

shows that Germany's transition from harvesting wood to mining coal and then to smelting iron was closely tied to the nation's perception of forests as emblematic of its cultural and racial superiority.

Beyond national borders, metal was significant for imperial expansion. Most notably, iron facilitated the construction of railroads, thus increasing access to other natural resources—a history Christensen explores in his first book on German-engineered infrastructure in the Ottoman Empire.¹ But in the context of architecture, steel allowed imperial powers to advance on foreign territories and occupy them more quickly and efficiently. Christensen highlights how the British expanded their colonial reach by developing portable steel cottages that employed metal panels to expedite assembly.

In the context of the Ottoman Empire, steel provided an opportunity to both experiment with and, in some cases, resist Western design influences. Christensen draws attention to Constantin P. Pappa's Arif Paşa Apartments (1902) in Istanbul as a notable example. The project incorporated the I beam, a hallmark of German and American engineering, while also integrating traditional Ottoman architectural elements, such as the wood-clad bay window. Furthermore, the central government supported architects' adoption of steel because of its potential to address long-standing urban challenges, including issues related to overcrowding and the threat of fires, especially those resulting from arson. However, Christensen emphasizes that iron's most significant contribution in this context was symbolic in nature. It allowed the Ottoman Empire to present itself as strong, scalable, and durable.

One of the most innovative aspects of the book is Christensen's engagement with ecological thought and history. By prompting architectural historians to contemplate humankind's relationship with the land and the labor required to transform natural resources into construction materials, Christensen broadens the scope of what is considered architecture and who participates in its production. Drawing from Marxist critiques of capitalism's exploitation of land and people, the author situates architecture within a broader political ecology. He argues compellingly that both climate change and colonialism are characterized by acts of dispossession: climate change

involves the dispossession of territory, while colonialism entails the dispossession of sovereignty.

Also notable is Christensen's attentiveness to the social and environmental consequences of mining. He sees the underground mine, for example, as an architectural space in its own right, the creation of which threatened built environments aboveground: "Mine subsidence ruined buildings by slowly tearing at them or, on rare occasions, swallowing them entirely into the ground" (19). Central to this narrative are the workers, encompassing not just men but also women and children, who toiled under deplorable conditions and often lost their lives to make this modern material. By extending his gaze beyond cities and buildings, Christensen uncovers a fascinating set of landscapes involved in the production of architecture: mountainscapes, rural mining towns, scrapyards, and distant colonies.

Christensen concludes his book by interpreting the cover photograph as follows: "Steel in all its exactitude is depicted as an abstraction of modern society" (181). This image, devoid of workers, natural landscapes, or built environments, places steel at the forefront as the central protagonist. While Christensen does not explicitly align himself with new materialist thinkers like Bruno Latour, it is worth considering what a reading informed by these perspectives might unveil about the relationship between steel and architecture. For example, as industries and businesses close their doors as a result of economic and cultural shifts, how does the material itself persist and continue to shape future generations, industries, and landscapes? More broadly, how do historical industries like iron and steel determine what types of environmental futures are possible for a given culture, nation, and landscape? The long life cycles of materials, from their origins to their ghostly afterlives, further emphasize why delving into material histories can complicate our thinking about built environments and the high stakes of their production.

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Note

1. Peter H. Christensen, *Germany and the Ottoman Railways: Art, Empire, and Infrastructure* (New Haven, Conn.: Yale University Press, 2017).

Stuart Cohen

Frank L. Wright and the Architects of Steinway Hall: A Study in Collaboration

Novato, Calif.: ORO Editions, 2021, 316 pp., 250 illus. \$35 (paper), ISBN 9781951541507

Lisa D. Schrenk

The Oak Park Studio of Frank Lloyd Wright

Chicago: University of Chicago Press, 2021, 326 pp., 1 table, 179 b/w illus. \$35 (cloth), ISBN 9780226318943

Only lately has the narrative of Frank Lloyd Wright as a fully formed, naturally inspired, singular genius been dislodged, slightly, from its pedestal in the history of American architecture. That such a heroic view of the man has persisted is due in part to Wright's effectiveness at creating his own narrative so definitively that it has become difficult to imagine alternatives. Two new books, *Frank L. Wright and the Architects of Steinway Hall*, by Stuart Cohen, and *The Oak Park Studio of Frank Lloyd Wright*, by Lisa D. Schrenk, challenge the outsize myths surrounding Wright by situating the architect within the specificity of his environment, demonstrating that he was, not surprisingly, a product of his interactions with people, space, and procedures.

Cohen's history begins and ends first, chronologically: a study of Wright's brief and sporadic time in the loft of Steinway Hall in the decade between 1897 and 1907. The top floor of the building, one of Dwight Perkins's first projects after he left Daniel Burnham's office, was occupied by young architects, many of whom were part of the group later remembered as "the Eighteen." Cohen, a practicing architect, recognizes the opportunities that a loft filled with young architects attempting to establish their own practices might have presented; his study, which is loosely informed by sociologist Michael P. Farrell's work on collaborative groups, focuses on "the theft, collaboration, or intellectual cross-fertilization" (10) that happened on that upper floor of Steinway Hall. With an architect's eye for formal analysis, Cohen traces the shared architectural ideas that appeared in the work of Perkins, Wright, Myron H. Hunt, and Robert C. Spencer.

The book is divided into nine chapters of varying lengths, and it begins with

an exploration of the disciplinary milieu in Chicago at the turn of the century, particularly as it might have been experienced by the generation of proud western architects inheriting Louis Sullivan's architectural, rhetorical, and philosophical contributions to the city. Cohen pays close attention to how the theory of Pure Design might have traveled through the meetings of the Chicago Architectural Club or the Arts and Crafts Society, or passed between the Eighteen as they lunched about town. His observations are historically relevant but also functional, because Cohen, like many scholars, relies on formal aesthetics and compositional analysis to trace the exchange of architectural ideas.

In addition to sharing the "big attic," as Wright later described it, Perkins, Wright, Spencer, and Hunt—Cohen is interested in the first three more than any others on Steinway's rotating roster—shared a receptionist, stenographer, telephone, and other "impersonal expenses," including, sometimes, employees. It was an experimental, economical, and, as Cohen demonstrates, productive arrangement, resulting in projects with similar design features that elucidate how the young designers resolved certain formal questions. Cohen points to the layout of Spencer's farmhouse plans published in the *Ladies' Home Journal*, which resembled the Ella Gould cottage that Perkins (or Walter Burley Griffin, more likely) had designed a year earlier and also preceded Wright's Robert Lamp House of 1903; the great room that was emphasized in both Wright's and Spencer's cruciform plans; the half-timbering in Spencer's Stanley Grepe House and Wright's Nathan Moore House; and even how the University Congregational Church by Pond & Pond (brothers Irving K. Pond and Allen B. Pond were just down the hall in Room 1102) was potentially redeveloped by Wright at Unity Temple. Although the details of how the office functioned are lost—none of the architects kept contemporaneous written records—Cohen offers an explanation to fill the gap: that the visual and intellectual proximity in the loft could not but have resulted in the same, architecturally.

There are three exceptionally welcome studies in Cohen's text, each the subject of a chapter. One on the Luxfer Prism Company—the company that

inspired Wright's first high-rise designs as well as competition entries from Spencer and Adamo Boari—demonstrates how the young architects were thinking about windows. The Abraham Lincoln Center, the product of an uneven collaboration between Wright and Perkins, is a visible vestige in the later work of both architects. And a chapter on Robert Classon Spencer incidentally reveals how he was responsible (in the byline, at least) for establishing the framework used to interpret the work of Frank Lloyd Wright. Although Cohen places Wright within a community of like-minded thinkers, he is at his best when writing about Wright alone (some patience is required with the ORO Editions publication, however; Cohen's text deserved a more thorough line edit).

Wright regularly moved his office between downtown Chicago buildings: into Steinway Hall from the Schiller Building, then to the Rookery, and back to Steinway. And though he reserved specific hours to meet with clients downtown and had, as Cohen convincingly argues, productive relationships in his offices there, Wright later claimed to have preferred the environment of his suburban studio in Oak Park. This is the subject of Lisa Schrenk's *The Oak Park Studio of Frank Lloyd Wright*. Much as Cohen does, Schrenk looks at Wright's immediate environment during the early part of his career, here defined as the span from 1898 through 1908. A professor of architectural history at the University of Arizona (and formerly the education director for the Frank Lloyd Wright Home and Studio Foundation), Schrenk seems to be motivated by a desire to dispel the myths and inaccuracies around Wright's early career. Her book, however, does much more than that: it presents a systematic analysis of Wright's architectural development alongside discussion of his office procedures, his relationships with associates, and, most interesting, his use of the studio as an experimental laboratory of spatial organization, material installation, and geometric exercises.

The three middle chapters of the book command the narrative, describing the "early," "middle," and "last" eras of the studio. Following two introductory chapters that recount Wright's personal and professional contexts, the third chapter, on the early years of the Oak Park

studio, is vibrant in both content and form and reveals Schrenk's institutional knowledge of the Home and Studio complex. Like Cohen, she is attentive to the collegiality of the studio, where the atmosphere resembled that at Steinway Hall, with its free exchange of experimental ideas among a group of young designers—not an unexpected coincidence, as Wright presided over both "offices" simultaneously. In the stead of Spencer, Hunt, and Perkins were Walter Burley Griffin, Marion Mahony, Charles White, Barry Byrne, Isabel Roberts, William Drummond, and George Willis, plus a constant stream of visiting artists, guests, sisters, and children. From this setting, new ideas and practices emerged. Schrenk's analysis of the scant primary sources shows that many of these ideas and practices that have often been attributed to Wright's genius alone—like the unit system of design, attention to the way a building sits within the landscape, and the use of half levels to imply interacting volumes of space—were the results of collaborations among many architects, Griffin and Mahony in particular.

Such camaraderie was lacking in the middle and last years of the studio, when Wright's career was on the rise. More projects in the office required greater division of labor, and tense relations developed between Wright and his employees. As the studio's esprit de corps faltered, Wright sought fulfillment elsewhere, traveling to Japan, engaging in love affairs, and, most important for his career, securing commissions from Darwin Martin, who became his long-standing client and patient patron. The decline in Wright's engagement with his immediate Oak Park environment corresponded to lean years in the studio, and Schrenk, in her comprehensive approach to the period, makes his 1909 departure from the suburb appear almost inevitable.

It is, however, at the point when Wright leaves Oak Park that the studio becomes the true subject of Schrenk's study, and the book reveals itself as an homage to a building rather than to its architect. Although Wright took an experimental approach to his own workspace, testing ideas and materials before installing them for clients, he drastically reconfigured the Oak Park building after he returned from his "spiritual hegira" and moved to the Helena Valley in

Wisconsin. The 1911 renovation relocated his family into the studio space and provided an income-generating rental property in the old house. It became home to visiting artisans, including Rudolph Schindler, as well as the Art League, was eventually sold to Darwin Martin, inherited by his son, and sold again, until, in 1947, the Nooker family began uncovering it from a state of disrepair. It has been painstakingly restored to its condition in 1909, the last year it served Wright in his long, tumultuous career.

Despite both Cohen's and Schrenk's intention to show that the mythic figure of Wright emerged from a specific context of people, ideas, and environments, neither book convincingly demythologizes him. Part of this is due to the fact that in attempting to navigate the dearth of primary sources and verifiable details about Wright's early career, the authors have relied on Wright's own retrospective memory for assistance, as documented in his writings *An Autobiography* (1932) and *A Testament* (1957), as well as on the reverberations of these texts as they appear in countless secondary sources, without the suspicion that might attend these self-preserving projects. Relying on Wright for facts, evidence, or insight requires a comprehensive, anachronistic approach to the episodes of his career. What might have been a defined study becomes rationalized by Wright's retroactive narrative; that recursion reaffirms the overall narrative of his eventual, and therefore inevitable, success. This is mirrored in the structure of both Cohen's and Schrenk's books, which are well researched but conclude with extensive appendixes, suggesting that the central figure of Wright is not nearly as plastic as the spaces he designed. This lingering ghost can deter the interest of a new audience as much as it continues to attract Wright's reliable readers; both of these books will certainly appeal to the latter. *The Oak Park Studio* will also be particularly interesting to the historic preservation industry for its detailed descriptions of the transformations of the Home and Studio as well as Schrenk's thoughtful and transparent portrayal of the decision-making process behind the complex's preservation.

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Volker M. Welter

Tremaine Houses: One Family's Patronage of Domestic Architecture in Midcentury America

Los Angeles: Getty Research Institute, 2019, 224 pp., 1 chart, 50 color and 67 b/w illus. \$55 (cloth), ISBN 9781606066140

In architectural history, scholars too rarely attribute works of architecture to collaborations between architects and their clients. They are more likely to explain a work in terms of the architect's design proclivity or, at times, the skill of the client. Fortunately, Volker M. Welter takes a very different approach in *Tremaine Houses*, which focuses on key works of modern art and architecture while emphasizing the architectural patronage of the Tremaine family. The brothers Burton and Warren Tremaine and their wives, Emily Hall and Katherine Williams, hailed from a history of affluence. The Tremaine family holdings included the Miller Company, a light-fixture business in Meriden, Connecticut, and ranch lands near Mesa, Arizona. The trove of archival materials associated with the family and its architects, including those housed in the Art, Design & Architecture Museum of the University of California, Santa Barbara (where Welter is a professor of history of art and architecture), provides the basis for Welter's analysis of their many "country houses" and other projects. Additionally, the Tremaines, especially Burton and Emily, created important collections of modern art. Consequently, Welter explores their patronage broadly within the contexts of both art and architectural modernism.

Welter's study of the Tremaine houses demonstrates that architectural modernism cannot be uniformly identified with individuals and movements seeking societal change. The Tremaines, for example, promoted the aesthetics of modern architecture, but they also favored design that met the functional needs of their luxurious lifestyles. Their taste for architectural modernism advanced as they joined a broader community of art collectors and amassed a greater knowledge of modern art.

The Tremaines' fascination with the modern house began with Emily Hall, who, with her first husband, Baron Maximilian von Romberg, commissioned the Santa Barbara architect Luth

Maria Riggs to design Brünninghausen (1936–38), a residence in Montecito, an affluent suburb east of Santa Barbara. The couple began collecting modern art in the late 1920s with a painting by Georges Braque, later followed with works by Yasuo Kuniyoshi and Giorgio de Chirico. By 1934, Hall and von Romberg initiated their collaboration with Riggs, whose design fused the simplicity and streamlined quality of art deco—achieved in no small measure by the interiors and furniture design of Paul T. Frankl—with the simplified forms of traditional architecture and fine craftsmanship that Riggs developed in the office of Santa Barbara architect George Washington Smith, a key figure in the development of the Spanish colonial revival style.

In 1944, Warren and Katherine Tremaine also began to explore building a modern house in Montecito. Initially, they contacted Riggs, but because of wartime building restrictions she had been compelled to find employment as a designer of Hollywood movie sets. Although her availability was limited, Riggs and local landscape architect Lockwood de Forest surveyed the Tremaine property and identified what they believed to be the best location for the house. In December the Tremaines hired Richard J. Neutra to design the house, and he incorporated several of Riggs and de Forest's recommendations. Since emigrating from Vienna in the 1920s, Neutra had evolved from a practitioner of European International Style modernism into a California architect who modified his designs in response to the region's mild climate. A signature feature of Neutra's domestic architecture was its openness, both visually and physically, to the natural surroundings. At the Tremaine House, as well as at Neutra's contemporary Kaufmann House in Palm Springs (1946), the floor plan comprised two L-shaped components. Welter presents the evolution of Neutra's design, beginning with his earliest drawings. However, he omits the final floor plan, making it difficult for the interested public to grasp the architect's design in totality. Fortunately, Welter includes numerous Julius Shulman photographs, which clarify the layout of the house as constructed.

The materiality of the Tremaine House is central to its larger significance within modern and American