stone. As a painter, Rubens had a profound knowledge of perspective, optics, and lighting, which proved to be an excellent quality for a designer of architecture. This highly interesting visual analysis deserves more study, as it could be the starting point for a better understanding of the nature of the relationship between the two arts.

Contributor Werner Oechslin seeks a more theoretical explanation for why painters became architects by looking for a principle common to both media. The Roman Accademia di San Luca united painters, sculptors, and architects, who agreed on the equality of all arts by stating that disegno (the visualization of an idea, or inventio) is the father of all of them. Despite this common ground, discussions continued between painters who believed that painting is the mother of arts and architects who believed that the use of mathematics and perspective in architectural drawings puts architecture on the level of the liberal arts. Edward H. Wouk uses a similar theoretical approach in his essay on the painted façade of Frans Floris’s house. Christopher P. Heuer compares travel sketches to the Wunderschaft and education of artists.

Despite the merits of the above-described contributions, only two essays in the volume actually address the notion of the painter-architect, and both do so from a historical point of view. In his unannotated essay, Howard Burns discusses painter-architects in Italy, and while analyzing the lives of painters like Bramante, Raphael, and Peruzzi, he draws the conclusion that most painters who designed buildings were, in fact, architects by opportunity. As court artists they fulfilled the tasks of artistic directors, being responsible for all sorts of design needed at court, including architecture. On the other hand, Burns acknowledges that they were not necessarily better architects than others who were trained as sculptors (Brunelleschi) or who came from intellectual backgrounds (Alberti). The other essay elaborating on the notion of the painter-architect is contributed by Oliver Kik, who analyzes how architectural knowledge was transmitted in the Low Countries in the period 1480–1530. According to Kik, architectural design cannot be clearly isolated to one professional group. Rather, it was a shared skill of many artists involved in design in general. Interestingly, Kik reverses the whole idea of architecture being made by painters by asserting that most painters from the sixteenth century were, in fact, sons of architectural designers and goldsmiths (e.g., Albrecht Durer). He proposes to use the more general term designer instead of painter-architect, since categorizing particular artists as painters or architects does not do justice to the design skills they exercised in the various arts. As Kik puts it, “The professional identity of the architect during the fifteenth and sixteenth century is at least to be described as fluid and transversal” (87).

The book’s central question of the relationship between painting and architecture is compelling, but a clear view of the nature of this relationship requires further research. Many contributions are interesting in themselves, but it is not always clear how they relate to one another and the volume as a whole. Only Burns, Oechslin, and Adorni elaborate on the theme of the painter-architect, and Kik is the only contributor who interrogates the usefulness of the categorization for architectural history. Kik explicitly refutes the argument that the Renaissance was the reason that painters started to design architecture, as most of these painter-architects came from families of goldsmiths and masons. One could say that before we can study the notion of the painter-architect, we need to study the notion of the architect.

Kik’s essay is the most intriguing among the contributions in that his analysis challenges the notion of the painter-architect as reflected in Lombaerde’s definition. Perhaps it would have been helpful had Lombaerde taken the example of Baudouin’s earlier essay and really focused on painters active within the field of architecture. Italy and the Southern Low Countries provide enough names of such painters to fill a book on this subject that would promote the study of their mutual influences. This approach might have resulted in a clearer image of the relationships among painting, architecture, and related arts in the early modern period.

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Note

Paul Dobraszczyk
Iron, Ornament and Architecture in Victorian Britain: Myth and Modernity, Excess and Enchantment

Until recently critical discussions of architectural ornament were generally to be found in writings about nineteenth-century and/or Islamic architecture. Still riding the contemporary wave of interest in ornament and its relationship to architectural form, Paul Dobraszczyk’s Iron, Ornament and Architecture in Victorian Britain offers the reader new perspectives on a historical moment of the nineteenth century that is curiously apposite to architects and theorists today. One aspect of the resurgence of this interest is carefully detailed and chronicled in Dobraszczyk’s comprehensive study of Victorian Britain’s experience with iron as the first truly modern building material. Dobraszczyk articulates a technological experience for Victorian architects that is analogous to the one that Antoine Picon and others have theorized regarding the reappearance of ornament in contemporary architectural culture, which they see as strongly influenced by the new wide-ranging opportunities made possible by advances in digital culture. In similar fashion, advances in iron production methods and technologies in the second half of the nineteenth century led to revolutionary ways of understanding and producing architecture.

Through an exploration of various “ironworlds” in Victorian Britain, Dobraszczyk claims to seek out how a “fusion of iron and ornament” sought to reconcile art and technology by creating “a new, modern architectural language that drew on both history and modernity” (3). Striving also to challenge assumptions about the “perceived ideological split between Victorian architecture and engineering” (5) as well as more enduring and complex relationships, such as perceptions of architectural form and material as they relate to history, Dobraszczyk concerns himself in detail with what he refers to as iron’s “unboundedness” (9).
This “unboundedness” of iron, according to Dobraszczyk, has a number of implications, but the perception of iron as unbounded can be attributed to two main factors. The first was the large amount of the material that quickly became commercially available, especially in the second half of the nineteenth century. The second was the fact that iron had no “natural” form or particular material definition, since it was fashioned initially through a smelting process. Indeed, it was this latter quality of iron that no doubt caused so much debate in a century when the traditions of the old regime were continually being met with new industrial means and methods. During this crucial moment of Britain’s industrialization, the question of ornament in the decorative arts and architecture arose as a pressing issue particularly because iron founders could produce nearly any form requested by architects and engineers. Thus, one of the key ideas throughout the text is the tension between the “decorative” and “structural” nature of the ornamental in what quickly became one of the most ubiquitous construction materials in Britain at the time. In pursuing this idea, the book overturns any assumption the reader might have about the ease with which the building industry accepted and utilized the new and suddenly ubiquitous cast-iron material.

Over the course of five chapters Dobraszczyk deals with the remarkably varied ways in which iron was conceptualized and employed in public buildings throughout Britain during the Victorian period. In his introduction he lays out the interwoven complexities in narrating such a history of iron ornament through an analysis of the famous Scottish foundries of Walter Macfarlane & Company and the Carron Company. Through a discussion of the evolution and importance of the catalogue, the showroom, and the exhibition stand, as well as the buildings these foundries produced for export, the author compellingly outlines the array of astonishing possibilities iron ornament had in the years following the Great Exhibition of 1851. The first chapter addresses the crucial role marketing played in the proliferation of iron ornament through an analysis of the emergence of the railway station as a connected sites for the articulation of ideas about its entire development of modernism.

The introduction sets up the book with the various motives behind the thorough condemnation of Victorian ornamental ironwork within architectural historiography through the years. Dobraszczyk acknowledges this difficult history by reciting a litany of pejorative descriptors used to characterize such ironwork, from “deceptive,” “vulgar,” and “a sham” to nothing but “decorative sludge.” He makes the case that because of the sweeping modernist condemnation of ornament from the 1920s to the 1950s, critical theoretical questions and issues raised by the proliferation of ornamental ironwork throughout the Victorian period have been overlooked in favor of iron’s structural story, particularly in terms of its relationship to steel, so central to the modernist narrative. Furthermore, he argues that due to this relentless “prejudice” against ornamental ironwork within the modernist canon, greater questions about the integral relationship between structure and ornament, including the very nature of ornament in terms of its material and structural roles, had little chance to be explored, much less learned from. Dobraszczyk then proposes to take the reader through these assorted “ironworlds” of Victorian Britain in order to demonstrate the ubiquity of productive examples that will surely cast new light on the early development of modernism.

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Chapter 2 delves into the social implications of iron and reveals a variety of complex reactions to the new material as it spread throughout the urban landscape of Britain’s cities. Through specific examples such as the controversies that arose from the ruthless reproducibility of cast-iron streetlamps and other “street furniture” (75) and the emergence of “obscene” cast-iron urinals in public, as well as the abundance of new memorials that were springing up, Dobraszczyk introduces the reader to the significant impact iron had on public space. Chapters 3 and 4 shift to larger-scale analysis, focusing, respectively, on the emergence of often elaborate “seaside ironworks” (131) and on iron’s role in the civic realm through the highlighted building types of arcades and market halls.

Chapter 5 is dedicated to iron’s critical and reciprocal role in the development and growth of the railways in Victorian Britain. Although the topic of the railways and the corresponding emergence of the railway station has been quite popular in the past, most notably with writers such as Carroll Meeks and Wolfgang Schivelbusch, Dobraszczyk refreshes the discussion with new questions and new perspectives on old buildings. This is the last chapter of the book and an effective conclusion to Dobraszczyk’s argument that an analysis of iron ornamental structures can yield new perspectives on modernism. Indeed, through a critical examination of train stations, in particular Matthew Digby Wyatt’s designs for Paddington Station, the author reveals not only the sophisticated level of interdependence that ornament and structure achieved at this time but also how this case went on to generate “a new range of new ornamental possibilities for the material that tended more towards a totalising aesthetic than isolated decorative embellishments of structure” and how this design can be seen as “a fusion of function and decoration into an ornamental whole” (237–38). The chapter closes with what reads almost like an introduction to another book, since there is a shift in the discussion from train sheds and platform canopies to the actual railway tracks they cover and the vast network of which they are a part. Invoking a variety of authors, Dobraszczyk conceptualizes the representation of this network of iron rails and their respective stations as a connected system of parts (sheds, platforms, and tracks) that “constituted sites for the articulation of ideas about its entire meaning, and hence as loci of the ornamental” (268).

Dobraszczyk’s text will certainly attract a wide variety of readers. On the one hand,
the book is a contribution to the contemporary debate on ornament and its historical origins. Those studying this issue will benefit from its comprehensive examples and insight. Practitioners who deal with issues of material, structure, and representation, particularly those in preservation, also may find the book relevant to their work. On the other hand, the book is a thorough and well-researched study of the development of cast and wrought iron that brings together a rich array of examples from across Victorian Britain. Because it is a history of the proliferation of iron architecture throughout the United Kingdom in the nineteenth century as well as an exploration of iron’s social role and meaning within British society, in addition to those interested in Victorian history and culture, this book is well suited for historians of nineteenth-century architecture, modernism, historic preservation, and conservation.

One weakness of the book is that it does not relate enough to some of the more recent discussions on ornament that have been circulating for the past couple of years. It is clear in the introduction that Dobraszczyk is aware of this scholarship, and he goes as far as to say that he will contribute to the contemporary discourse, but in what way specifically is not obvious. A more thorough engagement with that discussion may have attracted even more readers. Despite this minor issue, *Iron, Ornament and Architecture in Victorian Britain* offers a refreshing and critical perspective on what, until recently, some have considered an outdated topic. Indeed, as the narrative of modernism continues to be reexamined and rewritten, the extraordinary role of Victorian ironwork within that history will be convincingly acknowledged because of this book.

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Notes


Thomas Leslie

**Chicago Skyscrapers, 1871–1934**


Thomas Leslie’s sophisticated analysis of Chicago’s leading role in the genesis of the skyscraper revisits the early phases of the skyscraper’s development, corrects assumptions about Chicago’s role, and links ostensibly minor or unrelated issues to form a fresh view of the topic. *Chicago Skyscrapers, 1871–1934* breaks new ground by expanding into the post-1900 development of this building form and ends before German refugee architects arrived to begin a new thrust and historians predicated the idea of a “Chicago school.” Unlike earlier historians who drew deceptive clarity from simplification and myth, Leslie expresses the intertwined realities that designers and builders experience as they strive to solve the technical and formal problems presented by a novel building type. Combining numerous elements—architectural and construction history; cultural, technological, and social history; political, planning, and economic history—Leslie presents a story that rings true as a portrait of professional life in the building world in all its ambition and ambiguity. The book concludes with a critical evaluation of the iconic monographs and a chronology of the buildings.

Leslie ponders how the skyscraper has been defined, misunderstood, and redefined from many standpoints, and he addresses the conceptual messiness of overlapping technological phases and the back-and-forth of avant-garde daring and fiscal conservatism. He reviews and evaluates the development from monolithic to frame construction, the evolution of codes, and innovations in materials (terrazzo, plate glass) and services (electricity and vertical transportation) and explains their mutual influence, taking care not to neglect the uncertainties and retarding influences of new technologies’ teething troubles. The result is a comprehensive view of the basis for the designers’ decision-making processes.

In the struggle to provide stable foundations in Chicago’s poor subsoil, Leslie sees one component of a possible answer to the perennial question of why the skyscraper’s early development was concentrated in Chicago and not in an East Coast center such as New York, Boston, or Philadelphia. Another component was the hothouse environment created when an internationally educated group of professionals werequested in a provincial city with plenty of work for all. As John Root and Dankmar Adler expressed in their writings, local architects discussed and pooled their thoughts and influenced one another. A third component was the organization of deep lots with extensive street frontage, in contrast to the narrow frontage in East Coast cities, and a fourth was the labor disputes that initiated the shift from masonry to iron and forced builders to innovate. All of this was supported by investors’ pursuit of financial gains and the eagerness of insurance companies to invest in reconstruction and prove their liquidity after the many fires that took place in Chicago from 1871 on.

This complexity highlights hitherto unrecognized buildings such as Adler’s Central Music Hall (1879), with its innovative spatial program. Traditional exterior load-bearing walls and internal iron structure in hybrid forms took novel functional requirements into consideration, and this, combined with terracotta fireproofing, led to Burnham & Root’s Grannis Building in 1881. When that burned a year after opening, the next level already stood in the firm’s 1882 Montauk Building, which boasted incombustible floors as well. Foundation and terracotta specialist Peter Wight and the clients of both buildings, two Bostonian brothers named Brooks, proved crucial to this development. As Leslie relates, they were willing to be aggressively adventurous with their capital, and they funded several technically successful blocks. Because the Montauk had subsided during construction, Root—possibly advised by Wight, who apparently had conceived the idea in 1873—inserted railroad rails under