

the masters we revere for their formal expertise understood their work as a critique of capitalism. Whether they were largely deceived in their faith in this critique, as Manfredo Tafuri claims, does not disallow the affect it had on their work. The hope is that this anthology will open up debates about the relationship of architecture and capitalism that include non-Marxist orientations. There must be a contemporary Ayn Rand out there that architecture could hear from.

All of this intellectual positioning shapes scholarly allegiances and the choice of authors invited to contribute to this volume; so does appreciation of the expertise of the authors in the relevant periods. Still, in almost every case, the authors brought something much newer and unexpected to both the topics and to their analyses than had been imagined, such that the book as a whole has taken on a life of its own, one that is considerably richer than the one planned and certainly much more fun to be a part of. I am indebted to all of them for both the wealth of information that they have brought to the table and for their enthusiasm and commitment to the topic of this book.

Chapter 1

Context: 1800–1860

Morality, progress, and criticism of progress: all of these were bound up in the architectural thinking of the nineteenth century, as witnessed by the moral fervor attending the Gothic Revival as it reacted to the Industrial Revolution. John Ruskin for his belief in the moral labor that seemingly attended the making of the Gothic; William Morris for his support of the vernacular epitomized by medieval ad hocism;¹ Augustus Pugin for the Gothic style's link to Catholicism: these were varied projections put on the Gothic as the architectural community fashioned a way to take a stance against the physical indignities that accompanied the Industrial Revolution.

Placed in the context of a market economy, the Gothic Revival was a shock response to the full-blown emergence of capitalism, itself a latent reaction to the rise of mercantilism in England over the two centuries prior. Mercantilism is a nascent form of capitalism in that labor is contractual, and trade is made for profit. This early capitalist economy was preceded by the collapse of the medieval manorial system in England, which created a class of free tenant-farmers. Rather than relying on fealty and taxation, Lords had to hire labor to work their estates, thus creating incentive to invest in efficient production technologies.²

During a concomitant period of enclosure, public lands were transferred to these same large (aristocratic) landowners who used the surplus to graze sheep rather than produce food. As England's wool exports grew in the fifteenth century, the process of single-owner land expansion accelerated, forcing many tenants to give up farming and seek wage-labor.³ Yet commodities were still produced by non-capitalist production methods. Merchants operated within large monopolies backed by state (i.e. royal) control and state subsidies, such as the British East India Company, in which the state superseded local guilds as economic regulator. This period also saw overseas merchants "discover" new lands, resulting in the rapid growth in overseas trade.

Economic theorists, led by Adam Smith, challenged fundamental mercantilist doctrines. In *The Wealth of Nations* (1776), Smith sought to reveal the nature and cause of a nation's prosperity, therein introducing the terms and tenants of

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industrial capitalism. One of these was his famous dictum that the laborer is “led by an invisible hand to promote an end which was no part of his intention,” his intention being selfish but the outcome benefitting all in the expansion of the economy. Another lasting notion was his production of pins analogy supporting the division of labor: ten workers could produce 48,000 pins per day if each of eighteen specialized tasks was assigned to particular workers, but absent the division of labor, Smith pointed out, a worker would barely be able to produce one pin per day.

In the 1830s, reality caught up with these theoretical observations. England’s economy became characterized by a competitive labor market, the investment of capital into machinery, the division of labor, the routinization of tasks, and the replacement of the merchant by the industrialist as the principal player in the economic system. Industrial capitalism had now emerged.

This new form of capitalism emerged with further theoretical assistance. In *Principles of Political Economy* (1848), John Stuart Mill posits that capital has nothing to do with the actual product produced, but rather with the purpose to which the labor of the product is put, which is to say, *productive reinvestment*. He also describes how the value of labor is not set by the product nor even by the sustenance of labor, but by the “convenience” of reimbursing skilled over unskilled labor. Mill was, in other words, expounding on the arbitrary nature of wages.

Karl Marx, a contemporary of Mill (but much less widely read; Marx’s *Kapital* was not translated into a volume in English until 1887),⁴ also analyzed the arbitrary nature of wages, but saw in it not just a fact of capitalism but rather its degrading essence. Marx’s historical perspective—his Hegelian dialectic of thesis (agrarian serfs), antithesis (capitalist manufacturing), and synthesis (communism)—and his social agenda—his anti-Hegelian, anti-idealism materialism (man’s alienated material, labor existence under capitalism)—were part of a larger awakening regarding social “progress” and historical determinism, as seen in the contemporary Victorian work of Charles Dickens and Charles Darwin.

It is in this tumultuous context that Robert Hewison examines the lives and work of contemporaries John Ruskin and Henry Cole. The former may be distilled as the revivalist “romantic,” the latter as the modern “pragmatic,” but in fact each man had a nuanced view of the economy and of the role of architecture and design within it.

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Notes

- 1 William Morris alone of these was a reader of Marx. He was a socialist in both practice—his workshop, Morris, Marshall, and Faulkner, being based on the guild model extolled by Marx; and in theory—his utopian novel, *News from Nowhere* (1890), speculating on a society where work was not paid for but voluntary and communally enjoyed.
- 2 Niall Ferguson, *The Ascent of Money* (New York: Penguin, 2008).
- 3 Quentin Skinner, *The Foundations of Modern Political Thought*, vol I: *The Renaissance*; vol II: *The Age of Reformation* (Cambridge: Cambridge University Press, 1978).

- 4 Marx’s initial volume of *Kapital* appeared in Germany in 1867, but did not appear in English until the journal *To-day*, under Hyndman’s editorship, began to serialize it in 1885. *Kapital* lacked an English translation in one volume until the publication of Engels’s edition in 1887.

Parallel to these economic policies was the development of the nation's natural resources: abundant coal in the Appalachian Mountains from Pennsylvania south to Kentucky, oil in western Pennsylvania, iron ore mines in the Lake Superior region. Steel mills thrived in places where coal and iron ore could be brought together, the birth of what in its decline is known as "the rust belt." The discovery of gold in California provided incentive to fulfill the popular notion of "manifest destiny," and as America moved west, infrastructure followed. Free land provided to farmers by the Homestead Act (1862) paved the way, in addition to land grants to railroad construction companies to open up the western plains and link the east coast to California. Besides drastically cutting the cost of moving freight, stimulating new industries such as steel and telegraphy, and encouraging the profession of civil engineering, the railroads were the first businesses to encounter managerial complexities, labor union complications, and problems of geographical competition. How they dealt with these problems as the first large-scale business enterprise became the model for most large corporations to come.

The organization of financing represented by and fueling Gilded Age tycoons was unprecedented, and marked the beginning of not just new industries but new forms of finance. On the organizational side, Frederick W. Taylor's "scientific management" re-calibrated the efficiency of worker production. His books describe the most efficient body movements for a given task as well as the high level of oversight needed to ensure control of workers' performance. On the labor side, the first significant labor union, the Knights of Labor, was created in 1869. The Knights collapsed in the 1880s and were displaced by strong international unions that banded together as the American Federation of Labor. These unions were often formed by immigrants who brought revolutionary ideals with them from Europe, as Merwood-Salisbury details. Factories created after the Civil War had attracted tens of thousands of European immigrants seeking high-wage jobs. In 1900, one-third of the labor supply were either foreign born or the children of foreign-born parents, making immigration a political issue for the first time, and entangling social politics with Anglo-American xenophobia. In part as a way to demonstrate their American bona fides, the AFL unions formally rejected socialism and negotiated with owners for higher wages and better working conditions—within the capitalism system.

These were the men and women who built the US in the twentieth century, piecing together and inhabiting the Chicago skyscrapers that instantly became the icons of global capitalism.

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Chapter 2

The first Chicago school and the ideology of the skyscraper

Joanna Merwood-Salisbury

The most celebrated products of the first Chicago school of architecture, a series of skyscrapers constructed between the early 1880s and the early 1890s, are not only monuments signifying the emergence of the modern style; they are also monuments to the institutions that powered the incredible economic growth of the United States in the nineteenth century: financial exchanges, banks, railways, insurance companies, and department stores. However, in modernist architectural histories the association between the form of these buildings and their economic function was not much discussed. By the 1940s they came to signify the spontaneous appearance of a modern aesthetic removed from the influence of European history and taste, unconsciously derived from new construction technologies.¹ This new building type, wrote the historian Sigfried Giedion, quoting Chicago architect John W. Root, should by its "mass and proportion convey in some large elemental sense an idea of the great, stable, conserving force of modern civilization."² While contemporary historians of the early American skyscraper have refocused attention on their origins in commerce and real estate development—"form follows function" has become "form follows finance"—a renewed understanding of the relationship between architecture and capital does not yet account for the broader social impact of capitalism on the culture of building in this place and time.³

From its first appearance in the 1880s the skyscraper was the subject of an ideological battle, the symbol of capitalism's triumph; it was also the target of anti-capitalist protest. The struggle to define its meaning was carried out in the press, including mass-market newspapers and magazines, and specialist journals aimed at architects and real estate interests (the *Inland Architect* and *Building*

Budget), as well as the newly radicalized labor movement, a movement dominated by the building trades unions (the German-language *Arbeiter-Zeitung* and the English-language *Alarm*). While anarchists vilified the skyscraper as an instrument of class oppression, architects, borrowing from European architectural theorists, published essays heralding it as the organic product of its environment, the entirely natural product of the evolution of European styles, particularly the Gothic, to the unique environment of the American Midwest.

By the 1930s the rhetoric of stylistic evolution espoused by Chicago architects was transformed into one of entirely positive technological and aesthetic revolution. The creation of the steel-framed skyscraper became viewed as a catalyst for the appearance of a new modern style in the United States, and any sense of ambivalence about, or resistance to, the symbolism or functions of the new building type was lost. This became the defining narrative of the first Chicago school of architecture, a narrative so successful that by the mid-twentieth century it had assumed the mantle of modern "mythology" in the sense described by the literary critic Roland Barthes: an historical construction whose ideological origins are suppressed. A rereading of the skyscraper through issues of class and labor helps recover the essential instability of the skyscraper as both form and idea, reminding us that these icons of modern architecture were the creation of a tumultuous historical period characterized by uncertainty and agitation brought about by "constant revolutionizing of production [and] uninterrupted disturbance of all social conditions."⁴

* * *

When Marx and Engels published the *Communist Manifesto* in 1848, their contemporary model for the capitalist city was Manchester, the city where Engels worked for his father's company and that Marx visited in exile from Germany.⁵ Though the industrial revolution that had begun in the Lancashire cotton industry in the eighteenth century had reached its most advanced form there, they believed the Mancunian model would soon spread all over the world, not only repeated, but also intensified. Indeed the future they predicted was already emerging in the present. In 1848, just as they were completing their tract, a new capitalist city was emerging on the North American frontier.

As Manchester was to London, Chicago was to New York: the second city, the place where things were made. While Manchester assumed the role of production and processing center for an empire, Chicago was designed to fulfill that role while it was still a notional mark on the map of world trade. As the environmental historian William Cronon has shown, the city was founded on the presumption of future greatness as a metropolis linking the northeastern seaboard to the American west.⁶ In 1822, the Federal Government authorized the Illinois and Michigan Canal Commission to build a waterway linking Lake Michigan and the Mississippi River. This was to be the western-most component of a vast transportation system connecting New York City to emerging agricultural markets in the west via the Great Lakes and the Erie Canal. The land on which

this canal was built was taken from Native American tribes under a series of treaties brokered and broken in the first decade of the nineteenth century. In 1830, the Canal Commission platted a town at the mouth of the Chicago River on the site of Fort Dearborn, a military camp built to secure the site during the recent land wars. Based on a simple grid plan with lots about 350 feet square, this town was a speculative venture, effectively an agreement between the Canal Commission (now the Canal Company) and prospective real estate developers: the company would provide business to the area in the form of river traffic, and the new landowners would provide the capital to build the canal. The venture was successful and the banks of the Chicago River were soon dotted with businesses serving the trade in goods. In the 1850s, canal traffic was supplemented by the railways and by the 1870s the city was threaded by train tracks bringing grain, lumber, and live animals to Chicago from the great plains, where they were processed for delivery back east.

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Joshua Hattaway
Jr., Chicago With
the School Section,
Wabansia and
Kinzie's Addition,
1834. The original
grid plan of Chicago
drawn up by the
Illinois and
Michigan Canal
Commission lies
over the main
branch of the
Chicago River in
the middle of the
image. Additions
to the grid are
shown to the
north and south.
Courtesy Newberry
Library



By 1890 Chicago more than exemplified the characteristics of what Marx and Engels called the "bourgeois political economy": a large city controlling the economy of a vast productive landscape around it, created to serve the global market; the agglomeration of a large labor pool, made up in this case of recent immigrants, first from England and Ireland and more recently from Germany and Eastern Europe; the concentration of property in the hands of a few, many living far from the city in Boston, New York, and Philadelphia; and the constant revolutionizing of means of production driven by the need to reduce the cost of labor, in particular the introduction of mechanization into agriculture and construction. With these conditions in place, Marx and Engels argued that capitalism had already "accomplished wonders far surpassing Egyptian pyramids, Roman aqueducts and Gothic cathedrals," and would go on to create "more massive and more colossal productive forces than have all preceding generations together."⁷ But while the two men referenced the great architectural monuments of history, they showed little interest in the aesthetic of their own time.

Paris has long served as the European example of the urban transformation of capitalism, and Chicago was its American equivalent, a city that attracted not only businessmen but also huge numbers of tourists eager to witness the spectacle of industrialization.⁸ Early visitors were directed by guidebook authors to view the Union Stockyards on the southern edge of the city and the



2.2
In the heart of
the Great Union
Stockyards,
Chicago, USA,
c.1909



2.3
The Chicago
skyline with the "El"
visible in the left
foreground.
Kaufman, Weimer
and Fabry Co., Bird's
Eye View of
Chicago, 1912

forest of tall buildings lining La Salle, Dearborn, and State Streets in the center. Together these sights represented the most visible and awe-inspiring symbols of the astonishing productive forces that the new world order had brought into being. Built in 1865, the Stockyards were created by the consolidation of individual meatpacking companies, all for the sake of efficiency. With its gridded streets and alleys of pens, it was built on a square mile of drained marshland, a huge slaughterhouse and meatpacking factory designed to be serviced by railway cars. Similarly, the skyscrapers containing the businesses that organized the movement of goods around them were serviced by a sophisticated transportation infrastructure: a web of elevated streetcar lines that brought office workers and consumers in from the suburbs and home again, and a series of railway lines linking the city to the east.

Searching for an explanation for this unlikely vertical landscape rising from the horizontal plain on the shores of Lake Michigan, guidebook authors found one in the image of the mythical Phoenix. The forest of towers, they claimed, had risen from the ashes of the great fire of 1871. This fire burned for three days, destroying an area four miles long and more than half a mile wide, including most of the Loop but sparing the industries on the periphery of the city.⁹ In its wake, new city ordinances required all construction in the burnt over district to be fireproof, effectively restricting wooden residential dwellings to the periphery. But while these building regulations did help create a segregated commercial core, the fire did not produce the iconic tall buildings later celebrated in architectural history.¹⁰ Immediately after the disaster the city was repopulated with much the same kind of buildings that had existed before: four-, five- and six-storey masonry buildings, many designed in the fashionable Gothic Revival style. The post-fire generation of so-called "commercial Gothic" structures included several buildings by Peter B. Wight and his firm, Carter, Drake and Wight, including the Lenox Building (1872), and others by William Le Baron Jenney, such as the polychrome Portland Block (1872). Taller buildings incorporating new building technologies and with new aesthetic qualities did not appear until about a decade later.



2.4
Portland Block,
Chicago, IL, 1872.
William Le Baron
Jenney, architect.
Historic
Architecture and
Landscape Image
Collection, Ryerson
and Burnham
Archives, The Art
Institute of Chicago.
Digital File # 2261
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of Chicago

The first tall office buildings constructed in Chicago owed their appearance not to the *tabula rasa* produced by the fire, but to a rise in property prices that began to accelerate as the country emerged from the recession of 1873. The cycle of boom and bust that had driven Chicago's exponential growth since the 1830s was about to enter an epic but short-lived boom period. Beginning in the early 1880s, whole swathes of post-fire buildings were demolished and replaced with higher ones in an act of economic destruction and reconstruction that was almost equal in its force to the great fire. Burnham and Root's ten-storey Montauk Block, built in 1882 on Monroe Street between Dearborn and Clark, was an early example and is generally considered the first high-rise building in Chicago. At the same time that rising property prices encouraged building developers to think taller, the geography of capitalism was at work reorienting the center of the city away from the river and southward in search of cheaper land and access to newly built railway terminals.¹¹ La Salle Street was the first skyscraper corridor, prompted by the completion of W. W. Boyington's Chicago Board of Trade at La Salle and Jackson in 1885. Dearborn Street south of Jackson saw a boom in skyscraper

development around 1890, prompted by the construction of another Burnham and Root building, the Monadnock, in 1889.

These buildings were testament to the power of combined capital. While some early Chicago skyscrapers were commissioned by large companies, many were speculative ventures created not to house particular organizations but to make a profit via rental return. The limited liability corporation, a kind of joint stock company, was the mechanism that made this possible. As Robert Bruegmann has explained, "the use of corporate organization and the issuance of stocks and bonds made possible much larger capital pools than those available to any individual or private partnership."¹² These investments were considered safe because they were protected by limited liability law and individual investors were not personally responsible if the project failed.

The men who commissioned these buildings were less interested in artistic effect than they were in profit. Developers such as the Boston-based brothers Peter and Shepherd Brooks, who began investing in Chicago real estate in the 1860s, rarely visited the city and were absentee landlords.¹³ Regular clients of Burnham and Root, they commissioned the Monadnock, directing their architects through an agent and by correspondence. Wanting his buildings to be as plain as possible, Peter Brooks asked his architects to restrict themselves to "the effect of solidity and strength, or a design that will produce that effect, rather than ornament for a notable appearance."¹⁴

The form of the skyscraper was largely dictated by the profit motive. As Carol Willis has shown, architects were restricted not only by building regulations and by structural considerations but also by the charge to produce offices of standard dimensions, well supplied with daylight.¹⁵ These restrictions amounted to real estate formulae that varied little from building to building and Chicago architects were well acquainted with them. According to these formulae, the height of the skyscraper was not dictated by the limits of engineering but by economics. By 1889 the equation balancing rentable office space and the cost of construction dictated that sixteen stories was the most profitable, or "economic height," and this became the new norm. (Beyond this height, the additional requirements for foundations, elevators, and mechanical services meant a diminished return on the capital invested.)¹⁶ Most buildings of this height incorporated some metal framing, but this was not always the case. The 16-storey Monadnock, for example, had thick masonry load-bearing walls. This was an anomaly, however. As soon as they discovered the means by which to build a 16-storey office building out of masonry, Chicago architects rejected this solution. In 1893 the Brooks commissioned Holabird and Roche to design a southerly addition to the Monadnock, legally two new buildings called the Katahdin and Wachusett. The Katahdin, planned first, has skeleton framing inside and masonry exterior walls like the original. The Wachusett is entirely steel framed.

During the real estate boom of the 1880s, the desire to accrue high rents from speculative office buildings led to rapid and extreme changes to the building industry, most significantly the invention of a new system called the "Chicago construction." This system is often conflated with the skeleton frame,



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Monadnock
Building, Chicago,
IL, 1889-1891.
Burnham and Root,
north building
architects. Holabird
& Roche, south
building addition
[1893]. Historic
Architecture and
Landscape Image
Collection, Ryerson
and Burnham
Archives, The Art
Institute of Chicago.
Digital File # 60321
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of Chicago

but in fact it denoted a whole series of changes to the practice of construction, including the development of a new kind of foundation system, the use of mass-produced, prefabricated components including terracotta tile and plate glass, along with developments in fireproofing, plumbing, and elevator technologies.

The Chicago construction had several economic benefits: it allowed for taller buildings because the metal frame could carry a higher load than masonry, and it was much faster to erect. It also enabled thinner walls, creating more rentable area per floor. Cheaper than stone and lighter than brick, terracotta tile could be produced and fabricated relatively quickly. At the same time architects took advantage of new supplies of inexpensive plate glass from local manufacturers to design larger window openings at a time when electric light was not yet strong enough to service offices and stores. The result of this new



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Tacoma Building,
Chicago, IL,
1888-1889. Holabird
& Roche, architects,
J.W. Taylor,
photographer.
Historic
Architecture and
Landscape Image
Collection, Ryerson
and Burnham
Archives, The Art
Institute of Chicago.
Digital File # 2392
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of Chicago



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Reliance Building,
Chicago, IL,
1889–1895. D. H.
Burnham and Co.,
architects.

system was startling in its appearance. For example, Holabird & Roche's Tacoma building constructed on the corner of La Salle and Madison Streets in 1889, and D. H. Burnham and Co.'s Reliance Building on the corner of State and Washington Streets, completed in 1895, both presented a gently undulating terracotta tile and glass curtain wall to their two street facades, an effect so unexpected that they were highly criticized in the popular press.¹⁷

The advent of the Chicago construction not only produced a new aesthetic, it also initiated a remarkable and tumultuous reorganization of traditional building practices, including the work of contractors, architects, and building tradesmen. The Tacoma and the Reliance were both erected by the

George A. Fuller Company. Trained as an architect at the Massachusetts Institute of Technology, Fuller started his construction company in Chicago in 1882, just as the revolution in building practice was beginning. His firm was a new kind of contractor, a coordinator of all the aspects of building rather than a specialist in one particular trade, responsible for purchasing and assembling materials, hiring subcontractors, as well as financing building projects in some cases.¹⁸

The work of the architect was similarly reorganized, exemplified by the changes that took place in Daniel Burnham's office after the death of his partner John W. Root in 1891. Burnham rationalized his office, basing it on the corporate model of his big business clients. He created three separate departments, each with its own responsibility and controlled by one of his three partners: Ernest Graham, his long-time assistant, was the office manager; Edward Shankland, an engineer, was in charge of construction management; and Charles Atwood, the young architect responsible for the Reliance, was the designer.¹⁹ The name of the office changed from "Burnham and Root" to "D. H. Burnham and Company," and eventually included satellite offices working in a number of cities. This model set a precedent for a new kind of architectural office with national and even international commissions, one in which the work produced should be seen as the creation of the whole company and not that of one or two individuals.

As the organization of contracting companies and architecture offices changed, so did their relationships with the building trades.²⁰ The Chicago construction allowed the contractor and the architect to reposition themselves as managers of the building process, at the expense of the building tradesmen's traditional autonomy. As the production of building materials and the construction of buildings became industrialized, building workers saw the value of their labor reduced. Not only could machines replicate some of their tasks, they worked more quickly and for no pay. As old trades disappeared, new ones took their place. In the 1880s a distinct category of ironworkers appeared, men who worked solely on building construction, rather than bridges and railways, and they quickly came into conflict with masons and carpenters over matters of jurisdiction.²¹ As the tall steel towers rose above the city, they became highly contentious symbols of a new economic and industrial system.

By the late 1880s, the success of the skyscraper seemed assured in the popular imagination; its limits appeared almost infinite as science fiction writers and utopians confidently predicted future fifty- and one hundred-storey buildings made of steel and glass. But at the same time the new building type came under attack as the pace of industrial change created serious civil unrest. The combination of an unstable economy with periods of low wages and high unemployment, the mechanization of the building industry, and the threat of decline for the traditional building trades created a volatile situation, one in which labor unions became increasingly radical, and tall office buildings became highly visible targets.

From the time of its first appearance, the skyscraper was, in fact, the center of an architectural ideological battle. In art and architectural journals, critics from Europe and the east coast condemned Chicago and Chicago architecture as ugly and uncultured.²² Indeed, they barely recognized the tall office building

as architecture at all. Instead they saw it as a product of engineering and construction, built in the service of capital, and therefore not art. An 1892 article in the *English Builder* claimed, "The Chicago architect does not build high because he likes it, but because the problem presented to him forces him to do so."²³ In 1894 the French architect Jacques Hermant criticized the plain Monadnock as "no longer the work of an artist responding to particular needs with intelligence and drawing from them all of the possible consequences. It is the work of a laborer who, without the slightest study, superimposes fifteen strictly identical stories to make a block then stops when he finds the block high enough."²⁴ In this way the tallest and most imposing of Chicago's commercial buildings was dismissed as the work of a builder, not a designer.

At the same time that the skyscraper was being dismissed by foreign critics, local labor groups were picketing building sites in downtown Chicago, pointing to the new building type as evidence of capitalist greed and exploitation. Between 1883 and 1900, building disputes in Chicago grew exponentially as the process of building became industrialized and the economy continued to be extremely volatile. The strikes began in the spring and summer of 1883 when the powerful bricklayers union struck, demanding a fixed daily wage of \$4 and a ten-hour working day. Because the bricklayers were so indispensable to the building process, this strike was ultimately successful and it spurred others, including one by the carpenters' union in 1886. The success of these strikes also prompted further changes in the building industry. There is evidence, for example, that the success of the bricklayers' strike encouraged architects to utilize the Chicago construction more fully. As Henry Ericsson, a builder and early member of the bricklayers' union, later claimed, the use of the iron and steel frame "soon released building from dependence upon the prior erection of massive walls of brick and stone, and thus set in motion a revolution in the technology of modern building and altered fundamentally the brick and stone mason's relation to the building industry."²⁵

This transfer of power in the building industry had far-reaching consequences. Responding to the threat industrialization posed to traditional crafts, the labor movement became increasingly radicalized, aligning itself first with the national Eight Hour Movement, and then with radical groups such as the International Working People's Association (IWPA). Understanding the advantages of the popular press, the IWPA organized mass meetings and published their own broadsheets. The most radical members of the IWPA were recent German immigrants affiliated with revolutionary movements in Europe, such as August Spies, editor of the German-language labor newspaper *Arbeiter-Zeitung*. They also included some American-born members like Albert Parsons and his wife Lucy, editors of the English-language *Alarm*. Spies and Parsons were not factory workers but skilled tradesmen with some education: before turning to journalism, Spies was an upholsterer and Albert Parsons was a printer, while Lucy Parsons was a seamstress.²⁶ Just as Marx did, these revolutionaries believed in the power of the strike to incite revolution. Their alliance with unionized labor in the service of that goal became known as the "Chicago idea": the strike would be the first line

of attack on the capitalist system, leading ultimately to its destruction. Modeled on the Declaration of Independence, the IWPA's manifesto declared the group's dedication to the "destruction of the existing class rule, by all means i.e. the energetic, relentless, revolutionary and international action."²⁷

This destruction would begin with the skyscraper, the most obvious symbol of capitalistic speculation and private property ownership. Lucy Parsons utilized its image in her criticism of the city's treatment of the poor. Drawing a direct relationship between the tall office buildings in the Loop and the conditions of the destitute living in their shadows, she described these buildings as symbols of capital's oppression of the workers. In 1885, she wrote:

We build magnificent piles of architecture whose dizzy heights dazzle us, as we attempt to follow with our eye along the towering walls of solid brick, granite and iron, where tier after tier is broken only by wondrous panes of plate glass. And as we gradually bring the eye down story after story, until it reaches the ground, we discover within the very shadow of these magnificent abodes the homeless man, the homeless child, the young girl offering her virtue for a few paltry dollars to hire a little room way up in the garret of one of them . . . Yet it was their labor that erected these evidences of civilization.²⁸

Through the pages of the *Alarm*, the Parsons tried to co-opt the "mechanic," or skilled building worker, arguing that effort expended in building "jails, courthouses . . . law and insurance offices" was an ultimately useless form of production benefiting only property owners.²⁹ It also printed recipes for the manufacture of dynamite and encouraged its use in bombing banks and other public buildings.³⁰ With these publications, Chicago anarchists joined like-minded European groups in turning towards dynamite as a way to violently reject a state they saw as intolerable. This became known as "propaganda of the deed" and resulted in a large number of political attacks and assassinations in Europe and the United States between 1880 and the beginning of World War I.³¹

During this period, anarchist bomb threats were frequent and while they were more often rhetorical than real, in Chicago at least, the police and the military took them very seriously. In an 1884 report, Philip Sheridan, commanding general of the United States Army and leader of the Chicago militia, warned that anarchists could easily manufacture explosives, and that "mercantile houses" represented prime targets.³² This danger appeared to be realized in January 1885 when an anonymous messenger left what appeared to be a crude explosive device at the main office of Burnham and Root's recently completed Chicago, Burlington and Quincy Railway offices on the corner of Franklin and Adams Streets, one block from the Board of Trade on La Salle Street. The railway companies were the most powerful businesses in the city, and the choice of a railway company building was highly symbolic. Though anarchist leaders disowned the purported bomb—they accused local Pinkerton agents of planting it

in order to precipitate a showdown between the two sides; the package was thrown into the Chicago River before it could be examined—its existence was widely reported as evidence that the anarchists were about to abandon words for action.³³

The same ambiguity surrounds the Haymarket bombing which took place a year later, though in this case the consequences were much more severe.³⁴ On the evening of May 5, 1886, a relatively small group gathered to listen to speeches by Albert Parsons and other anarchist leaders at the Haymarket, a market square in a working-class area west of the Loop beyond the Chicago River. As the meeting began to disperse, an unknown assailant threw a bomb, killing several police officers and wounding others. The effects were immediate and catastrophic for the labor movement. The police rounded up and arrested hundreds of suspects. On June 5, 1886, 31 men were indicted for the crime and eventually eight were charged with conspiracy to commit murder. After a lengthy and highly publicized trial, four men, including Parsons and Spies, were hanged as accessories to murder. Though talk of social revolution was effectively put to an end by the Haymarket bombing, the events of that year—mass demonstrations by the working classes, violent strikes followed by a dynamite attack and effective martial law—solidified middle-class opinion that labor leaders, those responsible for strikes in the building trades as well as in other industries, were nothing but foreign fanatics intent on destroying the American way of life.

In their publications, Chicago architects joined ranks with the mainstream press in opposing the unions, seeing them as incubators for anarchist activity, organizations in which incompetent foreign agitators exploited honest and worthy “American” workers (as in the *Harper’s Weekly* cartoon, Figure 2.8). An August 1886 editorial published in the real estate journal, the *Building Budget*, argued that the profession of architecture and the system of anarchy were purely antithetical. The author had nothing but praise for the prosecution of the men indicted for inciting the Haymarket bombing:

Architecture and massive masonry are symbols of law and order, and the iconoclast longs to pull them down . . . When society becomes unsettled, and property is rendered insecure, men are not disposed to launch out in beautiful and substantial structures . . . The anarchist is the plain and practical foe of the architect and builder. Art, indeed, and anarchy cannot exist together. They are as antagonistic as light and darkness, cosmos and chaos, order and confusion.³⁵

In this turbulent environment, Chicago architects argued that, rather than the structurally fragile and temporary physical manifestation of an unstable financial system, the skyscraper was the natural product of the frontier landscape. Throughout the 1880s the *Inland Architect*, the professional journal of the Western Association of Architects, published editorials condemning strikes by the building trades unions and vilifying labor activists, side by side with articles justifying the

“Too Heavy A Load for the Trades-Unions. The Competent Workman Must Support the Incompetent,” *Harper’s Weekly*, March 17, 1883



TOO HEAVY A LOAD FOR THE TRADES-UNIONS. THE COMPETENT WORKMAN MUST SUPPORT THE INCOMPETENT.

skyscraper as the organic product of its environment, the result of a biological process in which European architectural forms evolved into a robust new American style. These articles were, in effect, an attempt to “naturalize” the forms assumed by capitalism.³⁶ The common practice of naming the skyscraper after a Native American tribe or mountain range (the Tacoma, Monadnock, Katahdin, and Wachusett to name but a few) is testament to building developers’ efforts to promote their constructions as native and organic objects. In their published writings, architects took on the same project, describing the skyscraper as the most progressive example of the evolution of architectural form.

In making their argument for the skyscraper’s naturalness, Chicago architects drew on the writing of the English art critic, John Ruskin. At the heart of Ruskin’s philosophy was an argument about the relationship between art and labor, and the veracity of this position was one of the few things that both architects and anarchists agreed upon: the great man was frequently quoted in both the *Inland Architect* and the *Alarm*. For Ruskin, the Gothic cathedral was an

authentic form of architecture because it represented a society in which the workman was given aesthetic freedom, and collaboration between all participants in the building process was the norm. He held up the collaborative efforts of medieval craftsmen in building the great cathedrals as an allegory of the participation of the working man in the governance of society.³⁷ Moreover, he believed that the Gothic style was a living mode of expression, changeable and adaptable to new contexts and uses, new places and peoples. Experiments in the commercial Gothic in the years after the 1871 fire by architects like Wight and Jenney reflected Ruskin's influence, both stylistically and intellectually.³⁸

The moral associations of the Gothic style were particularly important as Chicago grew into a powerful city. Even more so than New York, Chicago was considered the American Gotham, the capital of capitalism, a city dedicated entirely to making money, by fair means or otherwise. Given this reputation, the adaptation of the Gothic style for office buildings, housing, banks, financial exchanges, and insurance companies provided new and often financially precarious institutions with the moral authority previously held by sacred architecture. Implying intellectual and spiritual correctness, if not strict stylistic authenticity, the "commercial Gothic" ensured prestige for the architect and, with luck, high returns for his patron and longevity for the building itself.³⁹ Jenney's Portland Block, in particular, became a well-loved monument, one of the few of the post-fire buildings to survive longer than ten years.

Ironically, given Ruskin's celebration of the working man, the symbolism of the Gothic Revival style was also useful for architects in pitting themselves against building trades unions and anarchist groups. In architectural journals as well as in the popular press labor conflicts were cast in explicitly ethnic terms: business owners with roots in the American North East were represented as "native" Americans, and labor leaders, often recent immigrants from Germany and Eastern Europe, were represented as foreigners, ethnically "other." In the mythology of national identity, a new American race was evolving at the frontier: a strong, practical, and independent tribe that had descended over many centuries from roots in Northern Europe. More recent immigrants who had not undertaken that process were assumed to be racially inferior.⁴⁰ Borrowing liberally from Viollet-le-Duc, Jenney argued that the architectural style evolving in the American West was a reflection of its builders, the modern-day Aryans. The Aryans, he said, are "again migrating westward and spreading themselves over the United States from the Gulf of Mexico to Canada and the Pacific to produce a new center of civilization."⁴¹ For Chicago architects, the local adaptation of the Gothic was the solution to the intellectual struggle to find an indigenous style for the United States, one that had evolved, like the new American, from medieval Europe.

But despite the connection between the commercial Gothic and the supposed patrimony of building developers, it became increasingly difficult to reconcile this style with the Chicago construction. Initially, the Gothic cathedral, an historical precedent relying on buttresses rather than masonry walls for its primary structure, was the obvious reference point for steel-framed structures.

The New York critic Schuyler hinted at its adaptability to the new building method when he wrote, "We must own that the Chicago construction in its latest development, (*sic*) has not yet found its artistic expression; that no designer has yet learned to deal successfully with a structural change so radical that it has abolished the wall, which is the chief datum of every one of the historical styles of architecture, excepting only the developed Gothic."⁴² Burnham and Root, in particular, were praised for their free adaptation of the Gothic style in ever-higher steel-framed buildings, including the Woman's Temple and the Masonic Temple, both completed in 1892. However, the physical form and interior requirements of these large buildings, along with the practical conditions of their construction, soon made overt Gothic styling go out of favor. The skyscraper was a rationalized building type, designed by newly bureaucratic architecture practices and erected by newly bureaucratic contracting companies using newly industrialized construction processes. In 1889 the Kansas City-based architect Henry Van Brunt rejected the Gothic as a model for the Chicago construction. "Such a problem does not call for the same sort of architectural inspirations as the building of a vaulted cathedral in the Middle Ages," he wrote. "The one required a century of deliberate and patient toil to complete it; the other must be finished, equipped, and occupied in a year of strenuous and carefully ordered labor."⁴³

Influenced by the writing of Viollet-le-Duc, Chicago architects increasingly made a distinction between Gothicism as a style with recognizable external form (as in the Venetian Gothic), and Gothicism as a philosophy based on the principle of "constructive" expression in which materials were used "truthfully"; that is, their structural capability was made visible. The fact that the new structural system was an industrial one and its use transferred power out of the hands of traditional building craftsmen and into the hands of architects was viewed as a positive development. Viollet-le-Duc provided the last word on this. Significantly, he did not object to cast-iron, as Ruskin did, but saw in it the potential for a new modern style based on Gothic principles. Chicago architects soon adopted Viollet-le-Duc's rationalist understanding of structure and materials and in the process the Gothic Revival was transformed from a morally correct style into a rational constructive principle, a transformation that enabled local architects to unleash the Gothic from its anti-modern associations and to embrace industrialization.

Louis Sullivan is the architect most celebrated for his ability to adapt the naturalism of the Gothic style to new functions and new materials, but when viewed in the context of the labor conflicts dividing his city (conflicts in which he was professionally involved on a daily basis), his work can be seen as an attempt to create a new aesthetic that expressed the triumph of business and technology over the forces that threatened to destabilize the city.⁴⁴ While his version of the Gothic was true to the characteristics of its materials (iron, terracotta tile, and plate glass), its structure (an internal steel skeleton), and to its method of production (semi-industrialized processes), the all-important Ruskinian ideals of handicraft and collaborative effort had been replaced by an architect-driven, aestheticized representation of rationalized modern building processes. In 1896,

Sullivan famously claimed the skyscraper as a monument to American democracy,⁴⁵ and for him, the ideal American was not the building trades worker but a member of the managerial class.

Echoing this idea, Frank Lloyd Wright in 1901 argued that the stonemason's chisel was the tool of the slave. Only by embracing industrialized building methods could Americans free themselves and begin a new tradition. "The machine does not write the doom of liberty," he claimed, "but is waiting at man's hand as a peerless tool, for him to use to put foundations beneath a genuine democracy."⁴⁶ The transfer of the Ruskinian ideal of the medieval mason to the architect versed in the Chicago construction, from pre-industrial to industrial culture, was complete. For the architects of the first Chicago school, the curtain wall facade was an advertisement for an optimistic view of the future of American society under capitalism.

* * *

As we know, the appropriation of the skyscraper for anti-capitalist purposes occurred not in the United States, but in the drawings and rhetoric of the European avant-garde, where Expressionist, Constructivist, and Functionalist architects experimented with versions of the glass-clad, steel-framed tower in the service of socialism.⁴⁷ In the United States, the brutal aftermath of the Haymarket bombing put an end to this particular revolutionary moment in the nation's history. While labor unions still struck, it was in service of better pay and conditions, and not an attempt to overturn the social system. At the turn of the twentieth century the biggest threat to the skyscraper was not the anarchist's bomb but the wrecking ball as the country entered a steep depression in 1893. Faced with an oversupply of office space, the tall office building was no longer a sound business investment, and many early skyscrapers were demolished to make way for shorter and more profitable buildings. Inspired by the World's Columbian Exposition held in Chicago in the same year, Burnham began a second career as an urban planner in which he imagined the future of global capitalism in terms of horizontal rather than vertical expansion. The era of the skyscraper seemed to be over. But of course this was not the case: this particular form of accumulated capital merely lay in abeyance until the next boom period during the 1920s.

The dialectical nature of history is the organizing theme of Marx's analysis of capitalism, but he could not predict the ultimate challenge to capitalism's global expansion presented by our limited natural resources nor the complex organizational, urban, and architectural forms in the twentieth century. His writing ultimately is best seen as an argument about the interconnectedness of the technical and social revolutions of the nineteenth century. In these terms, the Chicago of the 1880s and early 1890s presents a vivid illustration of his understanding of the workings of capitalism. Rereading the history of the first Chicago school through his lens of labor and class is useful in reminding us that the monolithic form of the skyscraper arose, paradoxically, out of conditions of

transience, uncertainty, and conflict; that the technological revolution of the Chicago construction was inextricably tied to intense economic and social upheaval. One of the most visible manifestations of the massive and colossal productive forces created by capitalism, the skyscraper participated in a continuous dialectic of dismantlement and reconstruction, and this perpetual re-invention applied just as much to its cultural signification as it did to its material form.

Notes

- 1 The history of the term "Chicago school of architecture" is discussed in: H. Allen Brooks, "Chicago School: Metamorphosis of a Term," *Journal of the Society of Architectural Historians* (May 1966): 115–118; Robert Bruegmann, "The Marquette Building and the Myth of the Chicago School," *Thresholds* 5, 6 (Fall 1991): 7–18, reprinted as "The Myth of the Chicago School," in *Chicago Architecture: Histories, Revisions, Alternatives*, ed. Charles Waldheim and Katerina Ruedi Ray (Chicago: University of Chicago Press, 2005), 15–29; and Daniel Bluestone, "Preservation and Renewal in Post-World War II Chicago," *Journal of Architectural Education* 47, 4 (May 1994): 210–223.
- 2 Sigfried Giedion, *Space, Time and Architecture: The Growth of a New Tradition* (Cambridge: Harvard University Press, 1941), 304.
- 3 As the first architectural historians to apply a Marxist lens to the discipline, Manfredo Tafuri and his students were especially interested in the early American skyscraper, understanding it as an instrument of ideology in the terms set out by philosopher Louis Althusser. See Giorgio Ciucci, Francesco Dal Co, Mario Manieri-Elia, and Manfredo Tafuri, *The American City: From the Civil War to the New Deal*, trans. Barbara Luigia La Penta (Cambridge: MIT Press, 1979). See also Andrew Leach, *Manfredo Tafuri: Choosing History* (Ghent: A&S/books, 2007), 34–43. More recently, Carol Willis has examined the early American skyscrapers in New York and Chicago in terms of their relationship to economic development and real estate practices in *Form Follows Finance, Skyscrapers and Skylines in New York and Chicago* (New York: Princeton Architectural Press, 1995).
- 4 Karl Marx and Friedrich Engels, *The Communist Manifesto* (1848; London: Penguin Books, 1967), 83.
- 5 A. J. P. Taylor, introduction to *The Communist Manifesto*, 18–19.
- 6 William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York: W.W. Norton and Co., 1991). On the origins of the city, see also Harold M. Mayer and Richard C. Wade, *Chicago: Growth of a Metropolis* (Chicago: University of Chicago Press, 1969), 10–18; John Reys, "Urban Planning on the Great Lakes Frontier," in *Town Planning in Frontier America* (Princeton: Princeton University Press, 1969), 344–381; Janet L. Abu-Lughod, *New York, Chicago, Los Angeles: America's Global Cities* (Minneapolis: University of Minnesota Press, 1999), 33–34, 48–54.
- 7 Marx, *Communist Manifesto*, 85.
- 8 David Harvey discusses the transformation of Paris in these terms in *Paris, Capital of Modernity* (London: Routledge, 2003).
- 9 Mayer and Wade, *Chicago: Growth of a Metropolis*, 106–122.

- 10 Karen Sawislak has described the post-fire building regulations that hastened the physical segregation of Chicago into downtown business district and outlying suburbs in *Smoldering City: Chicagoans and the Great Fire, 1871–74* (Chicago: University of Chicago Press, 1995).
- 11 Homer Hoyt, *One Hundred Years of Land Values in Chicago* (Chicago: University of Chicago Press, 1933).
- 12 Robert Brueggemann discusses the role of this new financial entity in developing skyscrapers in *Holabird & Roche/Holabird & Root: An Illustrated Catalogue of Works, 1880–1940* (New York: Garland, 1991), 1:71.
- 13 In 1859 the New York-based magazine of arts and architecture, *The Crayon*, claimed that half of Chicago's buildings were owned by New Yorkers. "Notes on the West," *Crayon* 6 (1859): 223. On the Brooks and other patrons of Chicago real estate, see Miles L. Berger, *They Built Chicago: Entrepreneurs Who Shaped a Great City's Architecture* (Chicago: Bonus Books, 1992), 29–48.
- 14 Donald Hoffman, *The Architecture of John Wellborn Root* (Chicago: University of Chicago Press, 1973), 156.
- 15 Willis, *Form Follows Finance*, 19–34, 49–77.
- 16 *Ibid.*, 46.
- 17 On the Tacoma, see Brueggemann, *Holabird and Roche*, 1:11–21. On the Reliance, see Joanna Merwood, "The Mechanization of Cladding: The Reliance Building and Narratives of Modern Architecture," *Grey Room* 4 (Summer 2001): 52–69.
- 18 The George A. Fuller Company built the majority of tall office buildings erected in Chicago in the 1880s and 1890s before expanding to New York in the early twentieth century. See *Fireproof Building Construction. Prominent Buildings Erected by the George A. Fuller Company* (New York: T. D. Rich and G.A. Fuller, 1904); Raymond C. Daly, *75 Years of Construction Pioneering: George A. Fuller Company, 1882–1957* (New York: Newcomen Society in North America, 1957); David Van Zanten, "The Nineteenth Century: The Projecting of Chicago as a Commercial City and the Rationalization of Design and Construction" in *Chicago and New York: Architectural Interactions* (Chicago: Art Institute of Chicago, 1984), 42–45.
- 19 On the reorganization of Burnham's firm after Root's death, see Peter B. Wight, "Daniel Hudson Burnham and His Associates," *Architectural Record* 38, 1 (July 1915): 3–7; Charles Moore, *Daniel Hudson Burnham: Architect and Planner of Cities* (1992; repr., New York: Da Capo Press, 1968), 82–86; and Thomas Hines, *Burnham of Chicago: Architect and Planner* (Chicago: University of Chicago Press, 1974), 268–269.
- 20 Richard Schneirov provides a detailed history of the changes to labor practice in late nineteenth-century Chicago in *Labor and Urban Politics: Class Conflict and the Origins of Modern Liberalism in Chicago, 1864–97* (Urbana: University of Illinois Press, 1998).
- 21 Earl McMahon, *The Chicago Building Trades Council: Yesterday and Today* (Chicago: Chicago Building Trades Council, 1947).
- 22 Arnold Lewis describes European critical reaction to Chicago architecture in *An Early Encounter With Tomorrow: Europeans. Chicago's Loop, and the World's Columbian Exposition* (Urbana: University of Illinois Press, 1997).
- 23 "New Business Buildings of Chicago," *The Builder* (Great Britain) 63 (July 9, 1892): 23–25.
- 24 Jacques Hermant, "L'architecture aux Etats-Unis et à l'exposition universelle de Chicago," *L'Architecture* 7 (October 20, 1894): 341–346.
- 25 Henry Ericsson, *Sixty Years A Builder: The Autobiography of Henry Ericsson* (Chicago: A. Kroch and Sons, 1942), 71.
- 26 On the lives of Lucy and Albert Parsons, see Lucy Parsons ed., *The Life of Albert R. Parsons* (Chicago: L.E. Parsons, 1889); Albert R. Parsons, "Autobiography of Albert Parsons," in *The Autobiographies of the Haymarket Martyrs*, ed. Philip S. Foner (New York: Humanities Press, 1969); Carolyn Ashbaugh, *Lucy Parsons: American Revolutionary* (Chicago: Charles H. Kerr, 1976).
- 27 "International Workingmen's Proclamation," *Alarm*, July 23, 1886. On the principles of the IWPA, see Schneirov, *Labor and Urban Politics*, 173.
- 28 Lucy Parsons, "Our Civilization. Is it Worth Saving?" *Alarm*, August 8, 1885.
- 29 *Alarm*, November 1, 1884.
- 30 "Dynamite: The Protection of the Poor Against the Armies of the Rich," *Alarm*, December 6, 1884; "Dynamite," *Alarm*, February 21, 1885; "How to Make Dynamite," *Alarm*, March 21, 1885; "Explosives: A Practical Lesson in Popular Chemistry. The Manufacture of Dynamite Made Easy," *Alarm*, April 4, 1885; "Dynamite: Instructions Regarding its Use and Operations," *Alarm*, June 27, 1885; "Voice from the People: Nitro-glycerine," *Arbeiter-Zeitung*, January 4, 1885.
- 31 See Andrew R. Carlson, *Anarchism in Germany*, 2 vols (Metuchen, NY: Scarecrow Press, 1972); Jean Maitron, *Le mouvement anarchiste en France*, 2 vols (Paris: François Maspero, 1972–1975); Hermia Oliver, *The International Anarchist Movement in Late Victorian London* (London: Croome Helm, 1983); Richard B. Jensen, "Daggers, Rifles and Dynamite: Anarchist Terrorism in Nineteenth Century Europe," *Terrorism and Political Violence* 16, 1 (2004): 116–153; and John Merriman, *The Dynamite Club: How a Bombing in Fin-de-Siècle Paris Ignited the Age of Modern Terror* (New York: Houghton Mifflin, 2009).
- 32 The *Alarm* quoted from Sheridan's report of November 10, 1884 in which he warned of the dangers of dynamite. *Alarm*, December 6, 1884.
- 33 "Another Infernal Machine. A Curious Package Which Frightened Several Chicago People," *New York Times*, January 2, 1886; "The Chicago Socialists. How They Have Prepared for a Threatened 'Revolution.' Bombs and Infernal Machines for Future Use—Plans for Fighting in the Streets and from the Housetops," *New York Times*, January 15, 1886.
- 34 On the Haymarket bombing, see Henry David, *The History of the Haymarket Affair: A Study in American Social-Revolutionary and Labor Movements* (New York: Russell and Russell, 1936); Paul Avrich, *The Haymarket Tragedy* (Princeton: Princeton University Press, 1984); Carl Smith, *Urban Disorder and the Shape of Belief* (Chicago: University of Chicago Press, 1995), 101–146; and James Green, *Death in the Haymarket: A Story of Chicago, the First Labor Movement, and the Bombing that Divided America* (New York: Pantheon, 2006).
- 35 *Building Budget* 2, 8 (August 1886): 90.
- 36 Marx, as we know, derided attempts to "transform into eternal laws of nature and of reason, the social forms springing from your present mode of production and from property." Marx and Engels, *The Communist Manifesto*, 100.
- 37 On the influence of Ruskin's writing in the United States, see Michael W. Brooks, "Ruskin's Influence in America," in *John Ruskin and Victorian Architecture* (New

- Brunswick: Rutgers University Press, 1987), 277–297; and Lauren Weingarden, “Gothic Naturalism and the Ruskinian Critical Tradition in America,” in Louis H. Sullivan and a Nineteenth-Century Poetics of Naturalized Architecture (London: Ashgate Press, 2009), 71–96.
- 38 Wight’s long-standing advocacy of the Gothic as the most appropriate way of building began with his early career in New York City, and his connections to the art journals the *New Path* and the *Crayon* in the 1860s. Peter B. Wight, “The Development of New Phases of the Fine Arts in America,” *Inland Architect* 4, 4 (November 1884): 51–53; *Inland Architect* 4, 5 (December 1884): 63–65. On Wight’s career and intellectual influences see Sarah Bradford Landau, *P. B. Wight: Architect, Contractor, and Critic, 1838–1925* (Chicago: Art Institute of Chicago, 1981).
- 39 Though this was the goal, not all critics were convinced as to the beauty or authenticity of the Chicago version of the neo-Gothic. The New York critic Montgomery Schuyler derided local attempts at what he called the “American eclectic Gothic.” Montgomery Schuyler, “Glimpses of Western Architecture: Chicago” (1891), in *American Architecture and Other Writings*, ed. William Jordy and Ralph Coe (Cambridge: Harvard University Press and the Belknap Press, 1961), 2:253. Upon visiting the city in 1882 Oscar Wilde famously described the Water Tower as “a castellated monstrosity with pepperboxes stuck all over it.” Arthur Seigel, *Chicago’s Famous Buildings* (Chicago: University of Chicago Press, 1965), 48.
- 40 On the popularity of the Aryan myth in nineteenth-century America, see Reginald Horsman, *Race and Manifest Destiny: The Origins of American Racial Anglo-Saxonism* (Cambridge: Harvard University Press, 1981), and Richard Slotkin, *The Fatal Environment: The Myth of the Frontier in the Age of Industrialization 1800–1890* (New York: Atheneum, 1985).
- 41 William Le Baron Jenney, “Architecture. Lectures Delivered at the University of Chicago,” pt. 2, *Inland Architect* 1, 3 (April 1883): 33–34.
- 42 Montgomery Schuyler, “Architecture in Chicago: Adler and Sullivan” (1896), in *American Architecture and Other Writings*, 2:387; emphasis added.
- 43 Henry Van Brunt, “Architecture in the West” (1889), in *Architecture and Society. Selected Essays of Henry Van Brunt* (Cambridge: Belknap Press, 1969), 187.
- 44 David Van Zanten and Lauren Weingarden have explored the ways in which Louis Sullivan carried on the Gothic tradition in his ornament. David Van Zanten, *Sullivan’s City: The Meaning of Ornament for Louis Sullivan* (New York: W. W. Norton, 2000); Lauren Weingarden, “Ruskin’s Reception in the Chicago School,” in *Louis H. Sullivan and a Nineteenth-Century Poetics of Naturalized Architecture*, 183–212. Robert Twombly and Joseph Siry have discussed the effects of strikes on the construction of the Auditorium Building and on Chicago in general. Robert Twombly, “Cuds and Snipes: Labor at Chicago’s Auditorium Building, 1887–89,” *Journal of American Studies* 31 (1997); Joseph Siry, *The Chicago Auditorium: Adler and Sullivan’s Architecture and the City* (Chicago: University of Chicago Press, 2002).
- 45 Louis Sullivan, “The Tall Office Building Artistically Considered,” *Inland Architect* 27 (February 1896): 32.
- 46 Frank Lloyd Wright, “The Art and Craft of the Machine” (1901), in *America Builds: Source Documents in American Architecture and Planning*, ed. Leland M. Roth (New York: Harper and Row, 1983), 376.
- 47 Jean-Louis Cohen explores the fascination that American industrial architecture held for the architects of the European avant-garde in *Scenes of the World to Come: European Architecture and the American Challenge 1893–1960* (Paris and Montreal: Flammarion and Canadian Center for Architecture, 1995).