itself was a particularly economical form. Not only were the repetitive patterns and elements of Neoclassical architecture ideal targets for industrial reproducibility, but the mirrored symmetry of the formal layout was also easily achieved through mechanical means of duplication. Thus, in the Philippines we see several sets of twinned structures in George Corner Fenhagen’s capitol group plan, an almost perfectly mirrored symmetry that would achieve the dual goal of delivering an honorific formality, while employing a repetitive construction that was eminently more affordable.
The buildings for the Bureau of Agriculture and the Bureau of Finance, for example were exact duplicates of one another. Designed by Antonio Toledo, they sat on opposite sides of Agrifina circle, suggesting in their stare down the equivalent importance of Agriculture and Finance to the Philippine economy.\(^6\) By any measure the twin Bureaus were excellent examples of Beaux Arts design, in that they, like all Beaux Arts architecture demonstrate how, even the most opulent appearing structures, are totally consonant with strategies of efficiency. Especially here, where efficiency and reproducibility strike a pose as clever architectural phrasing. On their surface, the buildings of the capital group still manage to approximate a sort of classical grandeur.\(^7\).

Parsons, unlike Doane, Fenhagen or the pensionados did not attempt to suppress the expression of concrete’s convenience; he was exceptional amongst the supervising architects in his unabashed dedication to the goal of efficiency. The apparent exception to this was the provincial buildings that housed the local seats of government. As A.N. Rebori wrote, it was in the provincial government buildings that, “we see conspicuously the hand of the competent architect,” where attention to “general proportion, exactness of detail, and handling of the material… shows (Parsons’) ability to full advantage.” Rebori continues, Parsons treats each

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\(^6\) The word Agrifina is a portmanteau (Agriculture + Finance)
\(^7\) The work of what Sigfried Giedion calls “the romantically sketching hero,” a figure, the historian writes “became an embarrassment” in the wake of ferroconcrete’s prevalence. Unlike the Eiffel tower or the Transbordeur bridge in Marseille, “thin net(s) of iron spanning the air” where “one encounters the fundamental aesthetic experience of today’s building,” there is no de facto direct experience of reinforced concrete, because, as Giedion wrote, buildings built in reinforced concrete could “attach the most outrageous facades,” however, despite this, the “actual control, despite possible exterior mutilation, belonged to the engineer. And behind the engineer: industrialized building production.”Thus, Giedion resolves that revealing some sort of structural truth of reinforced concrete would be the underpinning of his critical estimations of modern architecture. See Sigried Giedion, *Building in France, Building in Iron, Building in Ferroconcrete*. Los Angeles: Getty Center for the History of Art and the Humanities, 1995. Pg. 151.
building “as a distinct problem… characteristic of its use and location.” Beyond Parsons’ skilled siting and massing, the provincial buildings pictured in the article look remarkably similar to each other, all built out of reinforced concrete in the same semi-standard idiom that he developed first in the capital. It was, however judging by Rebori’s language, manifestly obvious that it was important to emphasize Parsons’ artistic abilities, he was, beyond being a part of an “efficient machine,” also playing an equally important role as a living form of cultural capital.

Following Parsons’ departure there were still dozens of provincial capitol buildings, and even more municipal buildings (city halls) to be built, and all had to be built in haste as material proof of a progressing and “stable government.” Stability was the primary and nebulous criteria for eventual sovereignty as outlined by the Jones Law. As a result, the provincial capitol buildings, which had—even under Parsons been designed individually, eventually gave way to total standardization, a decision detailed in Mapúa’s first report as the supervising architect of the BPW.

The supervising architect is by law required to approve all Government buildings, Insular, provincial, and municipal, whether large or small, throughout the Archipelago. This brings to his office a tremendous volume of work covering a wide range of important and unimportant projects. At the present time numerous small town projects are necessarily abandoned to the mercy of local “maestros de obras,” or local contractors, for want of efficient designers in the architectural division to properly attend them.

The system of standardizing public buildings is therefore necessarily the only policy under present economic conditions. For every schoolhouse that is designed there is the demand for the simultaneous construction of several others: and the same case occurs with the market buildings, municipal buildings, provincial buildings, etc. Standardization is therefore the only practical solution under these conditions. But it is hoped that as the Division of Architecture grows and becomes able to properly handle the work of designing all public buildings, the tendency toward standardization will be abandoned.8

8 Mapúa’s statement was actually a direct quote from Doane’s final report, though Doane spent more time arguing against the demoralizing dangers of standardization. From Doane’s Final Report:
The provincial capitol buildings of Negros Oriental, Marinduque and Western Samar were all built using exactly the same plan. In addition to this the capitol buildings for the provinces of Leyte and Batangas were slightly more elaborate versions of the original; Leyte having a longer colonnade and Batangas possessing a slightly more articulated pediment and additional wings. The municipal buildings in Tabaco in Albay, Magalona in Negros Oriental, Victorias in Negros Oriental, Davao in Davao del Sur, Concepcion in Romblon, and Lopez in Quezon were also all exactly the same. This architectural reproduction, which was at first resisted on account of a heavily reconstructed notion of architectural genius was eventually implemented as the ultimate in efficient building solutions. The “tendency towards standardization” as Mapúa put it was, in fact Parsons’ most influential (though least celebrated) legacy. Mapúa’s hope that this “tendency” be abandoned, would in fact be a wish against one of ferroconcrete’s most powerful agencies—its reproducibility. As the leaders of the Architectural Division no doubt realized, a small minority of the inhabitants of Sorsogon had reason to visit the province of Negros Oriental or Western Samar. An aesthetic experience of concrete, as a technology of reproduction, was not a collective experience on the scale of a national public. Doane feared that a lack of individuality would have a demoralizing effect on the Filipino people:

Just as a person has individuality and individual taste in the matter of clothes and adornments, just so communities have a collective individuality and desire individuality in their public works. Instances can be recalled where a municipality, for example, has lost entire interest in a town hall project simply because it was ascertained that it was to be, when completed, identical to one in an adjacent town. Public spirit can be marshaled to improve public works in a manner to give the community distinctness, but becomes apathetic when required to construct architectural replicas. Standardization of Government buildings in the United States has during the last two years been seriously considered by Congress, but has met with the unqualified opposition of the architectural profession… While standardization of architecture may be necessary during
formative periods such as now exists in the Philippine Islands, as a policy to be perpetuated, it is never desirable.\(^9\)

In the absence of actual democracy, Doane argues for the value of authenticity, but the Filipinos would be denied even that Trojan horse and would receive instead dozens of identical civic buildings—here the image of democracy itself is allowed to appear as industrially produced. Though difficult to verify, it is likely that as Doane argued, that standardization did have a demoralizing effect on the natives. The archipelago, after all had a three hundred year old tradition of church building—coercive and attractive sources of civic and religious pride, pride attached in some degree to the uniqueness and relative grandeur of each structure.

In his famous essay “The Work of Art in the Age of its Technological Reproducibility,” Walter Benjamin wrote “Even the most perfect reproduction of a work of art is lacking in one element: its presence in time and space, its unique existence at the place where it happens to be.” In the case of standardized architecture there is no original, and all ‘reproductions’ exist in a unique time and space. The tests that Benjamin suggests as barometers of authenticity—chemical and physical analyses—tests of patina, weather and wear, also fail those attempting to discern the ‘originality’ of reproduced architecture. They are simulacra that are also insistently real.

When Parsons introduced systems of standardization, he very purposefully excluded the provincial capitols and other local seats of government from the same treatment. Though these buildings would also be built according to new standards of efficiency, it was important to keep up the dignifying appearance of architectural effort. It is surprising then that it was only after Doane’s attempts to reinvest in architectural specificity that total standardization takes hold. But

this has always been the promise of the Beaux Arts—beauty was not opposed to industry, the Beaux Arts system was one if not born out of an industrial logic, developed within it. Under Doane and the pensionados, the local seats of government, which were to function as the ennobling icons of the public sphere, would be totally standardized—surpassing even Parsons’ efforts to engineer efficiency. It is in these buildings that an abstract referent stands in the place of an absent original. In these buildings, a semblance of authenticity is displaced onto a vague stylistic allusion to American architecture, which materializes in the colony as little more than the corrupted replica of the myth of an American democracy.

![Image of identical provincial capitol buildings](image)

Figure 9.10-9.14 Identical Provincial Capitol Buildings (top to bottom, left to right) the Provincial capitol buildings of Sorsogon in Sorsogon City, Negros Oriental in Dumaguete City, Western Samar in Catbalogan (with added wings) and Marinduque in Boac
Figure 9.15-9.18 Identical municipal buildings (top to bottom, left to right) Tabaco Municipal Building (Albay), Municipal Building in Concepcion (Romblon), Municipal Hall Victorias (Negros Occidental), Magalona (Negros Oriental), Davao City (Davao), also Lopez in Quezon
**Strength**

One of the core arguments of this dissertation is that concrete’s properties and agencies played a role in the configuration and reconfiguration of America’s global territory. This chapter, the final quality to be addressed, makes an argument along the same lines, though here a territorial reorganization is discussed as a response, not to an agency of concrete, but rather to its ultimate limits. Strength is perhaps the first quality that comes to mind when one thinks of concrete, a sentiment underscored by the fact that the first large scale use of American produced Portland Cement was in the construction of a new system of American naval fortifications, a program that had been largely neglected in the ‘isolationist’ years following the Civil War, a fact that had become the source of some anxiety in the years leading up to the Spanish American War. Amidst the internal turmoil of reconstruction, the progress of technology never ceased. Maritime travel times were decreasing, imperial war fleets were growing, submarine technologies were improving, the power of ballistics was multiplying—exponentially, and the advent of flight seemed all but inevitable. In what was largely viewed as a delayed answer to these conditions, in 1885 Grover Cleveland charged his Secretary of War, William Crowinshield Endicott with heading a new Board of Fortifications. In response to its grim findings, the Board recommended a massive $127 million construction program for a series of new state-of-the-art forts for 29 locations along the US coastlines. For the first time, reinforced concrete’s ability to withstand large gravitational loads would be engineered to resist the force of modern ballistics. After acquiring the archipelago following its victory in the Spanish American War, this program was extended to the Philippines, where a chain of formidable island forts were built to protect the Untied States’ new Far Eastern capital.
The Concrete Battleship

More commonly referred to as the “Concrete Battleship,” Fort Drum was unique in the development of United States coastal fortifications. It was one of a chain of island forts built across the entrance of Manila Bay to defend the harbor from naval attack. Construction began in 1909 by razing the tiny and barren island of El Fraile to the low-water mark. Over the next ten years a multi-deck concrete island was built to resemble a battleship—complete with steel plated sides, formed into a dreadnaught shape, and topped with a caged mast.\(^1\) Its main artillery feature was a set of 14 inch guns housed in superimposed armored turrets. The interior of the fort held a

\(^1\) Fort Drum was also outfitted in an almost identical fashion to a ship, complete with barracks, a mess room, cold storage, an ice plant, officer’s quarters, laundry, a machine shop, an engine room, large ammunitions stores, a small hospital and a plotting room.
large engine room, powder and shell rooms, storerooms and tankage, plotting rooms, and accommodations for 300 personnel. Despite its impressive appearance, the concrete battleship was obsolete long before its completion. Ballistics had already won the battle against reinforced concrete.

In February of 1910, on a sandbar off of the coast of New Jersey the U.S. military pointed their new 12” Mark 8 naval guns at a 20’ thick wall of concrete, reinforced with heavy steel beams. Confirming the mathematical calculations of the penetrative power of the guns, the wall was successfully pierced. Just nine months earlier, nine thousand miles away, at the entrance to Manila Bay, construction began on Fort Drum, which was only one of the ‘state of the art’ harbor defenses the United States was building in order to protect the Manila Harbor. However, as the ballistics vs. concrete tests exposed, the ‘state of the art’ was an increasingly fragile condition. In fact, the even more powerful 14” guns that would be emplaced in Fort Drum itself, upon its near completion only underscored the obsolescence of Fort Drum’s defensive walls.

Either unsure of how to change course, or unwilling to scrap the tremendous efforts already placed into the fort, the government went ahead with its plan to fortify the island, ultimately and rather arbitrarily settling on a wall thickness of 28 feet. But, as the engineers who redesigned Fort Drum understood fully well, it was a desperate and futile attempt to outpace the persistent advance of ballistic power. Despite the failed test at Sandy Hook, the construction of the concrete forts in both the United States and in the Philippines pressed onwards. It would not be long however, before a completely different technology altogether would completely outmode

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2 These defense position also included the islands of Corregidor (Fort Mills), El Caballo Island (Fort Hughes), Carabao Island (Fort Frank) and El Grande Island (Fort Wint), which sat several hundred miles north in the entrance to Subic Bay.
the concrete battleship. In fact, Fort Drum was completed in the very same year that the United also signed its first contract with the Wright Brothers to build its first military aircraft, an event that would eventually render the massive investment in Manila’s Harbor defense system all but worthless. A more immediate source of anxiety was the Japanese imperial army’s interest in military aviation. Following World War I, Japan purchased large numbers of surplus military aircraft from France and Britain. By 1920 Japan was producing close to a dozen military aircraft under various licenses, and in that same year employed military aircraft in combat roles during the Soviet Intervention. By 1928 it had produced its own designs with the aid of hired German engineers. Japan’s invasion of Manchuria in 1931 contributed to an already heightened state of fear. Americans stationed in Manila Harbor, an American capital that lay just about 1800 miles southwest of Japan was without an air-raid shelter of any class or kind. It was a situation ominously described in 1932 by one Paschal N. Strong, then a young lieutenant in the Army Corps of Engineers.3

I suspect that the Department Commander had sleepless nights as he considered the bird’s eye view of a fortress designed when the Wright brothers first flapped their wings. I remember especially our only two really long-range guns, Smith Number One and Smith Number Two. Sited in the middle of a circular concrete blanket, they resembled from the air two inviting bull’s eyes… And nowhere in the three square miles of the “Rock” (as Corregidor was called) was there an air-raid shelter where even a rabbit could hide.4

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3 It was not until the Franklin Roosevelt’s presidency that the American military started to pay any serious attention to aviation technology. The United States paid so little attention to aviation technology, in fact that the small American aviation corps that participated in WWI flew French planes. American military investment, up until Franklin Roosevelt was largely focused on the naval arms race, a race halted due to the conditions set by the Washington Naval Treaty, which the United States initiated following the general spirit of non-interventionism following the massive military build ups of Theodore Roosevelt, Taft and Wilson.

4 Paschal N. Strong “The Lean Years” in The Military Engineer, May–June 1949, pg. 179-81
Strong recorded his observations as he readied Corregidor, the largest island in Manila’s chain of Harbor forts, for what seemed an inevitable aerial attack from Japan. Strong had been ordered to the Philippines to construct a series of tunnels by burrowing into Corregidor’s volcanic rock. Corregidor, appropriately nicknamed “The Rock,” would serve as an air raid shelter for the sizable American military presence stationed on the island. What Strong fails to mention in his

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5 Corregidor, the largest island in Manila Bay received the bulk of Taft and post-Taft fortification efforts. The US Army designated the island Fort Mills, and it became the main post headquarters for the Harbor Defenses of Manila Bay. Corregidor provided the infrastructure for the construction of the other island forts including Fort Drum and the Caballo (Fort Hughes) and Carabao (Fort Frank) islands. It was fully
portentous description is that just as Manila Harbor’s military installments took on the appearance of targets from the air, so too would the city of Manila itself—a city that lay less than 20 nautical miles from Corregidor. Even so, almost nothing was done to protect the city of Manila, very little in fact could be done. It was hoped that in the interest of protecting the world’s civilian populations, most of the leaders of industrialized nations would follow new conventions of international laws of war. These were laws that by definition did not protect military positions, a fact that forced industrialized nations to abruptly shift strategies of coastal defense (the aim of which was to create a protective barrier around cities) to the creation and protection of “military objectives,” the newly defined legal targets under new international conventions governing aerial bombardment. In terms of the international laws of war, what

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The statements of the law governing the bombardment of cities and towns are well known. The Brussels Conference of 1874 laid down the rule that “open towns” which were “not defended” must not be attacked or bombarded. Article 25 of the Hague Regulations of 1907 abandoned the phrase “open town” but forbade “the attack of bombardment by any means whatever, of towns, villages, habitations, or buildings, which are not defended.” The phrase “by any means whatever” was inserted expressly to cover bombing from the air. Article 1 of the Hague Convention IX laid down a similar rule for naval warfare, with the important addition in Article 2 of a rule permitting the bombardment by naval forces of certain specified “military objectives”. R.Y. Jennings “Open Towns” in *British Year Book of International Law*, 1945, Pg. 258-9.

7 Article 52(2) of the 1977 Additional Protocol I provides: In so far as objects are concerned, military objectives are limited to those objects which by their nature, location, purpose or use make an effective contribution to military action and whose total or partial destruction, capture or neutralization, in the circumstances ruling at the time, offers a definite military advantage.

8 In the case of war waged from the land, advancing lines of an army can take possession of an undefended place and deny the enemy the use of its military resources, while in the case of a naval attack, a commander can only deny such resources by destroying them with shell fire. This difference
changed was that the old rules governing land warfare specified the places that *may not* be bombarded (i.e. undefended areas), while modern naval and air warfare rules specify the places that *may* be bombarded, areas defined by the still murky standards of international law as “military objectives.” These new legal conditions of aerial warfare divided the globe into a field of civilian life on the one hand and militarized territories of ‘fair game’ on the other.

Figure 10.8-10.9 (top left) Plan Malinta Tunnel System (right) rudimentary hospital located inside Malinta Tunnel.

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applies with even greater force to the circumstances of aerial warfare. The shift from the occupation and seizure of military resources towards the strategic destruction of military targets prompted a total revision of the laws of war, mostly structured around the protection of civilian populations. The main difference being that laws of land warfare specified places that could *not* be bombarded—cities and towns that were militarily undefended, while the new modern maritime and air warfare rules specify the places that *may* be bombarded—places identified as “military objectives.” These changes in the law, were an attempt not only to protect civilian lives, but to prevent what was increasingly seen as the the potential destruction of the city as such, the only plausible defense of which would be the fragile, and hurriedly revised international laws of war, written in expectation of the inevitable though still hypothetical event of aerial warfare.
As fair targets, unprotected by the moral cover of civilian life, military objectives mostly relied on techniques of invisibility—camouflage and underground construction were thus the primary strategies of defense. Under the new panoptic regime of aerial warfare, Fort Drum’s 28’ thick walls provided little compensation for its conspicuous appearance, and predictably the fort faced punishing tests of strength during Japanese and American aerial attack (when it was occupied by the Japanese). The layout of Malinta’s tunnels however, under the cover of several hundred feet of earth, were undiscernible from the air. Only its visible entrance was vulnerable. Designed with aerial warfare in mind, the Malinta Tunnel, unlike coastal defense installations, and forts as a form in general, was not intended to protect the territory immediately behind its walls—as a proper “military objective” it was built only to protect itself. This general transformation in territorial military defense strategy meant that the strength of a nation’s ‘defensive’ capabilities would henceforth be calculated as a function of the strength of its defensive structures, but rather as a function of distance, time, and the sophistication of telecommunications systems. Indicative

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9 To this end the tunnels served its intended function. While the island was under siege it housed over 4000 occupants including American service members, leading politicians, and MacArthur’s own family. His three year old son, servicemen recalled, marched up and down the tunnels humming “the Battle Hymn of the Republic.” The tunnels also protected five and a half tons of gold, 150 tons of silver pesos, and millions in U.S. bills (Roosevelt ordered that the banks be emptied).
of this new state of affairs, Corregidor itself was for a time the home of Station CAST, the United States Navy’s main signals monitoring and cryptographic intelligence fleet radio unit. In other words, defense strategies would focus not on reinforcing local geologies, but on calculating various increasingly mediated relationships and distances between global geographies. These were conditions that prefigured not only the Philippines’ lasting importance to the United States military, as its primary military foothold in the Pacific, but also the shape and distribution of the United States’ global military empire in the aftermath of World War II—an elaborate network of military bases that continue to provide the means of maintaining U.S. military dominance across the globe. In light of this, both Fort Drum and the Malinta Tunnel system, though fascinating and elaborate spatial and material relics were little more than stop gap answers to the revolutionary introduction of communications technologies and aerial warfare. The future of American defense lay not in its brute material strength, but in its lightness, speed, intelligence, agility and omnipresence.

Figure 10.11-10.12 (left) Station CAST (right) Intercept operators and analysts inside Corregidor

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10 Broadly stated, RMA (Revolution in Military Affairs) theory claims that in certain periods of the history of mankind, there were new military doctrines, strategies, tactics and technologies which led to an irrevocable change in the conduct of warfare.
The Open City: Human Sacrifice and The Concrete Theatre of War

In order to spare the Metropolitan area from ravages of attack, either by air or ground, Manila is hereby declared an open city without the characteristics of a military objective. In order that no excuse may be given for possible mistake, the American high commissioner, the Commonwealth government and all combatant military installations will be withdrawn from its environs as rapidly as possible. The Municipal government will continue to function with its police powers, reinforced by constabulary troops, so that the normal protection of life and property may be preserved. Citizens are requested to maintain obedience to constituted authorities and continue the normal processes of business.

General Douglas MacArthur

The outmoding of Manila Bay’s coastal defense system meant that it, like every other strategically important city was at the mercy of aerial attack. It was, or so MacArthur claimed, in
the interest of saving the city of Manila and its people from aerial bombardment that he issued a communiqué declaring Manila an “open city” on Christmas Day of 1941.¹¹ It seemed, at first, that the strategy was effective. With the exception of limited damage wrought by the initial Japanese air raids and a limited number of strategic American bombings in 1945—both of which were aimed at the still poorly defined category of military objectives, Manila suffered relatively minor damage as the result of aerial bombardment, this was mostly on account of the open city declaration on the one hand, and to MacArthur’s restriction on American aerial bombardment in the effort to retake Manila.¹² Nevertheless, by the end of the month long Battle of Manila, the city was almost completely destroyed, while its population of one million people was literally decimated.¹³ These losses are most remarkable because it was a population devastated and an allied city destroyed, for the most part by allied forces.¹⁴

Many military historians argue that the Battle of Manila was not only catastrophic in terms of lives lost and property damaged, but also strategically unnecessary.¹⁵ Ultimately the

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¹¹ In war, in the event of the imminent capture of a city, the government/military structure of the nation that controls the city will sometimes declare it an open city, thus announcing that it has abandoned all defensive efforts. The attacking armies of the opposing military will then be expected not to bomb or otherwise attack the city but simply march in. The concept aims at protecting the city’s historic landmarks and resident civilians from an unnecessary battle.

¹² In a letter written to Krueger of February 16, 1945, MacArthur wrote:

> The use of air on a part of a city occupied by a friendly and allied population is unthinkable. The inaccuracy of this type of bombardment would result beyond question in the death of thousands of innocent civilians. It is not believed moreover that this would appreciably lower our own casualty rate although it would unquestionably hasten the conclusion of the operations. For these reasons I do not approve the use of air bombardment on the Intramuros district.

¹³ The civilian death toll estimated to be between 100,000 and 240,000 people.

¹⁴ Of course several allied cities, the most notable perhaps being Paris, suffered damage as the result of Allied liberation efforts, but in the interest of saving the cities themselves the allies exercised relative restraint and respect for a city’s civilian population and cultural heritage when liberating the various cities of Europe.

¹⁵ In fact the official orders, laid down by General Tomoyuki Yamashita, (commander in chief of Japanese army forces in the Philippines), were to evacuate the city and destroy all bridges and other vital installations as soon as any large American forces appeared. Yamashita decided that it would be more effective to retreat to Baguio in an attempt to hold off U.S. and Filipino forces in northern Luzon,
stated justification for engaging with Japanese forces were the widely reported Japanese atrocities. The extent to which the Japanese controlled the population was questionable however, as the occupying forces numbered less than 20,000 Japanese soldiers, a force that supposedly held a population approaching one million citizens hostage, most of whom were hostile towards the Japanese military.\textsuperscript{16} What these numbers illustrate is that the fight for the capital was more irresistible than it was tactically prudent.\textsuperscript{17} As American military forces understood, fighting in an urban environment offered distinct advantages to a weaker defending force. The attacking army is forced out into the open on streets while the defending forces take cover in the shelter of buildings, from which they also enjoy superior visibility. This condition applied with special force in an urban environment like Manila’s—the core of which was constructed almost entirely in reinforced concrete buildings. In many ways Manila was a sort of readymade military stronghold—the entire city radiating outwards from the centermost citadel of Intramuros, with its 40 foot thick walls. Surrounding Intramuros was Burnham’s park (Intramuros’ filled in moat), a large, clear field that stood several stories below the wall, a condition that precluded anything but

\textsuperscript{16} Compare this, for example to Paris under the Nazis. While the population of Paris fluctuated wildly between one million and 2.5 million people, the occupying forces held steady at about 300,000 troops for the duration of the occupation.

\textsuperscript{17} In fact, the center of action should have pulled Americans northwards and away from the capital where General Tomoyuki Yamashita (commander in chief of Japanese Army forces in the Philippines) had retreated for a ‘last stand’ battle before the imminent American invasion of Japan.
direct attack at close range. The recently completed Beaux Arts buildings of the capitol group, all built out of fireproof and earthquake resistant reinforced concrete added the most formidable ring of defense. The rest of the city required only minor modifications, which included cutting down the palm trees that lined the picturesque Dewey Boulevard to form a runway and landing strip, the scattering of pill boxes, mines, and barricades across Burnham’s wide boulevards, and dispersing troops in an outermost band of reinforcements throughout the city, each of which selected cover in reinforced concrete buildings—churches, private homes, factories, departments stores, and dozens of Parsons’ standardized schools. Typically, the Japanese soldiers prepared for exterior assault with sandbagged gun emplacements, built at all of the buildings’ windows and doors. If the Americans could get past the building’s exterior they would find themselves drawn into a far more dangerous interior—mazes of booby trapped corridors and rooms—a tangle of barricades, barbed wire and pillboxes. These techniques, deployed in every defended structure were most sophisticated in the buildings of the capitol group, in the city’s center. By the end of preparations Manila, despite its large civilian population had been transformed in its entirety into a well defended and giant military objective.\footnote{Though well defended the Japanese forces were not well armed. They only had one tank and very limited artillery, as they were for the most part cut off by supply lines.}
A Technological Narcissism: The Capture and Destruction of Manila

On February 11, 1945 three American cavalries had assembled outside of the city limits, completing its encirclement of Manila. The stated objective was to capture Manila as intact as possible, while protecting the large fraction of Manila’s civilian population, most of which still
inhabited the city. They had made a crucial tactical error, however. In surrounding the city they left Sanji without a route of retreat, a strategic blunder that all but ensured the total destruction of the city. The Americans pressed on.

The initial plan of attack employed infantry divisions using only small arms, as the American forces soon found out, or perhaps already knew, small arms were all but useless in fighting against soldiers safely ensconced within several layers of armored protection. It was claimed by the American commanding generals that the use of heavier artillery was a direct response to “alarming casualty rates,” in the early stages of the battle, and that the use of greater firepower was part and parcel of a policy to avoid further American casualties. The final tallies, however showed that with a casualty rate of 3%, the Battle of Manila had the lowest casualty ratio of any of the major battles in the Pacific Theatre during World War II. Whatever the reasoning, the invading forces employed a massive artillery preparation of such destructive force that it caused the military historian Robert Ross Smith to wonder how “civilian lives could be saved by this type of preparation as opposed to aerial bombardment.” The net result, he concluded, “would be the same: Manila would be practically razed.”

Thus, the battle began in earnest only once both sides had been virtually sealed within strong carapaces of American manufacture—the Japanese military in concrete buildings and the American military in mobile steel tanks. The Battle of Manila was thus not just a battle between human forces (if war ever

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20 The development of armored warfare was an attempt to break the tactical, operational and strategic stalemate introduced by a line of defensive infantry armed with machine guns, which in an open field of battle was known as trench warfare. Under the conditions of trench warfare, any advance was impossibly slow and resulted in massive casualties. The development of the tank returned maneuvering techniques to warfare, seen as the only way to protect soldiers from small arms fire as they moved into enemy territory. In the Battle of Manila, the artillery preparation was calibrated not to penetrate bodies, but to destroy formidable concrete structures.
was just a battle between human forces), but a battle between modern war machines and buildings of strong industrial manufacture. The bodies of civilians, and the destruction of the city itself were in the end, realized as the collateral damage of industrial/mechanized warfare.²¹

![Figure 10.17 The Capture of Manila](image)

As Americans approached the main line of Japanese resistance, it became apparent that in order to capture the city, the Army would need to destroy all of the defended buildings that lay in the path of advancing troops, and “all pretense at saving Manila’s buildings would have to be given up.”²² As Robert S. Beightler, general in charge of the 37th infantry division would put it “(t)o me, the loss of a single American life to save a building was unthinkable.”²³ Still, there were restrictions placed on directing artillery fire against structures such as churches and hospitals that

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²¹ The Japanese had only one tank attached to their naval forces—an American M3 Light Tank, captured in 1942, which they abandoned in the battle to capture the Manila Hotel. The American forces however was led by four tank battalions. Led by the 44th Tank Battalion, nicknamed the “Hellcats,” the 640th Tank Destroyer Battalion of 1st Cavalry Division and the 754th Tank Battalion and 711th Tank Battalion of the 37th

were known to contain large numbers of civilians, but even these restrictions would be ignored, for “often it could not be learned until too late that a specific building held civilians.”24 The problem was that the city that the Americans had built—durable by design, had under urban warfare conditions, been transformed into impressive instruments of defense. The civic, municipal and other institutional buildings, were, after all built out of the very same stuff as Manila’s formidable harbor defenses. One by one each building was placed under heavy artillery fire. Reinforced concrete walls were subjected to hours of direct tank fire until enough breaches in the exterior were made to invade the building—a method of assault intended to “tear the building asunder.”25 Even after buildings were destroyed they had to be occupied. The strength of the buildings’ reinforcement meant that buildings leaned or bent rather than completely collapsing (as would be the case with stone masonry), such a condition was still useful to the enemy, which could hide, in some instances more effectively in the relatively static ruins. This was a major difference between buildings of standard masonry construction and buildings of reinforced concrete construction, a condition that would thicken the Japanese defensive line, and prevent the orderly advance of the American forces.

25 *Triumph in the Philippines*. Pg. 264
When Americans finally reached Intramuros they exposed thousands of civilians trapped within its enclosure to the indiscriminate path of flamethrowers and a hailstorm of heavy artillery crossfire. In the end, the decimation (here used in the literal sense of the term) of Manila’s population was largely the outcome of what was in some ways a narcissistic battle between two American technologies. As Smith noted, “the reduction of government buildings represented the triumph of (American artillery, tanks, and tank destroyers) over modern, American-built, reinforced concrete structures… The subsequent reduction of the Spanish walls and stone buildings must have been,” Ross wrote “in some ways anticlimactical to the troops involved.”

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26 Japanese Defense of Cities and Exemplified by the Battle For Manila, pg. 23 It is unknown what percentage of these deaths were due to the widely reported Japanese atrocities, and how many were caught in the hailstorm of American bullets. What is certain is that it would have been difficult for the Japanese forces to execute the scale of the massacre it was claimed they were responsible for. The atrocities reported included 21 killed in the shelling of Santo Tomas (following the liberation), 50 bayonetted inside the Spanish Consulate and 59 bayonetted Tabacalera factory. These atrocities, however horrific represented a small fraction of the between 100,000-240,000 civilian casualties that were the result of the “liberation of Manila.”

27 Triumph in the Philippines. Pg. 291
Of the Allied capitals, only Warsaw suffered more. Not only were the completed buildings of the capital group destroyed but so were large sections of Intramuros, dozens of centuries old churches, the infrastructure responsible for seventy percent of the utilities, 75 percent of the factories, 80 percent of the southern residential district and Manila’s entire business district. What set Warsaw and Manila apart, however was the fact that Manila was an allied city destroyed, mostly at the hands of the allies.

Figure 10.19 (left) American B24 Attack on Japanese Occupied Manila targeting piers of the Port of Manila (1944). Though these were commercial piers in peacetime, they were a crucial point in the supply line during the Japanese occupation and were thus were placed under the legal category of a military objective.

Figure 10.20-10.21 M18 Hellcat outside the Manila City Hall, firing rounds at Japanese positions in the Legislative Building, one of the last three buildings occupied by Japanese soldier

28 William Manchester, *American Caesar*
The Expendable City and a Rerganization for Empire

In a cable to Washington sent on January 28, 1942 Manuel Quezon, the first nationally elected President of the transitional Philippine Commonwealth pointed out to FDR that the war then being fought on Philippine soil was “not of our making,” suggesting that while the Americans enjoyed their own domestic security, and while it prioritized the defense of their European allies, it left the Philippines, a nation that had become a primary target of Japanese aggression almost solely on account of America’s now nearly 50 year occupation of the archipelago, in a naked and vulnerable position. Quezon was even more explicit after hearing broadcasts from the United States indicating FDR’s “Europe-first strategy, after which he burst out, “Que demonio, how typically American to writhe in anguish at the fate of a distant cousin while a daughter is being raped in the back room.”²⁹ Quezon’s cable to Roosevelt was sent a little more than three full years before the devastating Battle of Manila would realize his deepest

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fears. Quezon had sent his cable to FDR in a last ditch effort to save his capital city, which in American eyes had become little more than a strategic position.

It was an important object lesson for the United States, not only because Manila’s destruction presented an expensive liability, but because Manila’s strategic positioning had been proven invaluable during the course of the Pacific War. The Philippines’ acceptance of “The Military Bases Agreement” was done under the duress of the archipelago’s post-war reconstruction. Its terms, much like the farcically asymmetrical Bell Trade Agreement (discussed in the next chapter) was not subject to negotiation. In both cases, as the former Philippine ambassador to the United States, Eduardo Romualdez pointed out, “provisions were dictated by one party, (and) accepted with great reluctance by the other,” and he continued, “Beyond the expressions of ‘mutuality’ in the (agreement’s) preamble… there is very little in the text itself that would indicate mutuality of interests. It is a one-way street.” The bases agreement provided the United States with extensive military facilities for a renewable term of 99 years. The direct precedent for this “one way” agreement was Franklin Roosevelt’s “destroyers-for-bases” deal with Great Britain, an agreement negotiated between two colonial powers that granted the United States 99-year leases to installations in British colonies worldwide. In both cases including the nominally ‘independent’ Philippines the desires of the colonized were never considered. As a result of destroyers-for-bases deal, and as a part of the greater allied efforts, by 1945 the US military was building base facilities at a rate of 112 per month, topping out at 2,000 sites by the war’s end. It was thusly how the United States came to both occupy and expand a collapsing British Empire.

The two major facilities in the Philippines, Clark Air Base and Subic Naval Base, were immense—the largest U.S. military facilities outside of the U.S. Clark covered 130,000 acres,
larger than the entire island of Granada, while Subic, roughly three times the size of Washington D.C. included the entire city of Olangapo within its jurisdiction. The agreement also allowed the United States to recruit Filipino volunteers into the U.S. Armed Forces while prohibiting the Philippines from granting base rights to any other country. Furthermore it placed no restrictions on the uses to which the United States could put the bases, nor the types of weapons that it could deploy or store there. And so it was that at the ‘end’ of its colonial engagement with the Philippines the United States would begin anew, though it would not begin from scratch. Fort Stotsenberg (as Clark Air Base used to be called) had been in continuous use by the U.S. military since 1902. In 1919 it was officially set aside for the aviation section of the Signal Corps, and in the 1930s it was slated to be the site on which the United States would train an ‘independent’ Philippine army, a plan tabled on the eve of World War II when it was converted into an aircraft staging grounds in preparation for war with Japan.

A brand new concrete infrastructure was laid out—not only its twenty thousand feet of heavy concrete runways but large neighborhoods, schools, a zoo, theatres, a parade ground, the world’s largest BX and housing for over 15,000 people. At its height Clark Airbase was arguably the most urbanized military facility in history, and it was indisputably the largest American military base overseas. It was, in other words not a withdrawal of minimization of American colonial activity, but rather yet another reorganization.

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30 This ultimately proved to be a major point of contention as the U.S., without receiving approval from the Philippine government secretly stored nuclear weapons on its bases, only one of the reasons that the Philippines chose not renew the bases agreement after the expiration of the 25 year term in 1991. 31 Famously most of these aircraft were destroyed in an air raid nine hours after the Pearl Harbor attack.
Figure 10.23-10.24 (top) The 1947 Plan for Clark Air Base, (bottom) Clark Air Base site in 1939
While American military colonialism would be an especially ambitious project in the Philippines, it was only a part of a global strategy that would eventually bloom into a largely invisible extraterritorial empire that encircles the entire planet. At present there are roughly 800 American military bases around the world, a constantly shifting global infrastructure of security, today charged with maintaining and enforcing an American led World Order—activity ideologically presented as the protection of the ‘free world.’ The strategic importance of the bases was emphasized during the Vietnam war when the now closed Clark Air Force and Subic Naval Bases, served as an essential staging grounds for the failed U.S. military effort. This archipelago of military objectives, which Chalmers Johnson has called America’s “empire of bases” both displaces and anticipates any violence directed towards the United States’ territorial mass—while protecting American interests—a thinly spread network that captures the globe.\(^{32}\)

\[\text{Figure 10.25 Global military bases (2007) Original Source: Department of Defense “Base Structure Report}}\]

Conclusion: Independence or Reorganization?

Figure 11.1 Uncle Sam presenting the Philippine Flag to Miss Philippines

The photo above, dated August 13, 1938, was taken on the 40th anniversary of “Occupation Day,” an official holiday that celebrated the Philippines’ “fortunate conquest” by marking the date of Manila’s capture by U.S. troops.1 Per tradition, Miss Philippines, that year, Iluminada Mojica Tuason, solemnly received a Philippine flag, gifted to her from Uncle Sam (who was on that day an unnamed Filipino dressed in star covered tails and boldly striped trousers, his brown skin partially covered by a curly white wig and a beard of tight curls). That same day, Manuel

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1 The celebration of “Occupation Day” marked the traditional end to the Manila Carnival, an event that had been held annually since 1908 to celebrate harmonious U.S. Philippine relations, and to showcase the Philippines’ commercial, industrial and agricultural progress. The carnival’s original organizer was an American colonial named Captain Langhorne who asked the Philippine Assembly for 50,000 pesos to set up something akin to the 1904 St. Louis World’s Exposition’s human zoo, in which would be displayed (primarily for the benefit of Americans) exhibits of “half-naked” Igorot tribesmen and other native groups. Seeing greater potential in the idea, Governor General James Smith transformed the planned freak show into a ritual celebrating the Philippine-American progress in the islands. Then Secretary of Commerce and Police, William Cameron Forbes took charge of the preparation, closely modelling it after the Columbian Exposition. His first move was to ask for 15,000 instead of 50,000 from the Assembly. He planned to raise another 15,000 by private subscription campaigns such as the Carnival Queen contest.
Quezon delivered the speech “Filipino Gratitude to the United States,” a speech in which he reflected on the symbolic meaning of the American flag and on the benefits of American occupation, which he characterized in the speech as “the greatest event of modern civilization in the Orient.” His remarkable speech is quoted here at length:

As I saw in that late afternoon of August 13, 1898, the sun set in the clouds that crown Mariveles with purple and gold, in the gathering darkness of the Pacific, the royal flag of Spain came down and for the first time in my life I saw the Stars and Stripes run to the fore… Little did I know in my immaturity that I was beholding the birth of a new ideology in Asia—an ideology based upon what was then a strange, new conception in this part of the world—a conception that government is, “of the people, by the people, and for the people”—a conception based upon the magic words—liberty and freedom.

[…] Woven into the very warp and woof of the Constitution were the principles of the Declaration of Independence. But now, instead of being an announcement of a philosophy of government, they were enacted into immutable law. In its wise distribution of governmental powers and the establishment of effective checks and balances, in so far as human sagacity can control human nature, it shut the gates of power against the intrusion of tyranny, corruption, and selfish ambition. Creating a strong central government, adequate to the common defense, to the securing of domestic tranquility and to the fulfillment of international obligations, it taught the world that democracy may be made safe for mankind.

[…] All this and more was written on that flag as it unfurled above the Pasig before my uncomprehending eyes … Under its folds, peace and prosperity have come to this favored land. Materially we have developed education, sanitation, and agricultural and industrial enterprises. Security and happiness, freedom from financial pressure, and a higher mode of life—all are ours. A new and progressive outlook upon the modern problems of life is in the making. All of this we owe to that starry flag and to the great people it represents. When it finally comes down from Santiago in 1946 it will find somewhere in its folds the grateful hearts of a people—a new and vibrant republic facing with optimistic hope its rising dawn. No words can adequately thank you, great American people.

Quezon’s dripping rhetoric, which might seem anathema for an independence seeking “nationalist,” was a reflection of a process of Philippine ‘nation-building’ constructed around a politics of American recognition—a conditional sovereignty granted on exclusively American
terms. Quezon here delivers a perfect, if sanguine performance announcing his total subscription to this system, one that pressured elected Filipino officials to demonstrate their competence on two registers. On the one hand Filipinos had to prove that they understood the meaning and significance of freedom under a ‘true’ democracy by swearing allegiance not only to the United States but to an American ideology (which Quezon does here by describing the ingenious—in fact infallible structure of the American government), and on the other they were required to exhibit a commitment to material progress, modernity and a “higher mode of life,” (which Quezon expresses in the form of a gratitude for the gifts of “education, sanitation and agricultural and industrial enterprise”). These two registers represented an ‘independence’ increasingly articulated as two separate forms or goals—political independence and economic independence.

Despite Quezon’s flawless performance, independence—whatever that meant under the terms of the two irreconcilable halves of a “colonial-democracy,” was never a guarantee.

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2 My analysis of the history of representative government in the Philippines is heavily informed by Paul D. Kramer's *The Blood of Government*.

3 The Jones Bill, passed in 1916 contained a non legally binding preamble stating that “It has always been the purpose of the people of the United States to withdraw their sovereignty over the Philippine Islands and recognize their independence as soon as a stable government can be established therein.” The first formal promise, providing a timeline and outlining a process that would lead to “complete independence” was part and parcel of the Tydings McDuffie Act, officially known as the Philippine Independence Act, signed into law by Franklin D. Roosevelt on March 24, 1934. Though pro-independence Filipinos had been fighting for national sovereignty since the very beginning of American colonial rule (and even before under the Spanish), it was only once an alliance of American xenophobes and American sugar interests (mostly based in Hawaii) threw their weight behind the Tydings McDuffie Act that the United States made its first formal promise to grant the Philippines its independence. Tellingly, the act set a quota of 50 Filipino immigrants per year into the United States, specified that all Filipinos then living in the United States be reclassified as aliens for the purposes of immigration to the U.S., and required that sugar imported into the United States would be taxable at the same rates of duty paid upon like articles imported from foreign countries. These conditions aside, the very nature of this ‘independence’ was itself questionable. The Act opened, for example with a set of “Mandatory Provisions” for the yet to be drafted Philippine Constitution, which should conform to the (general) “Character of Constitutions,” (outlined as a part of the Act). Furthermore, it was a requirement that the President of the United States certify that the Philippine constitution conform with these provisions, all of which were authored entirely by representatives of the United States, namely Senator Millard Tydings of
uncertainty lay not in some definite standard (whether ‘political’ or ‘economic’) that Filipinos might hypothetically be able to achieve—it was certain that the Americans could always change such a standard. What the Americans were uncertain of was the optimal arrangement through which they could secure the greatest benefits for the United States at the lowest possible price. Though colonial rule was subject to countless changes, and though administrations had wildly varying opinions on how the colony should be run, financed, pacified, controlled, stabilized, modernized, enriched, and exploited, things continued to be built, and much of it was built in concrete. That is to say despite what essentially amounted to an ad hoc colonial strategy, one thing remained consistent—the United States continued to build—everything from the highly decorated symbols of democracy, to robust military installations, to sanitary infrastructures, school systems, bridges, and roads. They never stopped building, and the material with which they built made its own promise to remain, even when faced with crises of governance, colonial mismanagement, natural disaster, fire, vermin, economic fluctuation, or germ, concrete delivered permanent change, though those changes were not always the ones planned or desired. Thus though it should seem appropriate, at this point to shift our attention to the long process of ‘decolonization,’ we should not view it as a sort of unravelling of the colonial structure, we must first view decolonization as a set of constructive practices—as construction in the Philippines did in fact continue, unabated though now as part and parcel of the decolonization process—a process of nation-building, one that despite the promise of a new beginning, fits squarely within a continuously evolving history of concrete colonialism.

Maryland and John McDuffie of Alabama, after whom the bill was named. Even under the stringent conditions of the Tydings McDuffie Act, Franklin D. Roosevelt recommended Congress in 1938 that while the United States should ‘keep its promise’ by granting ‘political’ independence to the Philippines, that it should maintain economic control over the Philippines until 1961.
Concrete’s Last Act: Reconstruction

Figure 11.2-11.4 Before and After Rehabilitation, from the Report of the Philippine War Damage Commission.

By the time the United States granted political independence to the Philippines, there was little left to be grateful for. Much of the concrete nation that the United States had built had been spectacularly obliterated by its own destructive hand. Never before had the Philippines looked more like a wretched—and expensive liability. Besides, the Philippines, even despite the massive amount of government spending was not nearly as important to the United States as China or Japan (in 1939 the United States had only $160,000,000 in American capital invested in the Philippines—only a third of the amount of the American investment in Japan). Thus, even as the United States made an elaborate show of condemning Japanese brutality, avarice, and imperial
ambition, they would invest far larger amounts of money into stimulating its economy than it would spend on the Philippines.4

Manila’s postwar destruction marked a disorienting ‘end’ to America’s colonial rule. On July 4, 1946, amidst the tangled wreckage of war, arrangements were made for a lavish celebration. The Luneta was cleared of debris, white tablecloths were set for a state dinner at Malacañang (the Presidential Palace and one of the few buildings largely spared from shell fire), and fireworks were shot from the base of Intramuros’ ruins. In the largest, most public gathering, in front of a towering plywood propylaea, on a rostrum shaped to represent the new ship of state, U.S.

4 The United States provided roughly $3 billion towards the effort of Japanese reconstruction compared to the $620 million in rehabilitation funds given to the Philippines. Post War American investments in Japan and Europe were largely to thank for their respective postwar “economic miracles.”
Ambassador Paul McNutt gently lowered the American flag as Philippine President Manual Roxas raised the flag of the Philippine Republic.5

Figure 11.6-11.7 (top left) A photo from Life Magazine in late 1946 showing rusting war machinery in the foreground and the reconstruction of the Legislative Building in the background (top right) the Legislative Building in the midst of its reconstruction. The sign reads “Rehabilitation project aided by the United States of America through the United States-Philippine War Damage Commission”

5 It was of course no coincidence that the United States granted the Philippines their independence on July 4th. The Filipinos, however had already grown accustomed to celebrating that day, as it had been an official holiday since 1902, one in which America’s colonial subjects celebrated not American independence, but perversely, their own. On July 4, 1902, Theodore Roosevelt delivered presidential proclamation number 483, by which he declared the end of the Philippine insurrection, and with it the granting of general amnesty to all of those who participated in the insurrection against the United States. It was a premature declaration as many parts of the archipelago were still actively resisting American rule, as acknowledged in Theodore Roosevelt’s declaration which did not extend amnesty to members of the Moro tribes, to which, he wrote “this proclamation does not apply.” It was not only in the Moro provinces, however that guerilla warfare continued. The declaration of the pacification presented Taft with a conceptual problem. If the insurrection was over, there could no longer be insurrectos, a situation that obliged him to re-characterize the on-going native rebellion(s). From 1902 onwards the reports issued from the Philippine Commission to the Department of War would use the term “ladrone” (Spanish for thief) to refer to those who were previously understood to be enemy combatants. This re-classification of insurrectos from “enemies under the laws of war” to “merely... violators of the local law" marked an important transformation in American thought—a crisis facing a ‘revolutionary government' that would be amended by the naturalization of principled or civilized (though still violent) opposition or revolt as a distinctly American trait or norm. As the economist, first Secretary of the Federal Reserve Board, and first president of the Philippine National Bank Henry Parker Willis observed, casualties inflicted during 1903 were scarcely less than those experienced at the height of the insurrection, and thus “what is called, ladronism represents a condition of dissatisfaction in the public mind which can only be described as sporadic rebellion or insurrection. In Henry Parker Willis Our Philippine Problem: A Study of American Colonial Policy New York: Henry Holt and Co., 1905. Pg. 126.
If the images that documented the event seemed jubilant enough, it was only because photographers were able to crop out the charred remains of a city in total ruin. Manila looked exactly as it did in the images above, which were taken around the same time as the independence ceremony. In the aftermath of war hundreds of thousands of Filipino survivors were left jobless, orphaned and homeless, and were forced to improvise shelters in the ruins of America’s ‘liberation effort.’ In the end it would not matter that more Filipinos died and more material damage was wrought as the result of so called “friendly fire,” and the resilient strength of concrete itself, what would be remembered was the ‘savage’ brutality of Japanese atrocities—the harrowing, and vividly detailed accounts of children and women bayoneted by a small and desperate force of Japanese soldiers.

Soon hundreds of contractors, most of them American would land in the Philippines in order to rapidly rebuild the capital. In the end the quality that mattered the most was speed—a speed that would allow the United States to extricate itself from its “Philippines Problem” as quickly and efficiently as possible. 6 The spectacle of reconstruction amidst the ruins served as a convincing advertisement of American benevolence. As reconstruction rapidly proceeded, thousands of American soldiers were stationed in the Philippines to maintain order, provide food and other social and emergency services. Soothing their own trauma in the aftermath of a brutal war, many young men indulged Filipino children with chocolate and candy; throwing shiny, cellophane wrapped scraps of humanity off the back of their trucks. As a child these were the stories my mother, father, uncles and aunts told of Americans. It is the explanation they offer for

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their own passionate and extraordinary American patriotism, and it is a lasting impression that aligns sharply with the popular image of America in the Philippines.

Officially aid came in the form of the Philippine Rehabilitation Act, authored by Senator Millard Tydings.\textsuperscript{7} The act, written after the Maryland Senator’s visit to the Philippines to survey postwar conditions recommended that $100 million (an arbitrary number in no way connected to an actual assessment of material damage) be set aside to reconstruct the Philippines and that further aid be given through loans. Despite Tydings’ call to more strictly limit funds, the Rehabilitation Act ultimately provided $620 million in economic aid to the Philippines. Funds would be disbursed by the Philippine War Damage Commission, which established priorities in the funds’ adjudication and settlement.\textsuperscript{8} Hospitals and dispensaries were placed first, followed by waterworks, then by schools, national government buildings, provincial and municipal buildings and finally government corporations. As far as the construction of government buildings was concerned the goal was “for the nation to be fully operational in the shortest possible time.” Thus, the Commission decided that each award should be sufficient for the construction of reconstruction of “a useful, usable unit.”\textsuperscript{9} Amidst the smoking ruins of total devastation, Ralph Harrington Doane’s appeal to beauty’s necessity to a democracy seemed

\textsuperscript{7} Senator Tydings was also the author of the Tydings-McDuffie Act, officially the Philippine Independence Act, (Public Law 73-127 enacted March 24, 1934) which was a US federal law that provided for self government of the Philippines and for Filipino independence from the United States after a period of ten years. It also established strict limitations on Filipino immigration.

\textsuperscript{8} Though this may seem like a generous figure, the Marshall Plan provides a good point of comparison (though there were marked differences in terms of the nature of the disbursement of funds). A total of $13 billion was poured into the economies of Western Europe. France received 4.6 billion dollars as a result of the Marshall Plan and 6.6 billion was disbursed to the United Kingdom. These were allocations made roughly on a per capita basis, that works out to roughly $34/person in the Philippines and $115/person in France. As was the case with the Marshall Plan, a large amount of money was disburse
irrelevant and even frivolous.\textsuperscript{10} Though the funds were mostly administered by the Bureau of Public Works, much of the work was executed by private contractors and builders, many of them American. The speed of reconstruction of both public and private buildings resulted in the substandard reconstruction of much of the capital city. Even the buildings that were supposed to be the crowning achievement of American democratic tutelage would be largely stripped of the architectural detail so vigorously defended by Doane. Much of the decorative Beaux Arts features of Arellano’s Legislative building or Toledo’s Department of Agricultural and Finance buildings would not be replaced, resulting in buildings more reminiscent of the austerity of Parsons’ Administrative Order.

![Figure 11.8-11.9](image.png)

The photos above are both of Arellano’s Legislative Building. The image on the left was taken just before the bombing of Pearl Harbor, and America’s official entry into World War II. The image on the right, taken relatively recently is of the reconstructed edifice. To the casual observer, they look almost identical—a distinction difficult to make on account of the fact that

the referent no longer exists. Otto Fischer’s pediment group was largely spared from major
damage—this was not an altogether miraculous occurrence, in fact one may even say that it was
by design, as Manila’s patterns of destruction were different from those of Europe’s and Japan’s
aerially bombed cities. Most of Manila’s buildings, including the Legislative building were shot
at, at close range and the Americans were able to essentially work around the pediment. It was-as
if the men behind the guns were making their own aesthetic choices. Still, the elaborate
cartouche that crowned the balcony was gone, as were the sentry figures that disguised its
awkward corners. The open air gallery of Corinthian columns was replaced by a shallow façade
of pilasters. The lacy cornices, so carefully modeled and so efficiently reproduced, were even
despite the relative ease of reproduction, also omitted. Reconstruction heavily relied on a gestalt
image of the city. The idea was to capture general impressions and global effects while ignoring
finer details and fussy art. One building was of course far cheaper and far quicker to build than
the other. Indeed, few would notice a difference, what mattered more was that amidst the
massive destruction and sense of devastation, a piece of the city thought forever lost suddenly
reappeared—phoenix like.

The funds promised by The Rehabilitation Act, the funds eventually used in the
reconstruction of Manila, were contingent upon the Philippines’ acceptance of the Bell Trade
Act, an act that laid out the economic conditions under which the United States would grant the
Philippines its ‘independence.’ On the whole these policies were a clear instance of the
neocolonial/neoliberal agenda that would come to characterize the general approach of American
foreign relations. In effect the Bell Trade Act engineered the Philippines’ lasting economic
dependence on the United States. Authored by Missouri Congressman C. Jasper Bell, it created a
system of preferential tariffs (that would undermine the control over imports and exports by the
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Philippine government), it pegged the Philippine peso at the overvalued rate of two pesos to one dollar, it obligated the Philippine government to not place restrictions on currency transfers to the United States (i.e. corporations who earned profits made in the Philippines were under no obligation to reinvest any amount of those profits), it required the perpetuation of prewar free trade relations until 1954, it required that the Philippines not export the products that might “come into substantial competition” with U.S. made goods, but perhaps most significantly it granted Americans and American corporations ‘equal rights’ or “parity” with the Philippine citizens in any future development of natural resources and in the operation of public utilities—a clause that required an amendment to the 1935 Philippine Constitution, which had limited the right to exploit resources in the public domain to Philippine citizens or to corporations in which they controlled 60% of the capital. Revealing the one-sidedness of this so-called ‘parity,’ no similar rights were given to Philippine citizens in the United States.

The Bell Trade Act was passed on July 2 (a decidedly unsymbolic date), just two days before the United States granted independence to the Philippines on July 4th. The Act outraged Filipino nationalists, and even Sergio Osmeña, the reliably pro-American president at the time commented that the act was “a curtailment of Philippine sovereignty, (a) virtual nullification of Philippine Independence.”

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11 After this date, tariffs would be imposed in both countries at an annual increasing rate of 5% of the existing duty. Full duties would not be in force until 1974.
12 The Philippine Constitution called for the extension of the Wilson Era policy of Filipinization (which applied only to civil service positions) to all businesses and corporations operating within the Philippines (Section 1, Article 13 of the 1935 Constitution). American citizens and corporations were protected during colonial times, and for the duration of the Commonwealth period, a condition that Americans moved to extend as the key provision of the Bell Trade Act. Though these ‘parity’ rights were supposed to be officially terminated on July 4, 1974, the Marcos Administration substituted other laws which perpetuated advantages to foreign investors (predominantly American), over Filipino enterprises, with their comparatively meager capitalization.
13 Further ‘parity’ was achieved in the Laurel-Langley Agreement of 1955, a trade act which gave American citizens and businesses the ability to own 100 percent of companies in any area of the
United States exploited the opportunity of the public’s disorientation. Thus, though the physical reconstruction of Manila would represent the most conspicuous change in the aftermath of the Battle of Manila, it also may have been the least significant. The twin Finance and Agricultural Buildings, the Legislative Building, the reconstructed buildings of the University of the Philippines, the Post Office, etc., were like a small army of Trojan horses bearing an inscrutable host of economic reforms and structural adjustments that would herald the Philippines’ conversion into an American neo-colony. Despite being poor imitations of the originals, the reconstructed buildings of the capitol group stand the test of time as visible and physical evidence of American ‘benevolence.’

14 On every reconstructed government edifice a bronze plaque was prominently placed, which read “Rebuilt with the aid of the people of the United States of America under the Philippine Rehabilitation Act of 1946.”

Figure 11.10 A bronze plaque placed on “all principal Philippine schools and government buildings reconstructed with United States aid” from Report of the Philippine War Damage Commission

What changed after 1945 is that architecture, once a symbol of what the United States owed to the Philippines (the deferred ‘gift’ of democracy in exchange for a provisional term of colonial exploitation), became instead a symbol of what the Philippines owed to the United States, for its magnanimity and efficient services. Philippine national identity would be forever bound to this concrete affirmation of indebtedness to the United States. Rehabilitation allowed the United economy, a condition that explains why U.S. corporations control most foreign investments in the Philippines.

14 Filipinos were given a one-year period required in which to file private property claims. During that period a total of 1,250,000 claims were filed, with a claimed value of $1.225 billion. Of that number, nearly a million were for $500 or less; approximately 247,000 were from $500-$25,000; more than 1,600 were from $25,000 to $50,000; those from $50,000 to $250,000 totaled 1,360; and there were 320 for more than $25
States government to monumentalize its status as the liberator of the Philippines, in hopes of effectively stamping out the memory of the last fifty years of colonial exploitation, while offering cheap ideological cover for the construction of more elusive forms of a perpetually expanding American Empire. Neither Manila’s destruction nor the apparent revocation of American colonial sovereignty would signal the end of a colonial relationship, but rather merely the dawn of a different set of strategies, which entered, hidden inside the hollow monuments presented as a final gift. What appeared to be a peace offering was in fact, a new imperial strategy. “Rehabilitation” then, should not only be thought of in terms of Manila’s physical reconstruction, but in terms of a major and broad reorganization of American colonialism, which would develop in the form of an alliance that in many ways was barely distinguishable from the sometimes tense, often awkward, though mostly friendly alliance formed between the American Commission and the Philippine Assembly. The greatest difference was that as a neo-colonial authority, the United States bore few responsibilities, but enjoyed a barely diminished power, while the Philippines as a neo-colony could and would continue to be exploited, though under new conditions of national ‘sovereignty’—without any formal rights to economic or political redress. In the age of ‘classical’ colonialism, imperial power had to at least justify its activities, actions, and experiments abroad, in the age of neocolonialism it bares little of that responsibility. So while the structures were set in place for the evacuation of the archipelago’s earned profits, natural resources, skilled labor, and most accomplished professionals, it is the weakened neo-colony that must bare the shame of what is presented to history and to an international community as the failure of an inherently corrupt nation and a hopelessly disorganized state.

Americans believed the concrete itself presented a universally applicable and efficient means of developing natural resources and commercial opportunities while providing an answer
to a wide spectrum of problems including adverse environmental conditions, labor issues, deficiencies in health, hygiene, sanitation, and education, weaknesses in military defense, political questions of allegiance and loyalty, and what were perceived to be the natives’ irrational social arrangements, and counterproductive cultural practices. Though concrete exerted its effects on all of these realms, and though change was a given, many of the changes were neither desirable nor planned—an ideal and static state of stability and productivity would never, and could never be achieved, even if the Americans were able to articulate it. As Americans emplaced more and more concrete, conditions mutated—maintenance was expensive, profitable returns were irregular, conflict in the Moro provinces was ongoing, the struggle for independence had become a national embarrassment, the concrete itself had failed, poverty continued to increase, disease though somewhat abated could be controlled by other means, all of which revealed that concrete was not prove the magical balm that American colonialists had hoped it would be.

It was essential that the War Damage Commission presented its work as something completely new—as charity. It was an opportunity to renegotiate the terms of its benevolence. It was a means of cleansing itself from the history of exploitation that had bogged the colonial venture from the start. The distinct advantage of rehabilitation was that it was a finite engagement—with a forseeable end and a controllable budget. The United States’ lack of commitment to the actual rehabilitation of the Philippines was confirmed in 1962, when the U.S. Congress turned down a $73 million package providing additional compensation for war damages. This was a move that prompted then president Diosdado Macapagal to change Philippine Independence Day to June 12th—to refer back to Emilio Aguinaldo’s proclamation of independence from Spain, which ironically was also the moment that Aguinaldo acquiesced to
put the nation “under the protection of the powerful and humanitarian North American nation.” Nevertheless, it was a piece of political brinkmanship that asserted the country’s right to compensation for war damages, even as it signaled its continuing dependence on U.S. Aid.\textsuperscript{15}

\begin{figure}
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\caption{Figure 11.11-11.12 From the Semiannual Report of the Philippines War Damage Commission}
\end{figure}

While the capital group as originally planned was always already a Trojan horse, a concrete monument to idolize while the United States worked out the complexities of a foreign policy indistinguishable from the latter stages of what was at one time an explicitly colonial strategy, the capital group as eventually rebuilt was part and parcel of a colonial strategy totally refined in its reconstruction. This strategy, which centers around the requirements and needs of foreign capital includes international aid, structural readjustment, technical assistance, and a

\textsuperscript{15} Vincente Rafael, “What’s in a Date? Excavating the Fourth of July” unpublished.
military infrastructure—the contemporary lexicon of a development strategy that finds its formative roots in concrete colonialism. As an object of study, concrete has presented various and particular difficulties—it subverts a sensible perception of volatility, by setting certain aspects of physical reality in place. Amidst a process of ever-shifting, always forming assemblies of power concrete appears as fixed, so that we may fixate upon it. It thus presents certain dangers to those who endeavor and have endeavored to analyze it, who may all too easily mistake solidity for reality.

Figure 11.13 The Aftermath of War
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