Obsolescence: Notes towards a history
(2003)

The Austrian economic historian Joseph Schumpeter in 1942 offered this classic definition of capitalism, based upon the study of American heavy industry:

That incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one. This process of Creative Destruction is the essential fact about capitalism. It is what capitalism consists in and what every capitalist concern has got to live in.¹

In American architecture, near the time when Schumpeter arrived in the United States, H. H. Richardson's famous Marshall Field Wholesale Store (Chicago, 1884-1886), only forty-four years old, tumbled in 1930 beneath the wrecker's ball, to be replaced by a parking lot. In Chicago again, two years earlier, another pioneering modern structure, the steel-frame Tacoma Building by Holabird & Roche (1887-1888), met a similar fate at the age of forty-one, replaced by a taller skyscraper. These demolished landmarks and others in the central business districts of Chicago, New York, and other American downtowns had been generally unaffected by the normal physical wear and tear of depreciation. Instead, they passed into functional and, most importantly, financial obsolescence from external "causes outside the physical condition of the building itself," unable to produce maximum profits for their capitalist owners.² The loss of these buildings and the issue of obsolescence generated considerable study in the first decades of the last century. Defining obsolescence's difference from physical depreciation, the accountant Joseph Klein explained in 1922:

Obsolescence, on the other hand, connotes much more sudden and uncertain displacements or losses in value ... we think of it as resulting in destruction of values due not to physical uselessness, but rather to decreased worth predicated on a comparison of the greater efficiency of new devices over older ones.³

The fates of the lost buildings, alongside Klein's definition of obsolescence emphasizing economic worth, "efficiency," and "sudden and uncertain ... destruction of values," recall Schumpeter's definition of capitalism as a "process of Creative Destruction." Indeed, it is possible that the visible churning of the American urban built environment at the moment of the emigre's arrival shaped his theorizing upon capitalism's
fundamental process of change. Obsolescence as a paradigm for comprehending and managing change—based upon principles of innovation, competition, measurable performance, supersession, and expendability—may be said to be the capitalist model of development *par excellence*: a ceaseless process of production, consumption, discarding, and reinvestment. Under obsolescence in a capitalist economy, buildings come to be perceived as income-producing commodities with finite life spans, to be erected, destroyed, and replaced in tempo with capitalism's chaotic "Creative Destruction." Yet as central as obsolescence may be to understanding architecture under capitalism, there has been no study of the early-twentieth-century origins of the discourse of obsolescence. Nor has obsolescence's general relevance to twentieth-century architectural design and theory been much explored, despite obsolescence's thematic presence in work as varied as the extreme flexibility of Archigram's Plug-in City or Louis Kahn's poeticizing his buildings as ruins.⁴

**The analysis of obsolescence**

The early-twentieth-century discourse on obsolescence aimed in part to explain the unexpected demolition of a series of late-nineteenth-century commercial structures. In New York the sixteen-story Gillender Building at the prominent corner of Wall and Nassau Streets came down in 1910 after a mere fourteen years of life.

In Chicago the Women's Christian Temperance Union Temple (1890-1891, Burnham & Root) fell in 1926, the Tacoma Building (1887-1888) in 1929, the Marshall Field Wholesale Store (1884-1886) in 1930, and the Home Insurance Building (1884-1885, W. B. Jenney) in 1931. Each of these major losses occasioned a study of the demolished building's obsolescence published by the Chicago-based National Association of Building Owners and Managers (NABOM).⁵ Surveying in 1930 the dramatic overall impact of obsolescence in New York and Chicago's central business districts, NABOM asserted that there were few if any buildings over forty years of age left on Lower Broadway near Wall Street, and that "practically the entire Loop district of Chicago had been rebuilt twice" since the Fire of 1870, and much of it three or four times over.⁶ The results of NABOM's obsolescence studies were widely disseminated in the architectural and popular press, being seen of general importance to understanding contemporary architectural and urban developments.⁷ Additionally, the pioneering book-length study of obsolescence, preceding NABOM's efforts, entitled *Building for Profit: Principles Governing the Economic Improvement of Real Estate*, by the New York engineer Reginald Pelham Bolton, went through three editions between 1911 and 1922.

The specific building studies of the late 1920s and early 1930s substantiated these general analyses. Richardson's Marshall Field Wholesale Store suffered already in the 1890s in its Midwest
wholesale trade from the competition of chain and mail order stores. Then the building itself proved inadaptable to more profitable retail use due to Richardson's high six-foot masonry base (which could not accommodate sidewalk-level storefront windows and entrances) and to sagging interior floors caused by incomplete understanding in the 1880s of the necessary depth for the foundations. As the engineer John Robert observed in 1930, "The Marshall Field Wholesale building was obsolete probably ten years after it was completed." The Tacoma office building fell in 1929 due to a different combination of factors, which included inflexible interior arrangement stymied by load-bearing, wind-bracing walls; unstylish and inefficient lighting fixtures; and a "general atmosphere of antiquity." But, explained the engineer Paul Holcombe, "probably the most notable instance of obsolescence in the Tacoma Building was the elevator equipment," which was too small, too slow, and open at the top and so dropped grease on passengers. Ultimately, the accumulation of obsolete parts in the Tacoma Building proved simply too expensive to fix, and so "although the building was earning an adequate return on the investment ... the return figuring present values of the property was very small." In other words, an antiquated building underexploited a lucrative site.

As Holcombe's last observation indicates, a building's site appeared to represent the key factor in its obsolescence. Shultz concurred: "Office building rents are, in the last analysis, determined by the building's strategic location with regard to the center of traffic," and he concluded his 1922 study by suggesting that the best way to extend the profitable life of an office building was to build "on the edge of the present business center in the path of its future growth." The other main generalization from these studies was that, as Bolton put it, "the useful or economic existence of all classes of buildings, in the rapid march of modern conditions, is constantly shortening."

The Ideology of obsolescence

The analyses of modern obsolescence were backed up by an impressive array of charts, tables, and graphs. In Bolton's seminal analysis, each building type from banks to hotels received its own "life in years," or "assumed life" number based upon projected changes in use and fashion: forty-four to fifty-five years for banks to fifteen to eighteen years for hotels. Other tabulations broke a building down into its dozens of structural and mechanical parts, from foundations and frames to plumbing and paintwork, with each component assigned a "date of expiration of life," or "expectancy of life" anywhere from seven years for paint to seventy-five years for fireproof steel. But the apparent certainty of these actuarial tabulations obscured the fundamental uncertainty of the analysis. "It is almost impossible to calculate the proper annual write-off for obsolescence," explained the accountant Klein in 1922. And indeed, estimates of an average building's lifespan varied across the studies. Bolton came up with figures of 35.52 and 48.36 years. Shultz settled on 30 years, a figure publicized by the New York Times in 1931. The real estate executive George T. Mortimer claimed, "It has been my experience that most buildings over 20 years old cannot be made to pay." Nevertheless, the tables and charts, precise numbers and decimalizations, lent in total an air of scientific objectivity to the discourse on obsolescence.

Alongside the display of apparent quantitative certainty, the obsolescence studies in their rhetoric also employed poetic metaphor to persuade readers of the naturalness of
obsolescence. Shultz concluded his 1922 study by asking, "The county provides a home for poor and aged human beings, but what shall we do with the obsolete and unprofitable office building?" Bolton, too, used an anthropomorphic simile to drive home a crucial point:

"[A]ge is in itself a bar to complete desirability and full effectiveness, and a building though in excellent condition, if it be out of fashion, out of date, antiquated, or insignificant, is just as liable to fall behind in the race, or to favor of younger rivals, as the still vigorous man or woman similarly circumstanced."

Similarly, H. J. Burton in 1917 declared that obsolescence was "as certain and ever-present as the forces of nature." And Bernard London asserted in a 1932 book titled *Ending the Depression through Planned Obsolescence*, "We must work on the principle of nature, which creates and destroys, and carries the process of elimination and replacement through the ages."

These metaphors served the rhetorical purpose of naturalizing the discourse on obsolescence. To associate the "life" of buildings with the human life span rendered inevitable the "death" of the building. The naturalistic rhetoric denied the specific human agency behind the demolition of the buildings. In combination, the scientific-quantitative and poetic-rhetorical discourse on obsolescence could have two important effects: (1) to reassure the writers and their readers of the natural certainty of the phenomenon of obsolescence, and (2) to direct attention away from the particular economic and social interests directly served by the discourse on obsolescence.

In fact, the economic interest of NABOM in advancing an analysis of obsolescence was hardly hidden, at least from its membership of building owners and managers. Starting in 1918, United States law allowed obsolescence to be factored into the depreciation allowance building owners used to reduce their owed corporate income tax. From this point on, it was of vital importance for NABOM to produce membership surveys and statistical analyses of obsolescence to convince the US Treasury Department's Bureau of Internal Revenue and local tax appeal boards to raise the standard obsolescence allowance. Less "life" in the eyes of the law meant more profit for owners; though at the same time, owners in the actual management of their buildings would be trying to fend off obsolescence to lengthen the financial life of their property. NABOM's obsolescence studies were thus thoroughly political. They were a strategic discourse to create the illusion of statistical truth and short architectural "lives" in the eyes of the law, in order to influence public policy towards a greater tax subsidy for real estate capitalism. The building owners got their wish when, in 1931, the Bureau of Internal Revenue set an office building life span number of forty years.

**Promiscuity and sustenance**

From the perspective of understanding architecture under capitalism, the discourse on obsolescence focuses attention on buildings' increasingly composite character, made up of a myriad of components and systems, not all controlled by the architect's design process and each having its own limits of usefulness and durability. From a critical perspective the discourse on obsolescence focuses attention on capitalism's economic definitions of architecture and in particular the legal-fiscal nexus
of tax law and policy that created the axiomatic but now clearly capitalist notion of a building’s "life span." Above all, the discourse of obsolescence focused on architecture's temporality.

The temporality of architecture under capitalism is the time of use, and particularly financial utility for the capitalist owner. But the temporality of use may be the dimension of architectural time most challenging to contemporary practice, having little to do with the traditional architectural temporalities of history, nature, or experience in space. At least since the Renaissance, the architect's ideal role has been to sire architecture: to beget a building by design and then to move on to further acts of procreation. The designing architect does not, and is not encouraged and rarely paid to, sustain, nourish, and nurture the building through its useful life and obsolescence. Promiscuity thus lies at the heart of ideal Western architectural practice, a temporally brief social exchange between architect and client at a building's conception and then abandonment by the architect for future productivity elsewhere. This is a situation that suits both parties. Capitalist ownership brooks no interference in the subsequent exploitation of its architectural property, whatever the consequences for society. And architects' economic livelihood and self-identity is a function of the quantity of production rather than of the sustenance through time of a few well-raised offspring. But the discourse of obsolescence teaches above all that the life of the building matters, and implicitly it makes the sustenance of this life its highest priority.

Perhaps, then, for contemporary architecture to work through its situation under capitalism it will be necessary to question promiscuity and to find a place for sustenance. The architect would try to do more than serve for a brief time a building’s legal and economic owner. She or he would instead try to sustain the building’s usefulness and meaningfulness throughout its life, for its inhabitants, for its community, and for its society. This would be the response not of a victim, celebrant, or ideologue of capitalism, but of a critical realist understanding architecture's historical relationship to capitalism and redirecting capitalism's social effects through architecture.

4 But see the work in progress, Daniel M. Abramson, "Obsolescence: The fate of architecture in the twentieth century."

6 "Ask for more equitable obsolescence allowance," *BNABOM* 153, December 1930, p. 107, including "Chart 1: Chicago office buildings demolished to make way for new structures."


9 Ibid., p. 75.


13 Ibid., p. 32.


15 Ibid., p. 220.

16 Bolton, *Building for Profit*, p. 68.


19 Bolton, *Building for Profit*, p. 22 and Table C.


21 Quoted in Burton, *Valuations and Depreciations*, p. 6.


24 Burton, *Valuations and Depreciations*, p. 78.


26 Klein, "Depreciation and obsolescence."

27 See, for example, "The obsolescence questionnaire," *BNABOM*62, January 1922, p. 131.