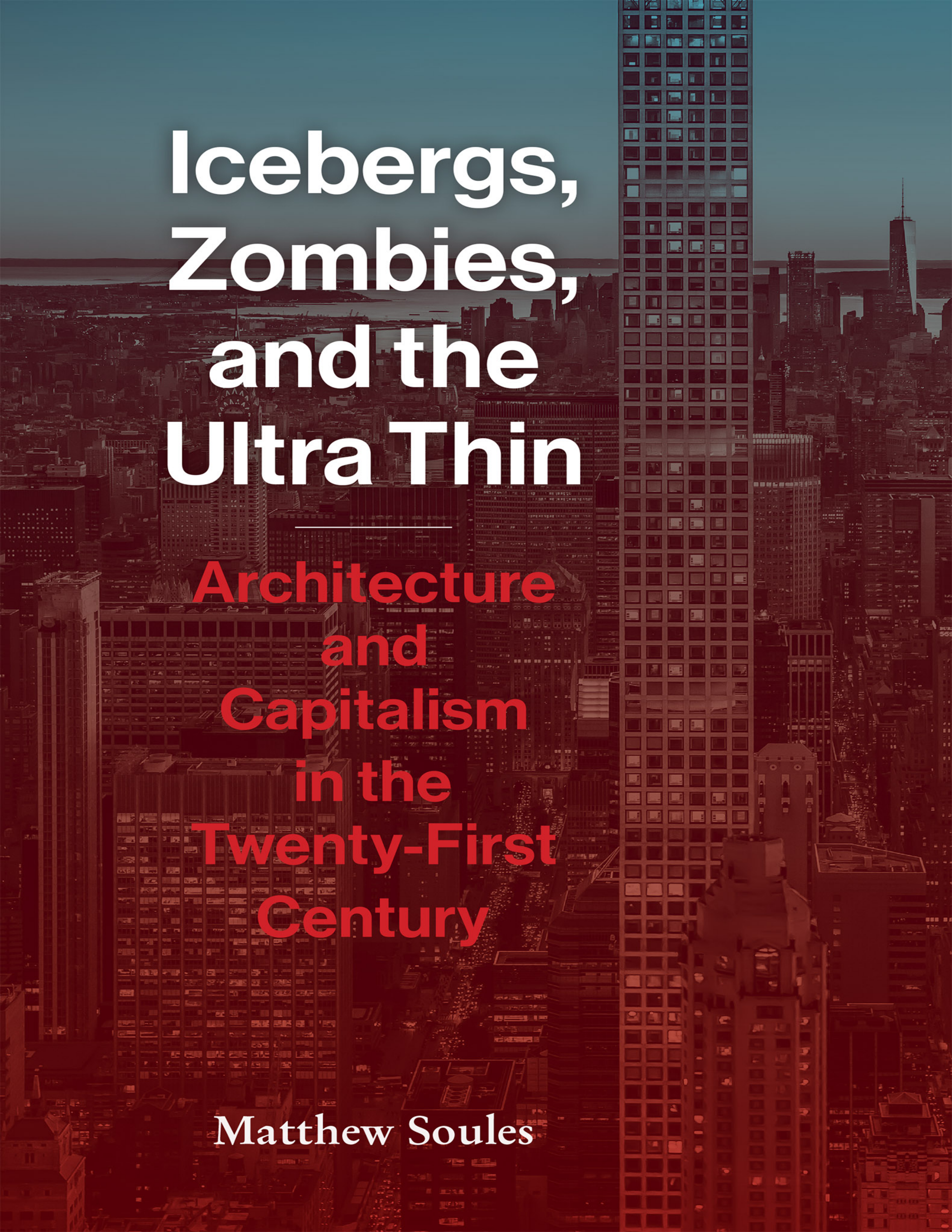

Icebergs, Zombies, and the Ultra Thin

Architecture and Capitalism in the Twenty-First Century

Matthew Soules

Introduction

The shift from investments in production to speculation on the stock market, the globalization of finance, and . . . the new level of a frenzied engagement with real estate values, these are realities with consequences for social life . . . ; and the effort to theorize those new developments is very far from being an academic matter.

FREDRIC JAMESON, 1998

Iceberg homes in London, where a global investor class buries wealth architecturally, deep into the earth. Zombie urbanism, where subtle but persistent underoccupancy has become common in cities from Melbourne to Paris. Ultra-thin pencil towers in Manhattan, where astronomically priced units are purchased by numbered companies under a cloak of secrecy. Extreme scales of commodity repetition in housing archipelagoes on the periphery of Madrid. The predilection for new natures. Parametrically designed complex building forms serving as singular icons in more and more cities. Millions of purchased but unoccupied units in the ghost cities of China. Speculative housing estates constructed in Ireland only to be demolished before being inhabited. The emergence of a tomb-like neo-spiritualism. Housing affordability crises in cities around the world. The confounding opacity of mortgage-backed securities. The expanding role of real estate investment trusts in configuring the United States' built environment. The globalization of real estate brokerage firms. Over the last four decades, something fundamental seems to have changed in how architecture works.[1]

Capitalism and Its Ever-Changing Character

Capitalism constantly changes, shape-shifting from place to place, time to time, and subject to subject. Historians describe the transformation of dominant modes of capitalist accumulation: mercantile, agricultural, industrial, and consumer capitalism. Varying social relations can be foregrounded: state, welfare, laissez-faire, monopoly, or corporate capitalism. Or capitalism can be described in temporal stages: advanced, late, and postcapitalism. Specific avatars are routinely christened in relation to almost any phenomenon: cognitive capitalism, eco-capitalism, surveillance capitalism, spiritual capitalism. This fluid ubiquity captures the challenges of addressing capitalism while signaling its importance. But of the exhaustive nomenclature, the most appropriate term for capitalism in the twenty-first century is *finance capitalism*.

The terms *finance capitalism* and *financialization* occupy prominent positions in contemporary discourse, yet their definitions are nebulous and often vague. Finance capitalism is here understood in two senses. In the first, it is a type of capitalist behavior that facilitates the circulation and accumulation of capital through issuing and exchanging credit, securities, and their numerous avatars. Since credit plays an integral role in capitalism, finance capitalist behavior has been a necessary and always-present feature of capitalism since its very inception. Finance capitalism pursues profit through the exchange of financial instruments rather than through the production of commodities that are sold at markup. Examples of financial instruments include currency, bonds, stocks, and derivatives.

In the second sense, finance capitalism is a stage of capitalism in which the pursuit of profit through financial transactions is so ubiquitous that it is the defining character of an era. This book adopts the position that finance capitalism is *both* a constant, yet varying, feature of capitalism *and* a phase in its history.

Associated with these two senses of finance capitalism is the term *financialization*. Like the other widely deployed terms *globalization* and *neoliberalism*, financialization risks signifying everything and nothing. The sociologist Greta R. Krippner, who published a highly regarded empirical analysis of financialization in the US economy, defines financialization as “a pattern of accumulation in which profits accrue primarily through financial channels rather than through trade and commodity production. ‘Financial’ here refers to activities relating to the provision (or transfer) of liquid capital in expectation of future interest, dividends, or capital gains.”[2] In this book, I utilize Krippner’s definition but expand it to include a whole host of human behaviors and practices that are associated with the pattern of accumulation she identifies. In this model, everything from aspects of individuals’ daily lives to large-scale industrial production can be financialized. For example, the widespread adoption of credit cards and the prominence of the stock market in media reporting are both parts of how everyday life has been financialized. This book takes the position that finance capitalist behavior has increased in such significance and to such a degree that it defines our era.

Shelter—Culture—Wealth

Architecture, as a mode of production and a part of the cultural superstructure, has necessarily always had a relationship with capital. Addressing architecture’s manifold connections to capital has invariably been, therefore, a relevant concern of architectural criticism and theory. But the rise of finance capitalism in the years since 1980 is of exceptional and unprecedented significance for architecture. “Architecture and twenty-first-century capitalism” should really be viewed as “architecture and its relationship with finance capitalism.”

The quanta of architecture and urbanism (land, buildings, and their subdivided elements) have served as investment assets and vehicles to store wealth since at least the time of Vitruvius, the first century BCE, when Roman properties were bought and sold in markets not entirely dissimilar to contemporary capitalist models. Karl Marx describes what he calls primitive accumulation: the transformation in Western Europe from feudalism into early capitalism through the appropriation of the means of production—which started with land.[3] Through such acts as enclosure and assembly, a small number of people took over the commons and transformed it into private property. Private land property—what came to be categorized as real estate—is thus the "primitive" location of capital accumulation, the original site of wealth storage.

While real estate has long played a vital role for wealth storage, the ascendancy of finance capitalism has continuously and dramatically accelerated the investment asset function of buildings. By emphasizing profit acquisition through speculative real estate investment, finance capitalism entails the most symbiotic and synthetic relationship architecture has ever had with capitalism.

Buildings simultaneously fulfill three elemental roles: providing shelter, manifesting culture, and embodying wealth. A building always provides protection from the elements. At the same time, by necessity, it embodies cultural ideas and practices. And because buildings require labor to design and construct and because they incorporate physical materials, they are always an embodiment of wealth. Individual buildings vary in their proportions of the shelter-culture-wealth triad, with some structures more determined by the pragmatics of shelter, others the performance of culture, and yet others the storage of wealth and production of profits. The same can be said about different historical moments and geographical locations: the relative proportion of shelter-culture-wealth in buildings shifts over time and place. The premise of this book is that in the current era of finance capitalism, since around 1980, the wealth function of buildings has significantly increased. And as the wealth function rises, it recalibrates its relationship with the shelter and culture roles of buildings. Within finance capitalism, the function of buildings as profit-generating investment assets rises to such significance that in many instances it overshadows the historically more prominent roles of shelter and culture.

Finance Capitalism's Current Ascendancy

The rise of finance capitalism since approximately 1980 has been extensively documented.[4] Since this ascendancy is integral to the workings of contemporary capital, there is no shortage of opportunities to measure its magnitude. But those aspects of the economy at the core of finance capitalism—such as stock and currency markets—and what is more broadly categorized as the finance industry are convenient.

From all vantages, the stock market has grown in scope and scale. In 1980, there were 14,000 companies listed on the world's stock exchanges compared to 43,000 now.[5] In today's dollars the total value of stocks traded globally in 1984 was $1.7 trillion and by 2018 had reached $68 trillion, after peaking at just under $100 trillion in 2015.[6] (All figures in this book are quoted in adjusted US dollars, unless otherwise noted.) This is an increase from 17 percent to 98 percent of world GDP.[7] In 2015, the value of stocks was more than 160 percent of world GDP. Even more explosive growth can be found in the market for derivatives, which are contracts that derive their value from an underlying entity such as a stock or mortgage.[8]

The highly speculative character of currency markets is especially indicative of finance capitalism's rise. In the 1970s the daily volume of foreign exchange transactions was between $10 and 20 billion, but by 2000 a typical day had a volume of about $2 trillion—150 times greater than the value of all goods and services traded worldwide each day.[9] Roughly 80 percent of foreign exchange transactions in 1975 involved the trading of an actual product or service, while the remaining transactions were speculative, but by 2000 that ratio had dramatically shifted, with speculative transactions at 98 percent.[10] By 2019, the foreign exchange market had an average daily transaction volume of $6.6 trillion, making it by far the largest financial market in the world.[11]

As the scope and scale of financial markets have mushroomed, so have the financial sector's profits. In the United States, annual corporate profits in finance are higher than in any other industry. In 1982, about 14 percent of corporate profit in the United States was earned through financial corporations; two decades later it had risen to roughly 40 percent.[12] But the profits of financial corporations capture only a portion of the degree to which the US economy has financialized. Krippner demonstrated how nonfinancial corporations increasingly derive significant portions of their profit from financial transactions.[13] Examples of this include car manufacturers offering automotive financing products to dealerships and individuals, and large-scale housing developers making profit from financing the homes they sell.

The growth of financial markets and their associated profits has occurred in parallel with a change in finance's sociocultural position. In Western countries, marketing for financial products such as mutual funds, credit cards, and mortgages saturates the media. Ordinary people—even teenagers and children—are encouraged to become financially literate. By the 2000s, Wall Street had begun to draw a large percentage of elite US college graduates.[14] And the advent of online trading has made it easier for people to become active in trading financial assets. In 1980, 13 percent of people in the United States directly or indirectly owned stock.[15] According to polling by Gallup, that number reached a high of 63 percent in 2004 and in 2019 was at 55 percent.[16] When people do not directly own stock, they often indirectly own it through such things as pension funds. As more people own stock, use credit cards, and watch movies like *The Wolf of Wall Street*, everyday life is transformed. As Randy Martin, professor of art and policy at New York University, wrote in *Financialization of Daily Life*:

> Finance, the management of money's ebbs and flows, is not simply in the service of accessible wealth, but presents itself as a merger of business and life cycles, as a means for the acquisition of self. The financialization of daily life is a proposal for how to get ahead, but also a medium for the expansive movements of body and soul.[17]

It is in this manner that the stock market comes to be treated as an elemental barometer for not just the economy at large but also the vicissitudes of human existence in its entirety.

Marx and the Fictions of Finance

Without labeling it as such, Karl Marx pioneered the critique of finance capitalism in *The Process of Capitalist Production*, volume 3 of *Capital: A Critique of Political Economy*. Here, Marx discusses the essential role of credit in capitalism and demonstrates its basis for the function of banks and the stock market, writing that credit is a "necessary formation . . . on which the whole of capitalist production depends."[18] With extensive narration of the function of "bills of exchange" that exist between creditor and debtor and the intermediary role of entities such as banks, he establishes financial instruments and institutions as constant features of capitalism. For Marx, the joint-stock company (a business whose stock can be bought or sold by shareholders) is an extension of the credit system. A company can raise money by borrowing it (credit) or by issuing stock (equity). Both require the intermediation of financial institutions and instruments and can be thought of on a continuum.

Marx labels a critical aspect of the credit and joint-stock system as "fictitious capital." He understands fictitious capital as distinct from "real-capital" (capital in the form of the physical means of production) and "money-capital" (actual funds in the form of paper money, gold, or some other currency). The fictitious character of capital within the credit and the joint-stock system derives from its ability to increase or decrease through transactions and associated accounting practices alone and in a manner that appears to Marx to be relatively disconnected from real conditions of production:

> With the development of interest-bearing capital and the credit system, all capital seems to be duplicated, and at some points triplicated, by the various ways in which the same capital, or even the same claim, appears in various hands in different guises. The greater part of this "money capital" is purely fictitious.[19]

Marx elsewhere quotes a Yorkshire banker, W. Leatham, in regard to bills of exchange specifically:

> It is impossible to decide what part arises out of real *bona fide* transactions, such as actual bargain and sale, or what part is fictitious and mere accommodation paper, that is, where one bill of exchange is drawn to take up another running, in order to raise a fictitious capital, by creating so much currency.[20]

Thus "fictitious capital has its characteristic movement." For Marx, most banking capital is fictitious, taking the form of bills of exchange and stocks.[21]

The problems of fictitious capital are numerous, according to Marx. *Capital*, volume 3, recounts various economic crises in nineteenth-century England, providing Marx with evidence for some of finance's most egregious characteristics. "The credit system appears as the main lever of overproduction and excessive speculation," he argues, due to the separation it creates between owners of capital and managers of production. Its ascendancy engenders novel dimensions in the class struggle of capitalism, reproducing "a new financial aristocracy, a new kind of parasite in the guise of company promoters, speculators and merely nominal directors."[22]

Hilferding and Lenin on Finance Capitalism

Since "fictitious capital" appears only in volume 3 of *Capital*, which was completed by Friedrich Engels after Marx's death, the term cannot be said to occupy a central position in Marx's body of work. Its importance grew among early twentieth-century Marxists who extended his preliminary work on finance. Some of the more prominent figures to grapple with finance capitalism in the early part of the century include Russian revolutionary and Soviet head of state Vladimir Lenin and the Austrian-born economist Rudolf Hilferding.

Hilferding's 1910 book *Finance Capital: A Study of the Latest Phase of Capitalist Development* attempts to extend Marx's initial work concerning credit and the joint-stock company. The emergence of close structural and personal links between industrial and bank capital that Hilferding witnessed in parts of Europe defined finance capitalism for him.[23] Because, in Hilferding's view, Marx did not grasp the full significance of the joint-stock company, Marx "does not yet conceive dividends as a distinct economic category and hence fails to analyse promoter's profit." Hilferding argues that a shareholder in joint-stock companies does not rely on profits from those companies, but rather becomes a type of money capitalist who profits from a form of interest unique to shareholder securities. He calls this gain promoter's profit and recognizes it as an entirely new type of profit, writing that "promoter's profit is neither a swindle, nor some kind of indemnity or wage. It is an economic category *sui generis*." This new category of profit accelerates a schism between production and finance, as "the share of interest in the total profit increases to some extent at the expense of entrepreneurial profit. In other words, the share of rentier grows at the expense of productive capitalists."[24]

Promoter's profit incentivizes the creation of joint-stock companies and thus enlarges the stock market, which Hilferding identifies as having a "true sphere of activity . . . as a market for titles to interest, or fictitious capital." Because many functions of a stock exchange overlap with those of other entities—for example, one can buy shares in a joint-stock company from both a bank and a stock exchange—Hilferding argues that the distinctive "specific activity of the stock exchange is really *speculation*." Thus finance capitalism is inextricable from fictitious capital that allows for unique profits in a speculative structure. Hilferding recognizes that speculation is unproductive, yet nevertheless necessary to the function of capitalism.[25]

Lenin's *Imperialism: The Highest Stage of Capitalism* was published in 1916 and is largely derivative of Hilferding. However, its significant contribution was to articulate the imperialist dimension of finance capitalism. According to Lenin, the world is divided into a small number of "usurer states" and a much larger number of "debtor states" through the credit system that finance capital extends across the planet.[26] Finance capital had become global by his era and had rewritten the modes of production and superstructure everywhere.

Finance Capitalism as a Phase of History

Finance capitalism can be understood as integral to the cyclical nature of capitalist economies. The Italian economist and sociologist Giovanni Arrighi envisioned two cycling stages of capitalist accumulation, prying Marx's general formula of capital, M-C-M (money-commodity-money), into a separate first M-C stage that is then followed by a C-M stage. Arrighi writes, "The central aspect of this pattern is the alternation of epochs of material expansion (MC phases of capital accumulation) with phases of financial rebirth and expansion (CM phases)."[27] During the first phase, there is an increasing "mass" of commodities, and in the second phase, "an increasing mass of money capital 'sets itself free' from commodity form, and accumulation proceeds through financial deals (as in Marx's abridged formula MM)."[28] Arrighi's *The Long Twentieth Century: Money, Power, and the Origins of Our Times* makes the case that there have been four great "hegemons" of capitalism, each defined by their capital city: Genoa (1340–1630), Amsterdam (1560–1780), London (1740–1930), and New York (1870–present). Each hegemonic period encapsulates one "systemic cycle of accumulation"; Arrighi calls the second, financial phase the autumnal phase, marking the decline of that particular hegemon.

Building upon Arrighi, Fredric Jameson describes capitalism's development as an "epidemic of epidemics" distributed across time and space in which a repeating cycle "replicates itself and reproduces a series of three moments."[29] The first moment is defined by the accumulation of money through trade. The second arises when this accumulation becomes capital that is invested in agriculture and manufacture. As this inevitably results in increasingly saturated markets that constrain production and consumption, the third moment—speculation—emerges:

> Speculation—the withdrawal of profits from the home industries, the increasingly feverish search, not so much for new markets (those are also saturated) as for the new kind of profits available

in financial transactions themselves and as such—is the way in which capitalism now reacts to and compensates for the closing of its productive moment. Capital itself becomes free-floating.[30]

The Greek politician and economist Costas Lapavitsas, in his 2013 *Profiting without Producing: How Finance Exploits Us All*, argues that capitalism has had two "waves of financial ascendancy," the first spanning the final quarter of the nineteenth century and lasting until roughly the interwar years (the period that informed Hilferding) and the second starting in the late 1970s and continuing to the present.[31] In his explicit focus on financialization, distinct from Marx, Lapavitsas understands the financial system as "neither a minor adjunct, nor a parasitical excrescence of the capitalist economy, but an integral part of sustaining its accumulation." Lapavitsas describes an asymmetry in the current period of ascendancy between the sphere of production and "the ballooning sphere of circulation" in which financialization entails an entirely new form of profit. This is not promoter's profit, as identified by Hilferding, but rather what he calls financial expropriation, in which profit originates in the money revenue of workers.[32] He uses pooled mortgages as an example of financial expropriation, arguing that the future revenue of workers is the source of profit for these traded assets. Recognizing that Marx's and Hilferding's theories have limited application to contemporary finance capital, Lapavitsas is cautious about fictitious capital. He recognizes its utility as a conceptual category in analyzing finance capitalism but emphasizes that financial profits are enormous and real and that the notion of fiction should not distract any analysis. Furthermore, he believes that loanable capital, not fictitious capital, is at the root of financialization.[33]

Authors such as Marx, Hilferding, Lenin, Arrighi, Jameson, and Lapavitsas work in different contexts, offer different positions on finance capitalism, and have varying applicability to contemporary conditions. Nevertheless, the essential contours of finance capitalism are common to them. They all recognize that finance capitalism is a constant, yet varying, feature of capitalism that entails unique forms of profit that arise from the exchange of financial instruments unto themselves, the heightened role of speculation, and a separation of ownership and production. At the same time, the more recent writers —Arrighi, Jameson, and Lapavitsas—recognize that something significant and unique has occurred since roughly 1980. As Jameson observed in 1998, "I think everyone will agree that finance capital, along with globalization, is one of the distinctive features of late capitalism, or in other words of the distinctive state of things today."[34]

Neoliberalism, Globalization, Financialization

The post-1980 financialized economy is interrelated with two contemporaneous phenomena: neoliberalism and globalization. The relationship is so intimate that it is hard to disengage them from one another. The three concepts compete to serve as the most appropriate organizing concept for post-1980 capitalism.[35]

While the definition of neoliberalism is diffuse, in current discourse it tends to signify economic policies—such as privatization, deregulation, and decreased government spending—that expand the role of the private sector. Many neoliberal policies and practices played a key role in the ascent of finance capitalism. One of the most important occurred in 1971, with Richard Nixon's New Economic Policy, which suspended the gold standard. This effectively ended the Bretton Woods system that had established rules for commercial and financial relations among the United States, Canada, Western European countries, Australia, and Japan since 1944. What began in the 1970s gained momentum in the 1980s with the policies of Margaret Thatcher in the United Kingdom, Ronald Reagan in the United States, and Deng Xiaoping in China. In the early 1980s, the first major financial deregulation laws were passed in the United States; they were key to neoliberal restructuring and enabled current financialization to commence. Deregulation reached a high point with the 1999 Financial Services Modernization Act, which repealed the Glass-Steagall Act of 1933. It allowed commercial and investment banks to affiliate and enabled ever-larger financial conglomerates. These legal changes permitted financial institutions to grow rapidly and appropriate a much greater share of profit in the economy than they had previously.[36]

The processes of globalization date back centuries; Hilferding and Lenin described the extent to which finance capitalism operated at a worldwide scale by the late nineteenth and early twentieth centuries. This long-standing process of globalization has nevertheless accelerated in recent decades and coincides with post-1980 financialization. As the International Monetary Fund (IMF) reported in 2007, "Technological innovations and faster information flows, aided by a sharp increase in total savings being channeled into financial instruments across borders, have fostered the dramatic globalization of capital flows."[37] Cross-border capital flow was less than $1 trillion in 1990, rose to more than $12 trillion in 2007 (just before the 2008 crash), and was at $4 trillion in 2015.[38] The globalization of financial transactions is now so integral to the economies of the world that it is hard to conceive of globalization without finance and vice versa. While the rise of finance capitalism has coincided with globalization, financialization captures the specific transformation of capitalism since 1980 more directly than globalization. As Lapavitsas writes, "The deeper character of capitalism during the last three or more decades can be more easily captured by focusing on financialization rather than globalization."[39]

Architecture as Finance Capitalism

Finance capitalism has an especially pronounced effect on architecture. This is not merely because it is the dominant contemporary economic mode that, by necessity, impacts all sociocultural conditions, but rather because real estate is one of the primary mediums through which finance capitalism operates. By arguing that contemporary architecture is a primary operative medium of finance capitalism, the idea that architecture is the outcome or product of any economic structure is eschewed. Architecture is not the result of finance capitalism but rather *is* finance capitalism. As architectural historian Reinhold Martin wrote:

> Architecture . . . does not (or does not only) represent or "mirror" late capitalism as its cultural equivalent. It *belongs* to late capitalism. Asserting this might seem like attributing or conceding to architecture a near absolute immanence. But seen from another direction, it also extends the dialectical model that both [David] Harvey and [Fredric] Jameson deploy, perhaps to a point of no return, a point at which what is culture and what is capital cannot be distinguished in any useful way.[40]

Just as architecture has helped produce finance capitalism, finance capitalism has helped produce architecture. Any binary between capital and culture resonates with that of fiction and reality. Marx's term *fictitious capital* describes a distinction between capital directly bound up with production and a specific form of capital within the comparatively abstract layers of credit and speculative markets. Fictitious capital denotes a tension between ostensibly material, real conditions and immaterial, fictional conditions. A Marxist analysis of any process of financialization has to grapple with whether that process is also a fictionalization. Finance capitalism does indeed entail a shift toward greater importance for Marx's fictitious capital. As architecture in the twenty-first century *is* finance capitalism, it is perhaps best described as a financial fiction. Architecture is finance and finance is a fictional dimension of capitalism.

But the profits arising through finance capitalist transactions are very real, and financial fictions are not immaterial. The architecture described in this book is just as physical as any. So architecture becoming financial fiction is not only its virtualization or dematerialization, but rather its rematerialization. As architecture becomes financial fiction, its material conditions transform and adjust. Exploring architecture as finance capitalism reveals what the British political theorist Timothy Mitchell notes as "the distinction between virtual and real, model and reality, [that] is found at every point," helping to "engineer the modern sense of the real, or the material, as that from which we are cut off."[41]

CHAPTER ONE

FINANCE CAPITALISM AND ARCHITECTURE

In the free market, architecture=real estate.
REM KOOLHAAS, 2003

While architecture and capitalism have always been related, the ascent of finance capitalism since 1980 has uniquely implicated architecture because built space is a preferred operating medium of finance. As architecture has become finance and finance has become architecture, key aspects of both have changed. These changes involve how buildings are conceptualized, used, and managed and at the same time how they are designed, entailing everything from their proportions to their programmatic composition. The result can be experienced in the landscapes and cities that many of the world's citizens inhabit.

The FIRE Economy

As Fredric Jameson recognized in the late 1990s, "One of the privileged forms of speculation today is that of land and city space."[1] Indeed, some observers argue that real estate is now the single biggest component of certain economies. The American economist Michael Hudson wrote that the "'postindustrial' economy turns out to be mainly about real estate," adding that, in Western economies, increases in property values are "the driving force in today's financialized mode of 'wealth creation.'"[2] Financial tactics and logics are increasingly interconnected with real estate. The fact that real estate investment is primarily debt financed conveys one important aspect of the tight symbiosis between the finance and real estate sectors.

To capture this symbiosis, the term *FIRE economy* emerged in the 1980s; it has come into more common economic parlance since. An acronym for *finance, insurance, and real estate*, it indicates the economic ecology connecting landowners, banks, insurers, mortgage brokers, investment brokerages, real estate developers, real estate agencies, and hedge funds. Not only are the finance and real estate industries tightly interdependent, but so is the insurance industry to them, since insurance corporations are among real estate's largest investors. For example, in 2018, the largest investor in global real estate was Prudential, a multinational insurance corporation headquartered in London, with a reported $64 billion in real estate assets.[3] The monthly periodical *Institutional Investor* reported in 2018 that insurance corporations account for 21 percent of institutions with at least $1 billion invested in real estate.[4] A large portion of the FIRE sector's revenue comes from fluctuating asset prices and interest on loans—making it an embodiment of finance capitalism.

As finance and insurance became increasingly integrated with real estate during the 1990s, the way that real estate had functioned for centuries fundamentally changed. It transformed from what had historically been a local endeavor into an asset class traded in various forms in global financial markets.[5] While this recent financialization of real estate is widely recognized as unprecedented in scope and scale, it is important to note that just as finance capitalism is a constant feature of capitalism itself, so is real estate. Vladimir Lenin wrote in 1916 that "speculation in land situated in the suburbs of rapidly growing towns is a particularly profitable operation for finance capital."[6] Giovanni Arrighi described the earlier two of his four hegemons, the Renaissance Italian city-states and Enlightenment Amsterdam:

> The profits that were being made in long-distance trade and high finance . . . could not be reinvested in these activities without jeopardizing their profitability. Then as now, a significant portion of this surplus capital tended to flow into speculation and into conspicuous consumption; and then as now, investment in real estate within the capitalist cities themselves were [*sic*] the most important means of combining speculation with conspicuous consumption.[7]

The role that real estate plays in finance capitalism is as integral and therefore as long-standing as finance capitalism is to capitalism at large.

One of the keys to understanding the important role that real estate plays in finance capitalism is the relationship between rent and fictitious capital. In Marxist economic geographer David Harvey's analysis, when land is traded, it becomes a special type of commodity. It does not have any value in the Marxist sense, as it is not a product of labor, yet it can secure for the owner a stream of rent. Harvey states that the rent revenue on land is in principle no different from the revenue acquired through investments in such things as government debt and corporate securities. He writes, "The land becomes a form of fictitious capital, and the land market functions simply as a particular branch—albeit with some special characteristics—of the circulation of interest-bearing capital."[8] Therefore real estate finds its function as a vehicle of finance capitalism in the structural condition of capitalism and land rent.

The Central Role of Housing

While real estate takes many forms—including raw land and a variety of building types—housing plays an especially important role in the current era of finance capitalism. And while housing, like all real estate, is a long-standing site of finance capital, it has assumed heightened importance in contemporary capitalism. Costas Lapavitsas identifies three tendencies of accumulation that have given financialization its current character, one of which is that "individuals and households have come increasingly to rely on the formal financial system to facilitate access to vital goods and services, including housing, education, health and transport. The savings of households and individuals have also been increasingly mobilized by the formal financial system."[9] This unique distinction of current financialization is critical for real estate and housing, since housing is the primary way that individuals and households are financialized. The geographer and sociologist Manuel B. Aalbers demonstrates what he calls "the specificities of housing as a central aspect of financialization" in his 2016 book *The Financialization of Housing*. He writes:

> Housing-based wealth, that is housing valued at current market prices minus mortgage debt, has risen to historically unprecedented heights, implying that real estate has become more important as store-of-value for households in the age of financialization.[10]

Aalbers identifies five mechanisms through which housing is financialized: the securitization of mortgage loans; the rise of subprime and predatory lending; rising mortgage debt for households; the entry of private equity firms, hedge funds, and publicly listed real estate firms in rental markets; and the reliance of housing providers on bonds and complicated financial derivatives.[11]

It is hard to overstate the importance of housing to current capitalism. Market-based financing of housing has grown dramatically since the deregulation of financial systems.[12] The result is that, for instance, in 2010 in the United States, Britain, and Australia, 70 percent of all bank loans were real estate mortgages.[13] In the United States, the total value of mortgages for one- to four-family residences climbed from around $900 billion in 1980 to almost $11 trillion by the end of 2019.[14] Household debt, of which mortgages are typically the largest component, has risen significantly in the era of finance capitalism. In the United Kingdom, it has risen from 30 percent of GDP in 1980 to 87 percent in 2018, and over the same period from about 46 percent to 100 percent in Canada, 50 percent to 76 percent in the United States, and 38 percent to 120 percent in Australia.[15]

While financialization entails vast markets, complex transactional chains, and powerful intermediaries, it is important to remember that housing serves as the physical construct through which people become most heavily engaged with financing. In many economies, houses are the most widely owned asset, the biggest asset of the majority of households, and the asset that is simplest to borrow against.[16] This engagement with finance typically occurs through a decades-long relationship with a bank. At the same time, the IMF observes that the rise and fall of housing prices are becoming more synchronized across the planet.[17] This is because housing is no longer only a physical construct that is bought, sold, and financed locally but also a global asset class.

The Giant Pool of Money

The drivers of the financialization of housing and real estate are numerous and complex, but the growing magnitude of global capital is a critical basic backdrop of it. This large mass of capital has been referred to as the "giant pool of money" and the "wall of money."[18] There are a variety of methods to measure the total amount of global capital. One can consider global assets under management—the aggregate amount of capital savings in various forms of management funds, such as pension funds, mutual funds, or insurance funds. Different institutions offer varying statistics for assets under management, but all agree that growth in recent decades has been staggering. For example, PwC (formerly PricewaterhouseCoopers) issued a report in 2017 titled *Asset & Wealth Management Revolution: Embracing Exponential Change*, which states that global assets under management more than doubled from $37 trillion in 2002 to $85 trillion in 2016.[19]

Where is all this money coming from? A major source is "emerging market economies," generally defined in mainstream economic discourse as markets—currently including those of Brazil, China, and India—transitioning from less developed to advanced. In essence, the productivity of global economic systems and their dramatic role in these emerging territories have resulted in a historically unprecedented amount of capital. Other factors such as loose monetary policy and the accumulation of profits by transnational corporations also play an important role in feeding the giant pool of money.[20] The relevance of this for architecture lies in how and where the growing surplus of capital is absorbed.

There exists a heightened imperative for capital investment to be made in asset categories that offer profitable returns coupled with reasonable risk. While this imperative may be understood as a basic premise of capitalism, with what David Harvey calls the "perpetual need to find profitable terrains for capital-surplus production and absorption shap[ing] the politics of capitalism," it can be argued that the drive to newly profitable terrains is amplified in the context of the giant pool of money.[21] For most of modern history, the majority of investment capital went into relatively safe and stable locations such as treasuries and municipal bonds.[22] But as capital grew, those instruments became less attractive, while the search for new terrains resulted in more and more capital being absorbed by real estate. As Harvey describes, the processes of contemporary urbanization are "driven by the need to find outlets for overaccumulating capital."[23] Indeed, Harvey notes, "Urbanization has played a particularly active role, alongside such phenomena as military expenditures, in absorbing the surplus capital that capitalists perpetually produce in their search for profits."[24] The financialization of real estate and housing improves their capacity to perform this absorption function.

Aerial image, taken in 2015, of the incomplete Ascaya development in metropolitan Las Vegas.

The Emergence of Asset Architecture and Urbanism

Real estate, and especially housing, is a primary medium through which finance capitalism actualizes itself, and it is because of this that architecture can be described as a primary medium of financialization. As most real estate incorporates architecture, architecture exists at the center of finance capital, not just in a peripheral domain merely affected or influenced by it. Instead, it is one of the main agents of financialization and better understood as financialization itself. Through mortgages, mortgage-backed securities, home equity loans, and other financial constructs, the buildings that are necessarily connected with these financial instruments are a major component of the current era of financialization.

But at the same time, these buildings are physically present in the everyday lives of the people who inhabit them. And because these buildings are both designed and used to suit the logics of finance capitalism, they imprint the logics of finance onto how humans move through space, what is in their field of vision, and how they interact with others both inside the buildings and in the public spaces between them. It is in this way that architecture serves as an overarching means of financialization for the human condition. The building is literally the object that ties more and more people into the seemingly immaterial flows of finance capital at the very same time that it configures financialized ways of moving, seeing, and behaving.

As finance capitalism has ascended and pulled architecture toward the center of finance, how has architecture changed? What are the characteristics of its financialization? The shift entails changes to almost every aspect of built space. This includes physical attributes such as siting, scale, program, organization, form, aesthetics, and materiality, as well as how buildings are conceptualized, managed, maintained, and used. The architecture of finance capital has five broad characteristics:

For years, laborers have continually raked the rocky ground of Ascaya, keeping this massive earthwork in an odd state of sublime purity.

1. It is inherently unstable and creates spaces of crisis.
2. It increasingly functions as speculative wealth storage.
3. It is the means of uneven development and heightened inequality.
4. It has a simultaneous propensity for highly iconic and extremely standardized spaces.
5. It increases liquidity.

Architectural changes in form and function that are unique to the contemporary era of finance capital can all be understood in relation to these five financial functions.

Spaces of Crisis

While the cyclical disposition of capitalism is constant, financialization, observers argue, increases the tendency for crisis, with some describing it as being in an almost perpetual state of crisis.[25] As architecture and urbanism increasingly absorb surplus capital, they begin to behave more like stocks, complete with their instability. Such things as rapid development, the oversupply of built space, mass vacancies, and volatile fluctuations between growth and decay mark the resulting urbanism and present unique socio-spatial challenges and opportunities. Zombie and ghost urbanism, characterized by a subtle but persistent underoccupancy in the former and by extreme vacancy in the latter, are now worldwide phenomena. Housing costs are increasingly detached from local economies, prompting crises of affordability. Overt crises that have architecture at their core—like the savings and loan crisis in the mid-1980s and the subprime mortgage crisis in the mid-2000s—have become more common. Financialized architecture and urbanism create an unstable landscape marked by the detritus and absurdities of simultaneous expansion and collapse.

The inherent instability and the unforgiving vicissitudes of economic booms and busts result in spaces of crisis that are themselves characteristic of finance capitalist architecture and urbanism. These include land cleared and prepared for development that sits in fallow decay for more than a decade and neighborhoods that are eerily underpopulated. These conditions—historically associated with failures and crisis—are typical of spaces of crisis that finance capitalism propagates.

Finance capitalist crisis space often juxtaposes the semiotics of success and failure in unusual ways. An example can be found at Ascaya, a “luxury” single-family-home subdivision in suburban Las Vegas. With 313 lots carved into a mountainside, the project stalled with the 2008 housing collapse in the United States. More than twelve years later, the site remains largely unoccupied, with just a few multimillion-dollar homes sitting on what is essentially a massive earthwork. Here, a few wealthy homesteaders occupy a kind of financial wasteland—a new nature. The scale of speculative development in the era of finance capitalism, in combination with the propensity for swings between growth and collapse, results in surreal territories like Ascaya.

Speculative Wealth Storage

Financialization elevates architecture as a site for both wealth storage and speculative capital gains. Unlike safe-deposit boxes (as condominiums are sometimes referred to by the media) or savings accounts, buildings have prices that can fluctuate significantly and therefore offer the opportunity for spectacular gains. Manuel B. Aalbers recognizes that housing has become more important as a store of value for households during financialization.[26] And Giovanni Arrighi notes that investing in urban architecture is the most important means of combining speculation with conspicuous consumption.[27] Architecture is transformed as the sheer amount of money entering real estate distorts the form and scale of buildings, which mutate as they get thinner and taller, extend deeper, and repeat ever more relentlessly across ever-larger scales.

An example of speculative wealth storage is Pentominium in Dubai. The project has one 6,000-square-foot (550-square-meter) unit per floor—an entire tower of penthouses! (The name Pentominium is a portmanteau of *penthouse* and *condominium*.) At 122 stories and more than 1,600 feet (500 meters) tall, the structure would have been the tallest residential building in the world upon completion. Construction commenced in 2009 but stalled in 2011, when the tower had risen only twenty-two floors. The partly finished tower sits abandoned to this day. During construction, the developers boasted in promotional marketing, “The Pentominium has one of the deepest excavations done in the world—an exercise necessary for this awe-inspiring proposition.”[28] The carcass of this ambitious scheme of future wealth storage sits among neighboring towers, long ago complete.

Inequality

As the French economist Thomas Piketty has shown, the post-1980 era of finance capital has coincided with growing inequality in most advanced capitalist economies. The growing number of very wealthy individuals and the amount of money they control has resulted in a proliferation of architecture uniquely tailored to them. Take, for example, the emergence in the twenty-first century of "gigamansions" in Los Angeles. While the wealthy have always built large and conspicuous houses, the number and extremity of these structures is new. *Gigamansion* tends to signify a home that is at least 20,000 square feet (1,850 square meters), sells for $50 million or more, and has an array of ostentatious amenities such as champagne rooms and bowling alleys. In contrast, a few hours' drive from the gigamansions of Los Angeles, subdivisions blanket the Inland Empire with the single-family homes that are the physical constructs through which lower- and middle-class families obtain mortgages.

Iconic Standardization

Certain architecture projects emphasize standardization in order to better function as tradable assets, while others aim to attract investors by being what Arindam Dutta, an MIT associate professor in architectural history, labels "financial icons."[29] Standardized and iconic buildings sometimes work in concert. A specific financial icon, such as a signature museum, can seed an urban territory with investor desire. This then increases the surrounding, and often highly standardized, buildings' ability to function as spatio-financial instruments for wealth storage and speculation.

In other instances, the standardized and the iconic coexist within the same building. Herzog & de Meuron's 56 Leonard Street in Lower Manhattan is a fifty-seven-story tower with 145 condominium units that have sold for prices ranging from $3.5 to $50 million. As a site for speculative investment (one German investor bought three units), it is a slender column of standardized condominium units, yet its unique form also renders it a financial icon. The form departs from a typical tower extrusion through its increasingly uneven projections and recesses as it rises—what has been called pixelated—earning it the nickname “Jenga Tower.” It achieves an iconic status through the nonstandard shuffling of standardized quantities of luxury investment.

McClean Design, Opus (Hillcrest II), Beverly Hills, California, 2016. A 20,500-square-foot (1,900-square-meter) gigamansion with seven bedrooms, eleven bathrooms, and two swimming pools. A 170-bottle Cristal champagne vault, a gold Lamborghini, and a gold Rolls-Royce were included in its purchase price.

56
LEONARD
NESTLED ABOVE
SAILING CLOUDS
NEW YORK
SKYLINE
SUSPENDED
AMONG STARS
SKY
FULL-FLOOR PENTHOUSES
14' HIGH WINDOW WALLS
VIEWS
SPARKLING
TWO RIVERS
OPEN AIR
BEYOND WORDSWORTH
ATMOSPHERIC
SOARING CEILINGS
PRIVATE
OUTDOOR
SPACES
SCULPTURE IN THE SKYLINE
TOWER
VERTICAL GLASS EXPRESSION
145 UNIQUE
RESIDENCES
COBBLESTONE STREETS
RESTAURANTS, ART, CULTURE
TRI
BECA
GALLERIES & DESIGN
BUSTLING MARKETS
GREEN PARKS
WATER
SHOPPING
FILM
FESTIVALS
ARCHITECTURALLY
SCULPTED SURFACES
INDOOR/OUTDOOR
TRIBECA TOT ROOM, LIBRARY
INFINITY EDGE 75-FT POOL
GLOBAL
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LEONARD
DESIGNED BY
HERZOG & DE MEURON

A marketing “teaser” poster for Herzog & de Meuron’s 56 Leonard Street, New York City, 2017, with an accumulation of text such as “global landmark” and “sculpture in the sky” conveying an icon of standardized elements.

A model and box, part of the marketing campaign for 56 Leonard Street.

56 Leonard Street.

Liquidity

The process of financialization presents challenges that arise from the internal logics that have historically differentiated finance and architecture. The synthesis of these different internal logics results in particular socio-spatial outcomes. The most important of these challenges for architecture's financialization is liquidity—the degree to which an asset can be readily exchanged for cash (cash being the ultimate liquid asset). Those investment assets that function as the optimum instruments of finance capitalism require a relatively high degree of liquidity to facilitate the requisite scale of buying, selling, and investing. Financial instruments such as stocks are designed to provide this degree of liquidity—allowing investors to easily own incremental portions of diverse corporations in a market context that facilitates simple and efficient transactions. A non-financial entity, in contrast, typically has a much lower degree of liquidity. Introductory lessons on the concept of liquidity often use real estate as the quintessential example of an illiquid asset. It is difficult to exchange quickly and easily because land, buildings, and units are immovable, are comparatively large and expensive, require ongoing maintenance, tend to be highly idiosyncratic, and are situated within complex and nuanced sociopolitical contexts. Because of all these factors, buildings are bought and sold in a time-consuming process.

Financialization aims to increase the liquidity of buildings and land in a number of ways. These include embracing new financial instruments that serve as liquid intermediaries for property ownership, increasing market size through the invention of the condominium and global expansion, and changing the social performance, physical form, and aesthetics of buildings themselves.

Real estate investment trusts (REITs) and mortgage-backed securities (MBS) are examples of relatively new financial instruments that have gained in popularity since the 1980s. REITs, which were legalized in the United States in 1960, allow investors to buy and sell shares in a company that owns or finances real estate on well-established stock markets. MBS, which first appeared in their contemporary form in the United States in the late 1960s, enable investors to trade securitized shares of mortgage debt. Transactions in the shares of REITs and MBS are far more streamlined and efficient than direct purchases of real estate, thereby offering more liquid forms of real estate investment. REITs have proven to be popular worldwide. In 2009, the Financial Times Stock Exchange created the EPRA Nareit Global Real Estate Index, which tracks the performance of listed real estate companies and REITs; by 2019, it had a market capitalization of $1.8 trillion.[30] MBS have a far larger market and played a major role in the 2007–8 global financial crisis.

Directly owning real estate is expensive in comparison to other asset classes and is also highly locally specific, hence the saying, "All real estate is local." High cost and local specificity constrain the size of any given market, but finance capitalism's emphasis on real estate has been abetted by multiple factors that have increased market size and the ease of real estate transactions. Two primary ones are the invention of the condominium and the globalization of the real estate market. Legalized in North America in the 1960s but not gaining popularity until the 1990s, condominiums have provided a low-cost way to enter the real estate market with streamlined transactions. In parallel, the increase in individuals and entities purchasing real estate in far-flung locations has expanded the market. This has been facilitated by the emergence of global real estate brokerage firms such as Colliers International, currently the world's largest residential real estate brokerage firm by volume of sales. Founded in 1976, the company now employs more than 15,000 people in 485 offices spread among 63 countries.[31] Colliers competes with other global real estate brokerages such as New York–based Newmark Knight Frank and London-based Savills. The recent large-scale global expansion of these firms mirrors the exponential growth of real estate values in the early to mid-2000s.

At the same time that buildings have acquired heightened liquidity through new financial instruments and practices, their physical form and function also have changed, transforming buildings into optimized, more liquid, spatio-financial instruments that facilitate the accumulation of profit within the complex milieu of laws, regulations, and practices that constitute finance capitalism. These changes occur in four primary ways:

1. Simplifying space
2. Maximizing the number of assets
3. Facilitating remote ownership
4. Adding compensatory complexity

Simplifying architecture has myriad social and spatial consequences. Common tactics include diminishing sociality and abstracting locality —that is, diminishing the possibility of social interaction within and among buildings while incorporating standardized spaces that are relatively isolated from unique local characteristics. Maximizing the number of assets translates into repeating standardized housing units in large numbers, thus building taller towers and more extensive arrays of single-family homes. Facilitating remote ownership centers on adjusting the siting, massing, and organization of buildings so as to reduce maintenance and security demands, thus making architectural assets easier to own from afar. Paradoxically, as heightened liquidity is achieved through the first three techniques, the unique characteristics of each building are diminished to such a degree that their very viability as real estate assets is threatened. Overly simplified and standardized, they risk becoming undesirable purchases. In other words, the "real" of real estate is diminished to a degree that threatens its desirable attributes for investment. To resolve this inherent tension in the drive for liquidity, architectural conditions that *seem* complex compensate for what has been lost. This compensatory complexity, a simplified version of conditions that only appears complex, primarily serves to maintain the investment asset function.

The Aquarius residential complex in Vancouver, designed by the Vancouver architect James Cheng and completed in 1999, is an early example of all four tactics being used to increase liquidity. The project incorporates 480 condominium units in four towers, with a podium that houses retail at its base along with a modest amount of office space. An elevated courtyard sits on top of the podium, providing a private recreational domain complete with a fish-stocked lagoon and gardens. The project achieves spatial simplification through a variety of tactics, including the repetition of simple and standardized units. The podium raises these units off the ground, disentangling them from the messy complexities of public street life. Maximum asset provision is ensured through the sheer number of units. The condominium provides the legal apparatus that helps separate ownership from occupancy. The typology of the relatively slender tower placed atop a podium minimizes security and maintenance by controlling access to units through centralized lobby entrances and reducing contact with areas such as the roof that are prone to failure. These operations of architectural simplification are compensated for by the reproduction of a naturalistic ground plane on the roof of the podium; this artificial and controlled nature becomes the seemingly unique and complex site for the liquid commodities of the investment-oriented condominium units that rise above it.

James KM Cheng Architects, Aquarius, Vancouver, 1999. Condominium towers sitting atop a retail podium.

The fish-stocked lagoon and lush gardens in the new ground plane on top of the podium at Aquarius.

While architecture optimizes its asset function, it simultaneously becomes a spatial territory in which users directly engage the logics of finance capital. It is not merely that architecture is changed by finance capital but also that it becomes the medium in which humans directly inhabit financialization in their everyday lives. In financial ruins like Ascaya, investment icons like 56 Leonard Street, and standardized condominium units like those at Aquarius, the scale of investment capital, its inherent inequalities and propensity for failure, and the spatial sameness cloaked in invented “natures” all function as the rematerializations through which finance capital builds itself.

CHAPTER TWO

ZOMBIES AND GHOSTS, GROWTH AND DECAY

In the years since Occupy Wall Street emerged, it has begun to seem that the most meaningful aspect of the movement was the name itself—"Occupy." It has become clear that the very notion of occupancy is a fulcrum of contemporary capitalism. What else can one make of the normalization of the owned but empty housing units in so many buildings in cities around the world? As housing is increasingly treated as an investment asset, its basic function of providing bodily shelter is beginning to appear outmoded. A sober assessment of current global real estate trends cannot avoid the conclusion that vacancy is a preferred investment class. While vacancy rates are always shifting over time and changing from context to context, in the United States, for example, the vacancy rate, including seasonal use-related vacancies, increased by 44 percent between 2000 and 2010—growing from 10.4 million to 15 million units.[1] Economist Michael Hudson's 2010 declaration that the "'postindustrial' economy turns out to be mainly about real estate" might reasonably be updated to pronounce that today's economy turns out to be mainly about *unoccupied* real estate.[2]

A by-product of finance capitalism's emphasis on asset value over use value is the underuse of architectural space. High residential vacancies in parts of cities that are widely perceived as desirable (because of some combination of climate, culture, and setting) as well as abandoned or largely empty developments are prominent attributes of twenty-first-century urbanism. As these two conditions convey, not all underoccupancy is the same. A neighborhood's high proportion of owned but empty residential units generates an in-between state of vitality—zombie urbanism—whereas a more dramatic proportion of vacant or unfinished units in the context of a perceived crisis amounts to a distinct phenomenon—ghost urbanism. The divergence between use and asset values problematizes an array of widely held beliefs about buildings. Historically, underuse exists on one end of the spectrum, where it is closely associated with blight, decay, and ruins. On the opposite end is the vibrant utility of new growth. But twenty-first-century urbanism abounds with newly created ruins. Zombie and ghost urbanism problematize the opposition between the success of new utility and the failure of ruinous decay. And in the process, they recalibrate theoretical and emotional conceptions of architecture.

Zombie Urbanism

Zombie urbanism occurs when an area has large numbers of owned but empty housing units, resulting in a de facto density that is significantly below designed capacity. These areas mix present populations with absent populations, exhibiting an eerily low level of vitality in relation to their scale. They are not dead, but they are also not quite alive.

No urban area has full residential occupancy at any given time, because there is never a perfect alignment between housing supply and demand. In addition, there is a steady rate of turnover as people move in and out, buy and sell units, and spend time away from primary residences—all of which contribute to a certain number of empty units at any moment. What is considered an optimal level of vacancy depends on local conditions that change over time. According to the US Census, the vacancy rate in rental housing in the entire United States fluctuated between 7.6 and 10.6 percent from 1995 to 2018.[3] Over the same period, the vacancy rate of homeowner housing moved between 1.5 and 2.6 percent.[4] The equilibrium vacancy rate (EVR) is that which poses no upward or downward pressure on housing costs. As an example, Seattle has an EVR between 4.97 and 5.25 percent.[5] Zombie urbanism occurs in specific locations when vacancy rates are significantly higher than these ranges.

Owned but empty units in zombie urbanism tend to serve three functions: as wealth storage, as speculative assets, and as secondary residences. These functions can operate discretely but more often work in combination. For instance, the purchase of a secondary home for recreational use is often at least partly informed by speculation. While a typical investor will rent out a unit for ongoing revenue, very wealthy investors increasingly let units sit empty. These individuals' substantial capital propels their interest in diversifying wealth storage and also facilitates their lifestyle of global mobility, in which they perceive multiple residential properties as desirable. The growth of this wealthy population and the amount of capital it controls are having a significant effect on numerous locations around the world.

Secondary homes fall into either recreational or urban categories; some regions and cities have long been the site of these properties, from rural dachas outside Moscow to urban pieds-à-terre in London. While they have served as manifestations of wealth and privilege for centuries, recreational properties became more common during the Industrial Revolution, as the upper class and growing middle class sought relief from the challenges of modern urban life. By the early twentieth century, large areas of London—the so-called cocktail belt and stockbroker's belt—contained country and weekend homes.[6] The French term *piedà-terre* (foot to the ground) was first used in the nineteenth century to describe short-term or secondary lodging. Since then, the term has come to denote a secondary urban home, typically an apartment.

Rogers Stirk Harbour + Partners, One Hyde Park, London, 2011. Dark units at the famously expensive building adjacent to London's Hyde Park.

Finance capitalism has increased the prevalence of secondary housing. In Manhattan, for example, Midtown is a center of underoccupied housing. When the *New York Times* analyzed data from the Census Bureau's 2012 American Community Survey, they found that on the eight blocks from East Fifty-Ninth Street to East Sixty-Third Street between Park Avenue and Fifth Avenue, 628 of 1,261 homes were vacant the majority of the time.[7] While Midtown is an epicenter of pieds-à-terre, the phenomenon can be found across much of Manhattan and beyond. The 2017 New York City Housing and Vacancy Survey has shown 75,000 vacant pieds-à-terre in New York City compared with 55,000 in 2014.[8] Of course, there are other forms of vacancy. The US Census Bureau's 2017 American Community Survey counted 122,000 vacant housing units in Manhattan—almost 14 percent of all units. This compared to about 25,000 vacant units, under 5 percent, in the Bronx.[9] There are many reasons for vacancy, ranging from units awaiting demolition to those that are empty while awaiting sale, but the single biggest census category is those “held for occasional, seasonal, or recreational use.”[10]

Underuse in Paris appears to be even more widespread. A 2017 report by the Paris Urbanism Agency shows that 26 percent of homes were empty in the 1st, 2nd, 3rd and 4th arrondissements.[11] While seldom-used second homes have long been features of central Paris, they have experienced a significant uptick between 2008 and 2013, according to the same report. Ian Brossat, Paris Housing Commissioner, was quoted as saying, “It’s a really worrying issue, it’s not normal to have 200,000 empty or semi-occupied homes. It represents twice the housing available in a big arrondissement like the 18th.”[12]

London also has substantial zombie urbanism. “Some of the richest people in the world are buying property here as an investment,” the *New York Times* quoted Paul Dimoldenberg, a Westminster Council politician, as saying. “They may live here for a fortnight in the summer, but for the rest of the year they’re contributing nothing to the local economy. The specter of new buildings where there are no lights on is a real problem.”[13] Savills World Research reports that during 2011–12, 59 percent of sales of existing residences in prime areas of central London, such as Chelsea and Kensington, were purchased by overseas buyers.[14] A significant number of these properties were not primary residences and were not occupied for much of the year.

While finance capitalism increases the number of owned but empty units in major global centers of power like New York, Paris, and London, it affects a large roster of cities throughout the world. The latest Canadian census indicates nearly 100,000 vacant or underoccupied housing units in Toronto.[15] In certain parts of central Vancouver, up to 25 percent of condominiums sit largely empty.[16] In Miami, hard numbers are difficult to obtain, but real estate data suggests the perfect combination of factors for high second-home vacancy. In 2007, more than a third of all houses and almost 60 percent of condominiums in Miami-Dade County were secondary residences.[17] In 2015, 31 percent of condominium purchases in the county were made by buyers who lived at least fifty miles away.[18] It is also difficult to obtain accurate numbers for Panama City, but it is widely believed that a large portion of that city's residential towers are empty. Reports indicate that a system of using buildings for money laundering works alongside legitimate real estate investment in the city.[19] In Melbourne, the Australian NGO Prosper analyzed domestic water usage in 2014 to determine the number of vacant units and found just over 100,000 empty or hardly used homes.[20] The municipal government in Barcelona identified more than 100,000 units with zero or very little water consumption in 2016, indicating they were likely vacant or underoccupied.[21] Beirut's city center appears full of sparsely occupied condominium towers. Central Beirut experienced a surge in luxury condominium construction between 2007 and 2011 that was aimed toward expatriates and foreigners within the Persian Gulf region.[22] Many of these units were sold and are now rarely inhabited.

These locations are all perceived as both desirable places to live and good places to bank wealth in real estate. This is in no small part because there is good reason to believe that real estate values will rise over the long term. Vancouver offers the transparency and stability of Canadian law and governance, alongside exceptional natural beauty. Beirut is perceived as a liberal oasis in West Asia and has been fast growing since the end of Lebanon's long civil war. Melbourne is seen as a safe city with an excellent climate, located in relative proximity to Southeast Asia's population centers. While the particularities of desirability change from place to place, these cities are invariably considered good locations for investment and are thus magnets for real estate investment capital.

In response to the challenges posed by zombie urbanism, many jurisdictions are exploring tools to reduce its incidence. Paris introduced a 20 percent tax on second homes in 2015 and increased it to 60 percent in 2017. As a result, second-home owners pay 50 percent higher property tax than owners of primary residences.[23] Vancouver enacted its Empty Homes Tax in 2016, which charges an annual 1 percent tax on the assessed property value of units that are unoccupied for more than 180 days per year. Melbourne enacted its Vacant Residential Property Tax in 2017, which applies to sixteen areas of the city and imposes a 1 percent annual tax on properties that are unoccupied for six or more months of the year, regardless of whether they are continuous. Washington, DC, and Oakland, California, have their own versions of vacancy taxes. In 2020, Hong Kong, Toronto, and Los Angeles were among cities debating whether to implement vacancy taxes.

It has long been accepted that recreational properties sit empty for much of the year. A modest cabin on the edge of a lake, a few hours' drive from the city, is expected to be vacant most of the time. However, as the number, location, and extravagance of secondary homes have shifted, accepted norms are being challenged. In some locations, recreational properties have increased exponentially to the point of forming entirely new types of urban environments. For example, Spain's Mediterranean coast from Valencia to Málaga merges the globalized tourist economy with finance capitalism's predilection for real estate investment by providing a vast linear city of secondary vacation homes for Northern Europeans. This collection of megaprojects transforms recreational properties into a distinct urbanism of epic proportions.

Zombie urbanism is now a defining attribute of the contemporary city, yet dominant modes of designing, managing, governing, and conceptualizing the city rely on assumptions of certain levels of occupancy. Basic decisions regarding provisions of services and scaling of amenities are based on historic notions of occupancy for their integration and deployment. Zombie urbanism upends these assumptions and problematizes myriad aspects of urbanism. New York State Senator Liz Krueger recalls, "I met with a developer who is building one of those billionaire buildings on Fifty-Seventh Street, and he told me, 'Don't worry, you won't need any more services, because the buyers won't be sending their kids to school here, there won't be traffic.'"[24] As ongoing vacancy is normalized, should cities rethink zoning requirements, infrastructure, and public services? Given the long-standing correlation between the number of housing units and population density, the separation of the two presents a challenge to the operation and management of cities. When population drops 10 percent in an area, it can be the make-or-break difference for local stores and services. In this way, zombie urbanism can translate into vacancies not only in residential space but in locations that are more visible, such as commercial storefronts.

The vacancies of zombie urbanism are not the result of an overt system failure, deficiency, or calamity, as in the postindustrial Ruhr Valley or in post-Katrina New Orleans, but rather a vacancy of success. This vacancy emerges not from oversupply or low demand, or in relation to a declining job market, but instead tends to exist within the context of both strong demand and economic growth. Buildings sell out, developers make profits, governments collect fees, and property values often continue to escalate, yet things remain not quite alive.

Ghost Urbanism

While zombie urbanism is defined by a state of reduced occupancy that operates in its own form of success, ghost urbanism is distinguished by two primary differences: higher vacancy and the perception of failure. Ghost urbanism's radical departure from intended levels of occupancy renders a space experientially dead and leads to an overt perception of failure—most commonly a noticeable and persistent amount of unsold or incomplete housing units that may be in a state of decay.

As increased capital flows into real estate, exaggerating periods of expansion and subsequent contraction, a disposition toward overbuilding results in mass vacancies. This resonates with the Austrian-born economist Joseph Schumpeter's "creative destruction."[25] As David Harvey states, "Under capitalism there is . . . a perpetual struggle in which capital builds a physical landscape appropriate to its own condition at a particular moment in time, only to have to destroy it, usually in the course of a crisis, at a subsequent point in time."[26] Ghost urbanism, which occurs when something has ostensibly not gone according to plan, is always a form of crisis, and its spaces of crisis can be found throughout the world.

While there is no shortage of ghost conditions, exceptional insights can be found in the boom and bust that pivoted around 2007 to 2008 in Ireland and Spain. In many respects, these countries experienced the most radical relative transformation during the global economic crisis, a crisis that centered on the financialization of housing. The ghost conditions that emerged in these countries persist today and offer poignant portraits of the ruthless vicissitudes of built territory operating primarily as an investment asset.

Ghost Urbanism in Ireland

The Irish property boom, commencing in approximately 1995 and lasting until roughly 2007, radically altered the nation's landscape. During this period, more than 750,000 units of housing were constructed, amounting to approximately 40 percent of the total housing stock in Ireland at the time.[27] As the boom gained momentum between 2001 and 2007, an average of 70,000 units of housing were constructed each year, with more than 90,000 in 2006 alone.[28] In a country with a population of nearly 4.6 million, this translates into 18 units per 1,000 people per year, giving Ireland, along with Spain, the highest rate of construction in the European Union and nearly triple the rate of the next-highest nation, France.[29] This construction blanketed the entire island in everything from urban perimeter blocks to peripheral megaprojects, exurban commuter estates, and a proliferation of one-off rural houses. And the boom was not constrained to housing. Millions of square feet of shopping malls were constructed, resulting in the second-highest per capita area of shopping malls in Europe.[30] Nearly 13 million square feet (1.2 million square meters) of office space was constructed between 2000 and 2007.[31] Between 2004 and 2008, more than 18,000 new hotel rooms were built.[32] At the zenith of the property boom in 2006, the construction sector in the Republic of Ireland accounted for €37 billion ($47 billion), or nearly 25 percent of GNP.[33]