

OBSOLESCENCE



An Architectural History Daniel M. Abramson

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For Karl and Eliora

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Introduction

In the heart of New York's financial district in the spring of 1910 hundreds of workers labored day and night to demolish one of the area's mightiest structures. Thirteen years earlier upon completion in 1897 the three-hundred-foot-tall Gillender Building had been the world's loftiest office block, soaring sixteen stories into the air. Now the modern steel and stone tower, still structurally sound, was being brought back down to earth, brick by brick, beam by beam, to make way for a larger skyscraper (fig. 0.1).¹ The brevity of the Gillender Building's life startled observers. The *New York Times* pondered the motives of those who would "sacrifice it as ruthlessly as though it were some ancient shack." This was, reported the newspaper, "the first time that such a high class office building, representing the best kind of modern fire-proof construction, has been torn down to make way for a still more elaborate structure."²

The Gillender Building was not alone in its premature demise. In New York, the Grand Central Terminal (demolished in 1903), the Plaza Hotel (1907), the Western Union Building (1914), and the Tower Building (1914) were other major monuments razed after a generation or less. Elsewhere around the United States, Atlanta's thirty-year-old Fulton County Courthouse was wrecked in 1911. San Francisco's early skyscraping Mutual Life Building was gone in 1907, aged fourteen. Chicago lost a slew of pioneering skyscrapers at this time, from the nine-story Montauk Building (demolished in 1902) to the fifteen-story Champlain Building (1915), as well as the Continental Bank, Rand-McNally, and Trude buildings, all brought down in 1912. None of these Chicago buildings had stood for more than twenty-eight years. Back in New York, the Pabst Hotel "must about hold the record for speedy obsolescence," reported a real estate journal: the hotel lasted just five years (1898–1903).³



FIGURE 0.1. Gillender Building, New York, constructed 1897, demolished 1910.

What to make of this phenomenon, this “doctrine of the ‘scrap heap,’” the magazine *Scientific American* editorialized in 1910 upon the occasion of the Gillender Building’s end?⁴ A real estate executive, Cecil Evers, offered that the Gillender had reached the “limit of its commercial life [. . .] no longer able to earn a proper return on the land it stands on.”⁵ In other words, the building’s worth had dropped so precipitously that the only alternative appeared to be demolition and rebuilding. Evers in 1914 did not yet use the term *obsolescent*. But that was the process of sudden devaluation and expendability he described. In the 1910s, as this kind of obsolescence became endemic in American downtowns, real estate experts began asking pointed questions:

What caused architectural obsolescence? Were there principles and a logic to the process? What were its variables and variations? Could it be managed or even made beneficial? Faced with these questions, the American commercial real estate industry inaugurated study of architectural obsolescence. Basic answers soon began to be formulated.

Obsolescence, it was surmised, came about as a result of changing technology, economics, and land use, in which the new would inevitably outperform and devalue the old. Obsolescence's basic axioms were that architectural function and worth were quantifiable and necessarily decreased over time. Different types of buildings, it was also theorized, obsolesced at different rates—hotels, for example, faster than banks, since the former were more vulnerable to quick changes in style and taste. As an antidote, experts counseled that careful management of a building's design and adaptability might defer obsolescence. But it was still best to plan for replacement. It was noted, too, that there were ways to benefit financially from obsolescence within the depreciation allowances of the recent U.S. corporate income tax code by writing off the building investment as rapidly as possible to decrease tax liability. By the early 1930s the American commercial real estate industry felt it understood obsolescence, even if the process was essentially unpredictable. No prophecy was certain; the factors were too many, too complex, and too contingent. Still, the fundamentals were settled, especially regarding tax benefits. So the American real estate industry lost interest in the issue and never looked carefully at it again.

But this was hardly the end of the story. In fact, it was just the beginning. Presumptions of architectural obsolescence and shortened building lives had entered American popular consciousness in the 1920s through dissemination of the real estate industry discourse on the subject. Soon afterward American urban planners began applying the concept of obsolescence to neighborhoods and cities. When planners used it, the term *obsolete* designated substandard housing, health, and especially economic performance in entire urban districts. After World War II whole neighborhoods were explicitly deemed obsolete and primed for renewal, not just in the United States but in Europe as well, including in communist countries. Multiple conceptions of architectural obsolescence encompassed single buildings and whole cities, in capitalist and socialist societies alike. By 1960 nuanced and varied concepts of obsolescence had become ubiquitous worldwide in architectural thinking, a dominant paradigm for understanding change in the built environment. "The annual model, the disposable container, the throwaway city have become the norms," observed the American preservationist James Marston Fitch, who was fighting fiercely against demolitions at this time.⁶

How did architects and others react to the rise of the obsolescence paradigm? That is this book's key question. Just as there were plural conceptions of obsolescence (commercial and urban, capitalist and socialist, American and European), so there were multiple architectures of obsolescence, that is, different ways that design might respond. Engagement with obsolescence underwrote a diversity of mid-century architectural strategies, especially in the 1960s. Open-plan interior flexibility accepted and absorbed the changefulness of obsolescence. Modular megastructures joined together long- and short-life components. Visionary architecture that lasted a short moment embraced the promise of obsolescence, its opportunity for new choices, and its liberation from the past and convention.

Other responses of the 1960s were less accepting of obsolescence's logic. All over the globe, concrete brutalist buildings reasserted traditional values of permanence and durability. In the developed world, proponents of historic preservation, adaptive reuse, and architectural postmodernism revalued seemingly obsolete objects, finding new beginnings where others saw only endings. Ecological design sought to safeguard rather than discard existing resources. All together, these counterstrategies to obsolescence might be gathered under the heading of *sustainability*, in that they valued conservation over expendability. Today sustainability, which arose from the struggles over obsolescence in the 1960s, stands as the dominant paradigm for conceptualizing and managing architectural change. Yet obsolescence persists, as evidenced, for example, by the rapid pace of renewal in contemporary Chinese cities.



As prevalent as the notion of obsolescence has been in architecture and urbanism during the past century, its history has not been traced until now. This book maps the invention and rise of the obsolescence paradigm in all its varieties and then explores in detail the multiple architectural responses to obsolescence.

But first, how is obsolescence different from other effects of time addressed by architecture? Obsolescence has a particular temporality that differs from those of historical memory (in which new buildings are designed to look like those of the past), natural mutability (in which structures naturally change or decay), procession through space (in which we are aware of the time it takes to move through buildings), or even what the architectural historian Marvin Trachtenberg recently dubbed "durational building," which takes into account the time needed to construct the building. In contrast to all of these, obsolescence instead is principally engaged with the temporality of use—and disuse—that goes beyond creators' intentions or individuals' experience of

place.⁷ How does a building change over time in use and value? This is a distinctive species of impermanence. Much has been written about the idea of impermanence in architecture in relation to portability and adaptability; decay, weathering, and warfare; and ephemerality and the unfinished.⁸ But the kind of impermanence found in obsolescence is a process of devaluation imposed upon architecture that is not intentionally short-lived, unfinished, or lightweight. Before the twentieth century, buildings were subject to obsolescence, to be sure: Renaissance fortifications, for example, became outmoded owing to developments in siege technology. But not until the twentieth century did obsolescence come to be understood as a general condition of change in architecture and cities as a whole—a relentless, universal, impersonal process of devaluation and discard.

When people have written about obsolescence they don't generally consider its architectural aspects. What literature exists on the subject focuses mainly on postwar twentieth-century consumer society and its flood of cheap, expendable commodities, with related attention to waste as obsolescence's "shadow world," the remainder that haunts modernity, as sociologist John Scanlan has written.⁹ But architecture is not typically included in these studies. Nor has obsolescence received much more than passing mention in architectural history.¹⁰ Understanding obsolescence has been the subject of some mid-century American urban history. Studies of "blight" and "creative destruction"—the latter being the very essence of capitalism, in the economic historian Joseph Schumpeter's terminology—have deepened our understandings of cities' redevelopment.¹¹ "It was the concept of obsolescence that redevelopers wielded as a weapon to remake downtowns," explains the historian Alison Isenberg.¹² Thomas W. Hanchett produced a provocative essay linking tax depreciation rates to 1950s shopping center construction.¹³ By the middle of the twentieth century, accelerated devaluation and replacement was believed to be, in Max Page's words, a "self-evident, unquestionable, and inevitable" process of metropolitan change.¹⁴ Obsolescence was not merely an economic condition, it could also vivify cultural growth and change. The critic Marshall Berman's *All That Is Solid Melts into Air: The Experience of Modernity* uses New York City's redevelopment to frame analyses of literary and artistic responses to accelerated change. Berman concludes that the "struggle of radically opposed modernisms gave the life of the 1960s much of its coherence and excitement."¹⁵ Yet obsolescence has a much wider and deeper ambit beyond 1960s New York. It is a worldwide phenomenon that has found various expressions across time and space. If we had to pick an epicenter, a better case could be made for Chicago than New York as the capital of obsolescence. The Windy City's 1920s demolitions encoded American building life-span

numbers in tax rules and the popular imagination. It was the setting for seminal obsolescence research, for vivid architectural work by Buckminster Fuller and Ludwig Mies van der Rohe, and for pioneering preservationist protests in the late 1950s against obsolescence's depredations.

Chicago's intensive engagement with obsolescence reflected its freewheeling capitalist economic dynamic, where business set the pace for quick change in the built environment. Correspondingly, the study of obsolescence offers particularly rich insight into the relation between architecture and economics, for the concept of obsolescence arose from nineteenth-century accounting and business practice before entering twentieth-century architectural thinking and design. Obsolescence's emphasis on measurable performance and quantifiable value applies fundamentally economic thinking to the built environment. Obsolescence may thus be considered what the critic Fredric Jameson calls "mediations between the economic and aesthetic," a way of interlinking the two spheres. Jameson famously analyzed late twentieth-century postmodern space's embodiment of capitalist globalization, in the case of John Portman's design for the Los Angeles Bonaventure Hotel.¹⁶ The consideration of obsolescence expands and fine-tunes Jameson's approach. Obsolescence is both a broader theme, encompassing more of twentieth-century architecture, and a more closely focused one, concentrating upon a specific economic dynamic of capitalism, namely its process of rapid supersession and discard—Schumpeter's idea of "creative destruction."

Obsolescence as a process is almost by definition fundamental to capitalism. In the basic progression of money turned into commodities for sale, turned into more money to make more commodities—the endless cycle of $M-C-M'$ —the old must give way to the new, or the process of accumulation fatally seizes up. The problem is particularly acute for capital in the form of architecture, which is not so easily discarded as machinery or consumer goods.¹⁷ The capitalist built environment is a dynamic site of accumulation, subject to ceaseless disinvestment and redevelopment. Yet attitudes toward the fate of the physical fabric have changed. Alternatives to demolition discover the profitability of conservation. In architectural $M-C-M'$, C does not necessarily have to disappear for reinvestment to take place.

What, specifically, does looking at obsolescence teach about the historical relationship between capitalism and architecture? Manfredo Tafuri's 1970s landmark *Architecture and Utopia: Design and Capitalist Development* examined modern architecture's service to capitalism in crisis, in which the author saw architecture as providing images of urban order in the face of metropolitan chaos. Likewise, obsolescence can be seen as a concept that brings

order to the built environment, making sense of it by giving a name and logic to the seemingly irrational process of capitalist disinvestment and reinvestment. In his book, Tafuri argues that modern architecture lost its value to capitalism, as a conceptual pathfinder, in the wake of the Great Depression, when government technocrats, not urban visionaries, took charge of rebalancing economy and society: "Architecture as ideology of the plan is swept away by the *reality of the plan*."¹⁸ Yet the story of architecture's ideological usefulness to capitalism, managing change and crisis, did not end with the inception of centralized state economic planning. Rather, architecture's post-war engagement with obsolescence continued to work through problems of capitalist redevelopment, finding a multiplicity of design solutions, eventually including sustainability, to accompany capitalism's continued evolution.

Part of architecture's ideological work in capitalist society involves helping people acculturate to capitalism's unsettling demands. "All fixed, fast-frozen relations, with their train of venerable ideas and views, are swept away, all new ones become obsolete before they can ossify," wrote Karl Marx and Friedrich Engels in *The Communist Manifesto* (1848). "All that is solid melts into air, all that is holy is profaned."¹⁹ In this famous characterization of capitalist modernity, the process of obsolescence, the new ceaselessly superseding the old, seems to permeate experience. The eminent historian Eric Hobsbawm has asked, "How is it, then, that humans and societies structured to resist dynamic development come to terms with a mode of production whose essence is endless and unpredictable dynamic development?"²⁰ Part of the answer lies in the work of architects in their struggle with obsolescence, finding creative ways to acknowledge and even reconcile that fundamental contradiction between constancy and change, which Hobsbawm identifies as central to the capitalist life world. Subtle solutions as well as perplexities were found in architects' designs, more than in their words, to accommodate radical change, yet maintain a continuous identity. Architecture and its history have lessons to teach about coming to terms with capitalism.

More broadly, obsolescence concerns not just economics but philosophy, feeling, and expression. How do we face up to ends? How manage the grief of loss? What architectural values exceed measure? To grapple with these questions requires looking beyond the economic logic of obsolescence—measurable performance, competition, supersession, and expendability—which offers no deeper human meanings. Opponents of obsolescence in the 1960s pressed at these blindnesses of the paradigm. They sought to rehabilitate the obsolete, to redeem its waste and revalue what exists. Sustainability thus emerged from the contradictions of obsolescence. One worldview

shaded into another, exploiting its tensions, solving its problems, yet not completely superseding it either. As a result, obsolescence continues alongside sustainability.



This book is structured to look first at the circumstances, mainly American, that created perceptions of obsolescence, and then in the middle and later chapters at the architectural responses to obsolescence around the world. Chapter 1 surveys how change was perceived in Western architectural culture prior to the twentieth century. Then the commonplace demolition of recent buildings impelled the invention around 1910 of the idea of architectural obsolescence, most coherently in the writing of the New York engineer Reginald Pelham Bolton. The notion of determinate building life spans was further analyzed and propagated in the 1920s by the Chicago-based National Association of Building Owners and Managers, led by its executive, Earle Shultz, with the aim of securing favorable tax treatment. By the early 1930s the idea of architectural obsolescence had come to be widely publicized in the American popular imagination, coincident with rising consumerism in the 1920s, which also viewed expendability as inherent to progress.

In the 1930s and 1940s, chapter 2 shows, American city planners expanded the idea of obsolescence to the urban and social realms. Boston's West End neighborhood was an exemplary site for the articulation of urban obsolescence ideology in the 1950s at the hands of planner Frederick J. Adams, using evaluation methods produced by the American Public Health Association. Variant ideas of urban obsolescence were deployed by communist planners and were also present in Britain, Japan, and elsewhere. While most prevalent in America, all these discourses and practices of obsolescence contributed to the general perception, by the late 1950s, that obsolescence had become the primary framework for understanding and managing architectural change, on a scale ranging from individual buildings to whole cities, governed by principles of measurable performance, competition, supersession, and expendability.

Ideas and design responses to obsolescence are this book's materials, not actual data on building life spans—in part because only in the rarest instances has such information been compiled (e.g., in Chicago in the 1920s and in London in the 1960s). The discourses of obsolescence have seldom been empirical; more usually they are rhetorical, repeating clichés and myth. "Nowadays almost every building becomes obsolete before it is ready to fall down," went one mantra, voiced by the British obsolescence researcher Peter Cowan.²¹ Much of the discourse on architectural obsolescence was frankly

fantastical. Despite the widespread use of fixed building life-span numbers, for example, buildings do not disappear on predictable schedules. Nor does progress constantly accelerate and supersede the old, as other tenets of the paradigm presumed. The historian of science and technology David Edgerton writes, "We have been told that we live with an 'ever-increasing rate of change,' yet there is good evidence that it is not always increasing."²² Edgerton cites coal, bicycles, books, and battleships as old technologies that have continued alongside the new, contradicting the axioms of obsolescence. Yet the myths of obsolescence had great power among architects and others. Faith in obsolescence, in quick-pace change and wholesale expendability, influenced multiple approaches to producing and designing, representing, and managing the built environment in the mid-twentieth century. Belief in obsolescence spurred equally fierce architectural innovation and counterreaction across multiple contexts.

Chapter 3 shows that architects responded to obsolescence at first by denial, holding fast to traditional values of permanence and finish. Only after World War II did they acknowledge obsolescence's promise, its apparent inevitability and potential gifts. All invocations of flexibility at this time reflected awareness of obsolescence. The British architectural historian and critic Reyner Banham preached an "aesthetics of expendability."²³ "What we need is more obsolescence, not less," declared the American industrial designer George Nelson in a well-known article from 1956.²⁴ At the University of London, the architect Richard Llewelyn Davies organized extensive academic studies of obsolescence. Just as there had been numerous discourses on architectural obsolescence outside the discipline—in real estate, planning, and industrial design—so multiple outlooks also emerged within architecture. It was not in words, though, but in design that architects ultimately engaged most profoundly with obsolescence.

If the guiding modernist dictum of Louis Sullivan—"form ever follows function"—was to remain relevant in the age of obsolescence, the hard question arose: what happens to form when function changes?²⁵ The 1960s was the decade of the most intense confrontation with obsolescence, as chapter 4 shows. Architects of all stripes and nationalities sought to fix obsolescence in function and image through design. Some of those who engaged most fruitfully with obsolescence were architectural history's usual midcentury modernist heroes, like Banham. Ludwig Mies van der Rohe's Berlin National Gallery embodied the factory-shed solution to obsolescence, allowing great internal flexibility that was meant to ensure continued usefulness in a variety of metamorphosing conditions. The American Louis Kahn's Salk Institute pioneered the interstitial system, which stacked one factory loft space atop an-

other. Megastructures, with plug-in capsules and long-life frames, often associated with the Japanese Metabolists, harmonized differential rates of change and replacement. Experimental visions like the Britons Peter Cook's Plug-In City and Cedric Price's Potteries Thinkbelt sought to image the process of obsolescence in design itself. Equally important in the history of obsolescence were more eccentric figures from the 1910s through the 1960s, like the American engineer and obsolescence theorist Bolton, the building manager Shultz, the city planner Adams, the American architect Ezra Ehrenkrantz (who devised flexible school-building systems), and the British architects Richard Llewelyn Davies and John Weeks, who theorized and designed for expendability. Llewelyn Davies and Weeks's immense Northwick Park Hospital allowed for growth and attrition in the overall form as it might obsolesce. The various architectures of obsolescence ran the gamut from accepting that obsolescence *would* happen to believing that obsolescence *should* happen, embracing its liberation from history and habit.

But just as many others were horrified by obsolescence's implications, its transience and waste, and sought obsolescence's reversal, as chapter 5 recounts. Increasing numbers of buildings ancient and recent were falling to the wrecking ball, including landmarks of industrial civilization just a few generations old, like New York's Pennsylvania Station and London's Euston Station. Internationally, it seemed an age of "historicide," as Rudy Koshar, a historian of Germany, has written.²⁶ In response, critiques of obsolescence emerged in American culture, as in the writings of the urbanist Jane Jacobs and the journalist Vance Packard. Similarly, architectural countertactics to obsolescence gathered steam across the decade of the 1960s. Permanence was the virtue of concrete brutalism like Paul Rudolph's buildings in New Haven, Connecticut. Revived historic preservationism, adaptive reuse, and gentrification throughout the developed world, along with the stylistic postmodernism of Kahn and the Italian Aldo Rossi, all had in common the revaluation of the architecturally obsolete. In the 1960s a contest of ideas and tactics was thus waged between those who accepted obsolescence's logic and those who did not. The sides were arguably balanced, equally intense and imaginative, until the early 1970s, when the weight of internal contradiction in the obsolescence paradigm combined with historical circumstances to terminate the dominance of that paradigm, highlighted by the 1973 oil crisis, which ended an era of abundance and futuristic optimism.

Subsequently, obsolescence gave way to its ostensible opposite: the paradigm of sustainability, defined here as all those tactics intended to conserve rather than expend existing resources, natural and manmade. Buildings like the 2005 German Federal Environment Agency in Dessau feature energy

conservation, renewable materials, and sensitivity to historical context. Thus we see emerging from mid-century engagements and struggles with obsolescence a prehistory of sustainability. Yet even as sustainability ascends, the two paradigms coexist. Sustainability inherits obsolescence's obsession with measurable performance, now for energy efficiency. The obsolescence mentality persists, too, in Chinese cities' and American suburbs' demolitions, in the work of the architect Rem Koolhaas, and in other contemporary architecture. What we learn from obsolescence, in the book's concluding chapter, is not just the historical background of sustainability, but, more important, that paradigms of change are themselves changeable creations. The idea of architectural obsolescence was invented to solve problems of capitalist redevelopment. Sustainability in turn addressed the blindnesses of obsolescence. What then, we might ask, of sustainability itself? What difficulties does it leave unresolved? What might this worldview's contradictions be, the forces acting upon it, and sustainability's fate for the future?

The overarching presumption of this book is that architectural objects reflect history and theory, but also work against their grain. There are tensions and struggles in design and building that go beyond illustrating simple historical or theoretical conclusions. Instead, form points to deeper, more conflicted levels of thinking about obsolescence and change than is otherwise verbalized. Price's Potteries Thinkbelt project, for example, represents a profoundly ambivalent meditation upon obsolescence, welcoming its gifts yet recognizing its limits. The purpose of this book, ultimately, is to address the open questions of historians like Hobsbawm, asking how people "come to terms" with modernity—here by looking at the built environment. In other words, what can architectural history teach history that might not in other ways be learned?