

The Wainwright Building: Monument of St. Louis's Lager Landscape

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In 1891 a ten-story building of red brick, granite, and terracotta rose on the corner of Seventh and Chestnut Streets in the heart of downtown St. Louis.¹ The Wainwright Building, an archetypal modern structure, is well known as the first design to express clearly the quality of “tallness” in the new steel-frame skyscrapers that emerged near the end of the nineteenth century (Figure 1). The standard architectural historical texts place great emphasis on the innovative and functionally expressive composition of the Wainwright’s façade: a tripartite arrangement of stores at the base, a shaft of office windows, and mechanical systems in the decorative cornice at the roofline. Historians attribute even more importance to the building as a turning point in the oeuvre of one of the prophets of modernism, Louis Sullivan. To Sullivan the Wainwright was a watershed moment in his career. Years after he designed it, he wrote to fellow architect Claude Bragdon: “As to my buildings: Those that interest me date from the Wainwright Bldg., in St. Louis. . . . All my commercial buildings since . . . are conceived in the same general spirit.”² This comment upholds the later critical reception and interpretation of the building as an icon of modernism.³ Few have questioned Sullivan’s account of the design’s genesis or looked beyond the formal organization of the façade. Although there has been significant revisionist scholarship on the history of skyscrapers, earlier interpretations of the Wainwright Building remain largely intact.⁴ This article offers a fresh perspective and a new identity for this iconic building, a monument of St. Louis’s “lager landscape.”

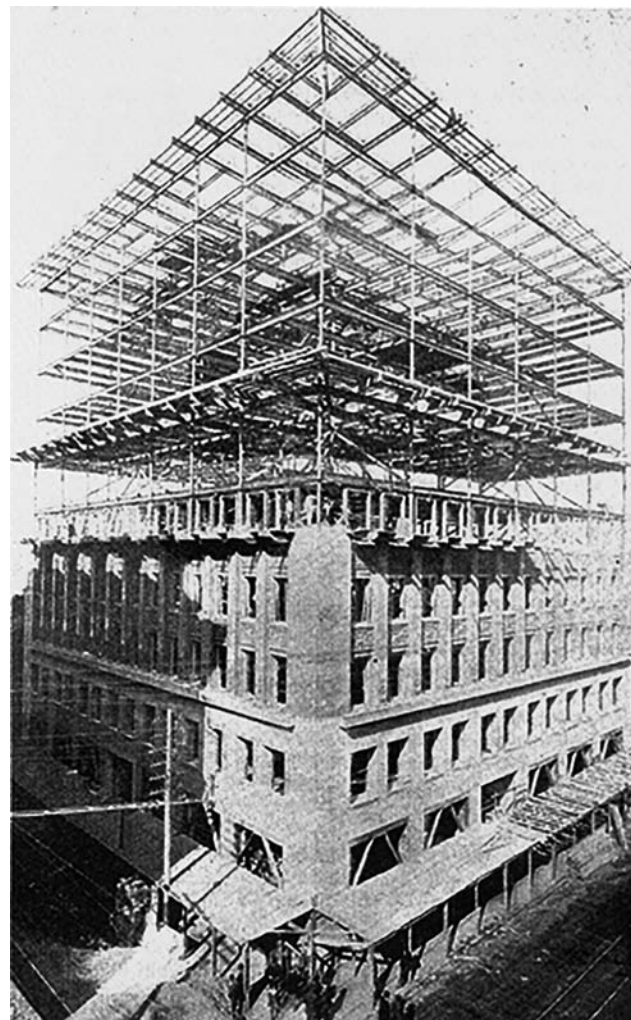


Figure 1 Adler & Sullivan, Wainwright Building, St. Louis, 1891, under construction (*Engineering Magazine*, November 1892).

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In the late nineteenth century, St. Louis was home to more than twenty breweries, dozens of allied enterprises, and tens of thousands of newly arrived Germans.⁵ The production, marketing, distribution, and consumption of lager beer shaped a distinctive cultural landscape in the city. Humble spaces as well as great ones made up the lager landscape: massive breweries, cooperage factories, beer delivery routes, workers' homes and union halls, corner saloons and beer gardens where steins of lager accompanied performances of German opera. The Wainwright Building, located in the heart of the central business district, was remote, geographically and experientially, from the ethnic brewing enclaves on the city's north and south sides. Suffused with steam from belching smokestacks, these industrial neighborhoods were redolent of cooked barley, delivery stables, and the sweat of workers hauling kegs of beer. By contrast, the managers, secretaries, and clerks who worked in the Wainwright Building inhabited an elegant, high-style, well-lit, well-ventilated, genteel white-collar world elevated high above the traffic, noise, and smells of the downtown streets. Despite its spatial and functional distance from the breweries, this skyscraper was a fundamental element of the "lager landscape," linked to it both architecturally and economically.

Within the German American brewers' culture of the Midwest, the Wainwright Building's client was more important than its architect. Ellis Wainwright, of English and German parentage, was the scion of the Wainwright Brewing Company—a small but successful lager beer enterprise founded by his father in 1850. Following in the path Adolphus Busch of St. Louis and Frederick Pabst of Milwaukee, Wainwright turned to architecture and visual culture to promote his brewing business and to define his identity as a wealthy businessman, city builder, and community leader. Together with Sullivan he developed his skyscraper as a symbol of his personal success, but also as the refined front office of brewing and related industries: real estate, insurance, railroads, and the building trades.⁶ Developing this reading of the famed skyscraper requires close contextual comparison of the biographies and buildings of Wainwright and Pabst, a new assessment of the sources and meaning of the terracotta ornament on the Wainwright's façade, and analysis of beer advertisements, German American festive culture, and business and labor history. The result is not only a reinterpretation of a single building but also a story of the historic role of beer in the making of modern architecture and the American urban landscape.⁷

From Speculative Investment to Symbolic Monument

The Wainwright Building began as a simple real estate investment but quickly developed into a more ambitious

project. The initial impetus came from the formidable Catherine Wainwright. After her husband's death in 1874, her son Ellis officially took over the brewery, but she worked alongside him to expand the business amid fierce competition in St. Louis. Under their management, it continued to thrive and grow. Fueled by the profits, the company began to branch out from beer into real estate and other enterprises in the late 1880s.

The transition to real estate was in many respects a common one among brewers. In addition to the constant enlargement of their own brewery premises, most were also active participants in the development of the neighborhoods surrounding their plants, constructing houses, storefronts, and other rental properties. In the late 1880s many brewers began to acquire and construct saloon properties. Expanded production, made possible by the mechanization of the brewing and storage process, required a steady market for the increased supply of product. In St. Louis, fierce competition among the city's twenty breweries for the custom of local saloons led brewers to establish contractual relationships with saloon keepers; brewers often helped them pay their rent, provided them with fixtures, and even bought land to help them build their own saloons. This "tied" the saloons in exclusive relationships to their "home" breweries.⁸ In addition to the saloons, some brewers owned and operated beer gardens and amusement parks as retail outlets for their products. As a result, most brewers had extensive real estate knowledge and holdings throughout their cities and assumed the de facto role of urban developers.⁹ Brewers were so involved in real estate that many later turned to real estate full-time during the dark days of Prohibition.¹⁰

The Wainwrights did not wait for Prohibition to make this transition, and Catherine Wainwright led the way. Known for her business acumen, she established the C. D. Wainwright Investment Company and became a respected player in the St. Louis real estate community. In May 1890 she purchased a plot on the corner of Seventh and Chestnut Streets. It was a desirable piece of land in close proximity to the newly completed Post Office and Customs House, near the heart of a newly solidifying business district that extended from Fifth to Twelfth and from Chestnut to Pine. In 1888 a commercial building boom was under way in St. Louis, with more than fifteen office buildings of over seven stories under construction.¹¹ In 1892 the Wainwright Building was part of a \$20 million surge in construction in that area of downtown (Figure 2).¹² Catherine initially intended her purchase of the site as a simple speculative venture, but within weeks it had taken on an architectural dimension.¹³ By June 1890 reports that a building would be constructed on the site began to appear in local newspapers.¹⁴ Given the available new technologies of steel-frame construction and elevators, and the increased return



Figure 2 "Panorama of High Buildings, St. Louis," 1903 (A. Selige postcard, author's personal collection).

on investment that tall buildings made possible, the Wainwrights decided to build a skyscraper on the property.

It is not surprising that they would embrace this new building technology. The Wainwright Brewing Company had just completed construction of a massive and advanced model brewery plant in 1884, with three seven-story buildings and the latest mechanical refrigeration machinery available. As a result, the company had doubled its output.¹⁵ It was only a small leap for the Wainwrights to consider the investment implications and possibilities of a tall office block. Plans for a nine-story building, probably by St. Louis architect Charles K. Ramsey, appeared in the *St. Louis Globe-Democrat* by September 1890. They included 225 offices arranged around a light court at the rear of the plot. This plan allowed the appearance of a square building while ensuring maximum light for the offices. The *Globe-Democrat* published a crude drawing of a relatively simple nine-story building with Romanesque revival details in November that year (Figure 3).¹⁶

It was around this time that Ellis Wainwright began to show interest in the project. Initially he was an almost silent partner in the real estate deal. He was abroad with his wife, Charlotte, while Ramsey drew up the original plans. By late November, however, he had hired the firm of Adler & Sullivan—rising stars of the Chicago architecture scene—to redesign the building's exterior (Figure 4).¹⁷ What sparked this interest in the project and the change in designer? The transformation of the building from pure speculation to symbolic monument seems to have been rooted in Wainwright's competitive response to the architectural activities of another brewer: Captain Frederick Pabst of Milwaukee.



Figure 3 Charles Ramsey, Wainwright Building, St. Louis, 1891, preliminary scheme (*St. Louis Globe-Democrat*, 7 Nov. 1891).

Buildings as Symbols of Individuality in an Age of Consolidation

As Maureen Ogle has chronicled, business rivalry in the brewing industry was frequently expressed through art and architecture, and Pabst led the field both economically and architecturally.¹⁸ Beginning in 1889, when he gained control of the Best Brewing Company, Pabst engaged in a series of

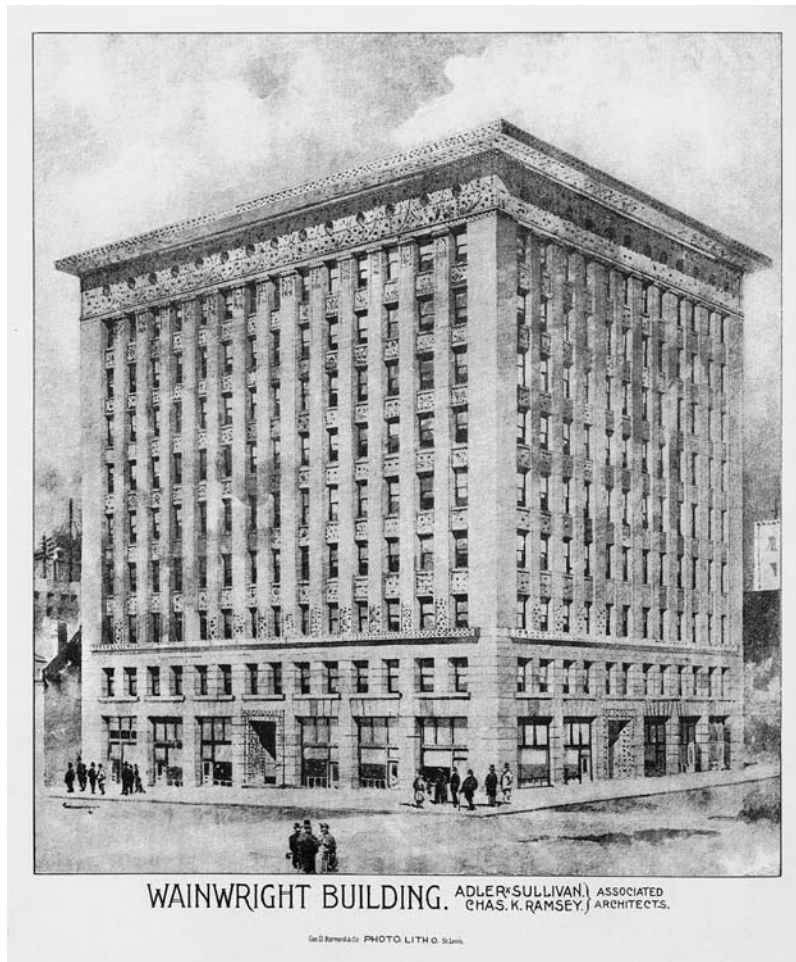


Figure 4 Adler & Sullivan, Wainwright Building, St. Louis, 1891, preliminary scheme (*The Wainwright Building*, Adler & Sullivan, Charles K. Ramsay, Associated Architects [St. Louis: Wainwright Real Estate Company, 1891]; courtesy of the St. Louis Public Library).

architectural projects that celebrated his business success and his German American identity and helped to establish him as a booster and cultural leader of Milwaukee. Early in 1890, he began construction on an impressive new Flemish Renaissance revival mansion for his family, designed by the prominent local firm of Ferry & Clas. In 1891 he hired Adler & Sullivan to design the interior of Milwaukee's Neue Deutsche Stadt-Theater and Chicago's Solon Spencer Beman to build a skyscraper in Milwaukee's city center (Figure 5).

Pabst's activity was not only a personal expression of his status but also an assertion of local and regional autonomy and culture. Beginning in 1887, American brewers faced attempts by English investors to organize the brewing trade into large corporations of the kind that dominated many of the other industrial enterprises of the day: oil, steel, coal, and meat, to name a few.¹⁹ The 1880s had been a time of tremendous change and challenge for American brewers. What had once been a constellation of small-scale, local artisanal enterprises conducted by German immigrant families working in unpretentious sheds was fundamentally transformed by industrialization into a mass-production enterprise housed in massive, often elaborately designed, factory complexes manned by

armies of workers. The introduction of steam-driven engines and mechanical refrigeration in the early 1880s resulted in an exponential increase in brewing capacity. Breweries that had been producing five thousand barrels annually could now increase to ten or twenty times that amount, if they had the capital for investment in new equipment and the expertise to design new facilities. Given the potential of the American brewing industry, it is not surprising that outside investors began to take an interest in its growth and consolidation. Several groups from London sought to reorganize the industry into syndicates, and they were largely successful in some cities, including Syracuse, Indianapolis, and Chicago.²⁰

Both Pabst and Wainwright faced this change and resisted it, celebrating their control and the local identities of their businesses through architecture. For Pabst, 1889 was a year to celebrate his independence, not knuckle under to a new owner. After years of working in partnership with others in running Best Brewing, he assumed the company's directorship and changed the name to the Pabst Brewing Company.²¹ He rejected offers to sell to the English syndicates. It was in this context that he made plans to build the new house, the German theater, and his own downtown skyscraper. Pabst



Figure 5 Solon Spencer Beman, Pabst Building, Milwaukee, 1891 (postcard, author's personal collection).

understood early on that tall building projects could do more than make money—through visibility, boldness, and novelty, they could lend prestige and advertising value to their owners' businesses. His skyscraper helped him to celebrate and firmly establish the identity of his company, and to assert its independence and leadership in the local economy.

Pabst acquired a prominent site on Grand (now Milwaukee) Avenue with plans to build a ten-story building block that would situate his company and himself squarely in downtown Milwaukee.²² As one newspaper account described it, the new building would be "a perpetual monument to the wide awake capitalist who is not afraid to invest his millions in his home city."²³ The brick and terracotta Pabst Building was 225 feet tall and featured fireproof steel construction with innovative foundations. Plans called for two hundred offices, ground-level stores, a banking floor, and, in the basement, a large and extremely elegant saloon and restaurant. The design of the building affirmed its semicivic role in a decidedly Germanic vocabulary, reminiscent of Hanseatic city halls. Described by local reviewers as Flemish Renaissance in style, it featured

stepped gables, a clock tower, and round-arched arcades. It stood out on the skyline, visible from all sides and from a distance. One review noted that the turrets could be seen for miles by boaters on the lake.²⁴ The building's size and style set it apart from the surrounding cityscape, and until the construction a few years later of Milwaukee's similarly Germanic city hall, the Pabst building was the city's most prominent architectural landmark.

This early skyscraper was meant to make money, but it was also intended to showcase the Pabst name and Pabst products. In addition to advertising the company and providing a frame for elegant and respectable consumption of beer, it positioned Pabst as a central player and booster in the growth and commercial development of the city of Milwaukee. As the premier office building of its day, it was home to many of the city's most prominent business and civic enterprises: insurance companies; law firms; the Milwaukee Law Library; land and real estate agents and commissioners; pork, cattle, and lumber companies; the Merchants' Association; and the Manufacturers' Club. Curiously, the building did not house the offices of the Pabst Brewing Company itself, but it was home to such Pabst-sponsored enterprises as the Wisconsin National Bank, which Frederick Pabst initiated to help fund development in his home city and state.

The news that Pabst was building a skyscraper, well publicized in the local Milwaukee press and in brewing circles, may well have inspired Ellis Wainwright's change in attitude about his mother's skyscraper project in St. Louis. The design for the Pabst building was not published in *Inland Architect* until early 1891, but it is likely that Wainwright knew about it and Pabst's other projects through the brewing community.²⁵ Personal and business relationships linked the members of the midwestern brewing community together, and they followed each other's activities closely. Wainwright, as president of the National Brewers' Association in 1890, certainly knew Pabst personally, and they probably met at the association's annual meeting held that May in Washington, D.C. There are remarkable similarities in their contemporaneous projects. Both brewers disdained local architects for their jobs and hired Chicagoans. As noted above, Catherine Wainwright at first engaged local architect Charles Ramsey, but her son brought in Adler & Sullivan. Similarly, Pabst chose a Chicagoan for the design of his building, passing over local practitioners like Henry Koch in favor of Solon Spencer Beman.²⁶ It was perhaps Beman's ten-story Pullman Building in Chicago, with its corner tower and Romanesque revival base, that provided the most direct model for Pabst's project. Both buildings served as symbols of pride for the companies they represented and the men who built them.

Pabst's example offered Wainwright a model for a building that would be more than a moneymaking project. It would symbolize his interests in brewing and real estate. Although

Ellis had inherited his business from his father, he was successful on his own terms and had become one of the most prominent members of St. Louis's business community. By the age of twenty-four he was seen locally as one of the "young men at the helm" of the city, "one of the best examples of youthful vigor in the mercantile world of St. Louis."²⁷ He was rewarded with several commercial and civic leadership roles, including the directorship of the Mercantile Exchange and seats on the boards of the Annual Trade Exposition, the St. Louis Public Library, and the School of Fine Arts at Washington University. A major art collector and clubman, Ellis was married to one of the city's most elegant and glamorous women. The couple traveled extensively and lived lavishly, in a style befitting robber barons.

Wainwright did not just make his fortune through brewing; he played a large and active role in the industry and identified strongly with it. Although his St. Louis brewery was smaller than those of Anheuser-Busch and Lemp, Wainwright wielded significant influence in St. Louis and in the field of brewing. As a young manager of his family's company, he worked on the brewery floor to learn the business and taught himself German so that he could speak to his workers. His genial, good-humored manner made him one of the best-liked and most widely respected brewers in town, and he became a leader and representative of his industry, especially on the delicate issues of temperance and prohibition.²⁸ As early as 1881, he was instrumental in organizing a "pool" of brewers to act as a protective association that would control prices and safeguard the interests of the trade.²⁹ He also took on the role of grain inspector for the Mercantile Exchange, with responsibility for the oversight of barley, one of the primary ingredients used in brewing beer.

Wainwright's most important role in terms of his new skyscraper was as the organizer of the St. Louis Brewing Association (SLBA). At the end of the 1880s, Wainwright and the city's other small brewers faced pressure to formalize their price-fixing pool into a consolidated enterprise. Concerned about growing labor issues, threats from temperance interests, and the economic pressures they faced against the large, vertically integrated breweries like Anheuser-Busch and Lemp, the small brewers may have found the prospect of selling out to English investors increasingly attractive. As was the case for so many businesses of that era, consolidation seemed a necessary step to stay alive. Wainwright was determined that if consolidation was to take place, it would be through a locally owned and managed effort rather than an international conglomerate.³⁰ Together with a few of his brewing colleagues he formed the SLBA in June 1889. The individual breweries combined under a shared management and distributed shares in the SLBA to stockholders. Wainwright served as the association's first president. The newly consolidated SLBA was an attractive target for takeover by

the English, and just five months after its founding, one group sought to buy out the shareholders. Most succumbed to the extremely generous offers, which made them instant millionaires. Wainwright steadfastly resisted, retaining control of his shares and continuing his service as SLBA president.

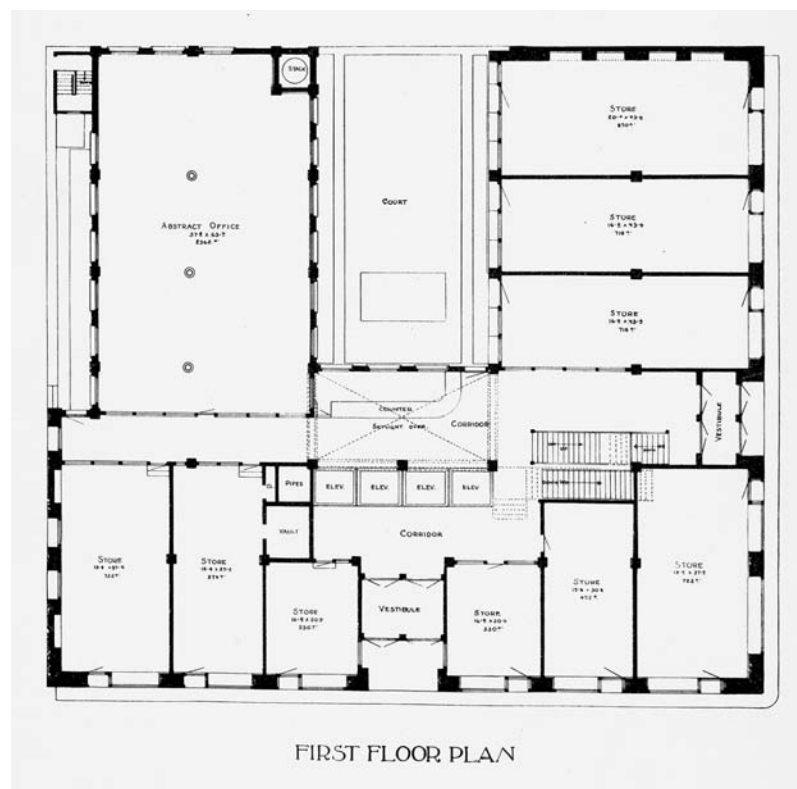
In the year the Wainwright Building was constructed, Ellis Wainwright went from being a small if socially prominent brewer to administering and managing a brewing empire; he thus joined the ranks of industry leaders like Busch and Pabst. Like them, he also began to move beyond brewing—into real estate, street railways, communications, insurance, and other concerns.³¹ He invested in utilities such as the Kinloch Telephone Company and the St. Louis and Suburban Street Railways, assumed the directorship of a bank, and, along with Adolphus Busch, bought baseball clubs in Chicago and Baltimore.³² Donning the mantle of civic leadership, he also donated extensively to philanthropic causes such as the St. Louis Public Library, the St. Louis Art Museum, and the School of Fine Arts at Washington University.

By 1890 Wainwright had clearly embraced his new role as financier and philanthropist, a change that had immediate spatial implications. No longer was he situated primarily at his brewery; rather, he occupied a suite of downtown offices. In his father's era, most brewers not only worked at their breweries from dawn to dusk but also lived on or very near the premises. Ellis Wainwright departed from that practice, building an elegant house for himself and his wife in the fashionable Midtown neighborhood and working downtown at the SLBA's offices in the Bank of Commerce Building.³³ With his mother's building project, he saw the opportunity to combine speculation in real estate with a powerful architectural declaration of his new corporate and civic roles.

Pivot Point of Brewing and Real Estate

As Deryck Holdsworth has suggested in this journal, early skyscrapers were more than artistic and structural innovations: they were the dense, honeycombed matrices of wider, interconnected economic landscapes and systems.³⁴ In the case of the Wainwright Building, the project became the headquarters, the center, the pivot of Ellis's new white-collar world and a symbol of the evolution and diversification of the brewing industry into an enterprise with broad interests in real estate and other city-building enterprises.³⁵ As newspaper accounts of the building's opening suggest, Wainwright planned it to house real estate offices and serve as a center for the burgeoning real estate market in St. Louis. The building's plans include space for a title abstract office on the ground floor, along with shops facing the streets (Figure 6). Such an office, housing information on all the records pertaining to particular properties, would make the building a hub of the local real estate community. Wainwright confirmed his intention when,

Figure 6 Adler & Sullivan, Wainwright Building, St. Louis, 1891, ground-floor plan (*The Wainwright Building*, Adler & Sullivan, Charles K. Ramsay, Associated Architects [St. Louis: Wainwright Real Estate Company, 1891]; courtesy of the St. Louis Public Library).



just a year after the building opened, he proposed that his building's courtyard be roofed over with glass to create a "rotunda" that could be leased to the newly organized Real Estate Exchange.³⁶ Such a move would solidify the identity of the building as the center of the city's real estate industry. Indeed, by 1893, more than fifteen real estate and investment firms, as well as a title search company, had moved into the building. Architects, engineers, builders, materials suppliers, and other real estate-allied enterprises occupied offices alongside them.³⁷

In addition to its role as home to the real estate and construction industries, the Wainwright Building was closely associated with the brewing industry. From its opening, the building housed the offices of the St. Louis Brewing Association. As president of the SLBA, Wainwright had the power to move the association from its previous quarters in the Bank of Commerce Building to his own eponymous building, where it occupied nearly the entire seventh floor. Here, the member breweries were controlled, and policies and prices were set. The building's reputation as the center of the city's brewing interests was cemented by the presence of two allied offices: that of Edmund Jungenfeld & Company, preeminent brewery architects, and that of the Gilsonite Construction Company, owned by a syndicate of brewers that included Adolphus Busch.³⁸ Known for skill and innovation in working with reinforced concrete, Gilsonite specialized in brewery commissions, which required waterproof and water-resistant

construction because of the excessive steam and condensation of the brewing process. In fact, this firm was involved in the construction of the Wainwright, which boasted a special, patented tile roof by Gilsonite, consisting of the company's trademark Asphaltic cement topped with a layer of felt and then covered with 1-inch-thick vitrified tiles.³⁹ The participation of this brewery contractor in the Wainwright's construction, and the presence of Gilsonite's offices in the completed building, is a potent demonstration of the Wainwright's place in the lager landscape, which included not only the spaces where workers made and consumed beer but also those places where higher-level functions occurred.

In addition to brewing and real estate, the Wainwright Building housed a variety of other business enterprises, a remarkable number of them connected to Wainwright himself. Shortly after the construction of his building, Wainwright invested heavily in the Missouri, Kansas, and Texas Railroad, so much so that the company named a town after him on the new line he helped to finance. In short order the railroad's offices were housed at the Wainwright Building. Wainwright was also a board member of the Union Casualty and Surety Company, organized in December 1892 to provide employers' liability, employees' accident, steam boiler, elevator, and other mechanical accident insurance policies; the company's directors were other prominent brewers.⁴⁰ The list of Wainwright Building tenants suggests that Wainwright conceived of the building as a pivot point for his varied interests and

activities, a convergence and an expression of the expansive world of brewing, real estate, and finance he was helping to shape.

Sullivan's Design

The design of the Wainwright Building, as envisioned by Sullivan, supported this vision. In Sullivan's view, a building should give expression to its function; it should convey its ownership and purpose. Just after the Wainwright was completed, he asserted that "buildings should possess an individuality as marked as that which exists among men, making them distinctly separable from each other."⁴¹ Sullivan's design for the building and its ornament helped give form and definition to Wainwright's new world, triangulating among the white-collar world of the skyscraper, the vernacular of the modern industrial brewery, and the "natural" world that was the source of the product it mass-produced.

Skyscrapers and Stock Houses

Embedded in the height, massing, shape, and scale of the Wainwright Building, as well as the composition of its façade, was an echo of brewery architecture: the stock house. At ten stories tall, the Wainwright was one of a new crop of tall buildings that would soon be called skyscrapers. It was not, however, the first tall building in St. Louis. In the age before the skyscraper, when the tallest commercial buildings were typically five or six stories, brewery buildings were among the tallest in the city, standing out on the skyline. Tallest were the stock houses, built up to ten stories high to house the lager brew as it flowed, by gravity, down through several stories to dark, cool storerooms, where it was then aged for a period of weeks. In the antebellum period this process took place underground, in natural caves that brewers expanded and fitted for their storage needs. Cooling by ice aboveground at first necessitated heavy wood frames and load-bearing walls to house the large blocks of ice above the storerooms. Temperatures could not be regulated precisely, however, and dripping water led to bad smells, bacteria, and rotting wood. The introduction of steel framing and reinforced concrete and the invention of mechanical refrigeration in the late 1870s transformed the spatial requirements for the storage of beer and gave rise to a new tall, well-insulated building type, with ammonia compression machines in the basement and a series of pipes that carried cool air upward.⁴²

Of course, there were significant functional differences between the stock house and the commercial skyscraper. Unlike the skyscraper office building, which relied on a regular grid of windows to illuminate the offices inside, the stock house had few windows, the better to keep cold air in.

The composition of the façades of both building types, however, shared a regular pattern of vertical shafts: buttresses in the case of the stock house and piers in the case of the office building. In both building types these elements helped to relieve the monotony of a large, undifferentiated façade while emphasizing verticality. The Wainwright Building—in its height, footprint, massing, and vertical shafts on the façade—nods in the direction of the square stock houses, especially the Wainwright Brewing Company's own stock house, which was just ten blocks to the south and completed in 1887 (Figure 7).

The linkage between the two Wainwright buildings, one commercial, the other industrial, was not unusual for Sullivan, either aesthetically or conceptually. The engineer's vernacular influenced both his designs and his writings. As Lauren Weingarden has suggested, his People's Saving Bank (1912) in Cedar Rapids, Iowa, is notable for stark towers that seem aligned with the grain silos of the nearby Cedar Rapids River, silos that helped to produce the wealth stored in the bank.⁴³ Not only did Sullivan (like many later European modernists) admire the forms generated by engineers, but he also integrated engineers' ways of thinking into his theories of architectural design. In his *Autobiography of an Idea* (1924), Sullivan clearly articulated the distinctive mind-sets of the architect and the engineer; further, he argued for a greater recognition among architects of engineers' abilities to recognize and solve the real design problems of the day.⁴⁴ Brewery architects like E. Jungensfeld & Company, pioneers in the hybrid role of architect-engineer, offered a compelling model. They were responsible not only for the exterior composition of often elaborately designed brewery buildings but also for the integration of complex technology and work flow within each structure.⁴⁵ The fusion of engineering and architecture in the Wainwright stock house must have attracted Sullivan's attention as he grappled with the problem of organizing and composing the Wainwright Building's façades.

The suggestion of a formal alignment between the Wainwright Building and the industrial vernacular of the Wainwright stock house is strengthened by the fact that Sullivan was actively thinking about cold storage warehouses when he sketched the Wainwright Building. In 1890 he and his partner Dankmar Adler began working on the massive Chicago Cold Storage Exchange and Warehouse, a project intended by its investors to be a civic monument that included office and retail space as well as storage rooms.⁴⁶ Like the Wainwright Building, the Chicago warehouse featured a tripartite arrangement of base (stores and offices), shaft (storage), and capital (machicolations along the roofline), and both structures emphasized their height through strong vertical elements (Figure 8).⁴⁷ Both included the latest in artificial refrigeration technology, including cooling coils in the walls and ceilings. Sullivan does not acknowledge any connections

Figure 7 E. Jungenfeld & Company, Wainwright Brewing Company stock house, St. Louis, 1887 (*Portfolio of Breweries and Kindred Plants Designed and Erected by E. Jungenfeld & Co. St. Louis* [St. Louis, 1892]; courtesy of the State Historical Society of Missouri, St. Louis Research Center).

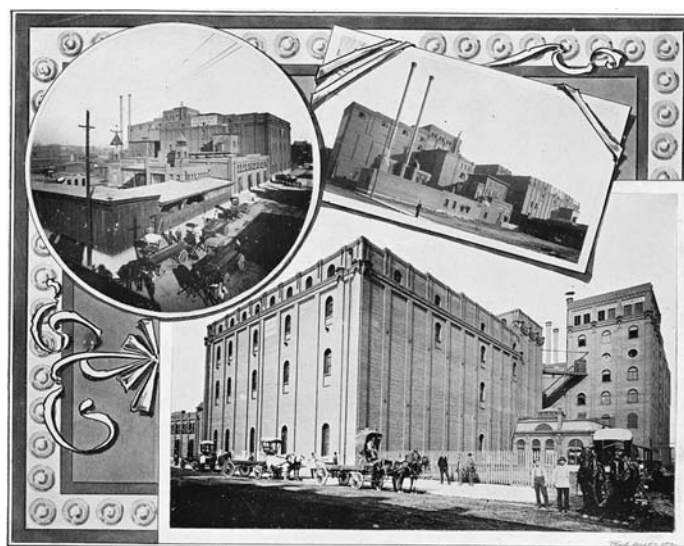


Figure 8 Adler & Sullivan, Chicago Cold Storage Exchange and Warehouse, 1890–92 (*Inland Architect and News Record*, Oct. 1890, plate following p. 36).



with cold storage in his own accounts of this “first skyscraper,” retrospectively remembering the design as a singular, spontaneous act of genius, “a very sudden and volcanic design” that marked “the beginning of a logical and poetic expression of the metallic frame construction.”⁴⁸ Contextual evidence, however, suggests that the design was grounded in a more mundane linkage between two new building types of the lager landscape: the skyscraper and the stock house.

Sullivan’s Design and the Cannabaceae Plant Family

The linkage between beer and the Wainwright Building is also present in the exuberant decorative terracotta that adorns the building’s entrance and façade. The predominant motifs throughout the building’s ornamental system are

abstracted images of two plants from the Cannabaceae family of erect or twining herbs: the common hop, or *Humulus lupulus*, and hemp, or *Cannabis* (Figure 9).⁴⁹ The hop is a bine (as opposed to a vine) plant, with stiff, prickly shoots that grow rapidly and twine themselves around whatever is in reach.⁵⁰ Common cultivation methods involve the regular placement of tall poles around which the plants grow (Figure 10). The female variety of the plant produces cone-shaped hop flowers used in beer brewing. These are framed by large, heart-shaped, multilobed leaves with coarse-toothed edges. The flower itself is composed of layers of green scales, much like an artichoke. The layering of the scales forms an oval shape, with a series of overlapping circles down the center. Images of the twining bine and the hop flower play a prominent role in the Wainwright Building’s Chestnut Street entrance façade, linking



Figure 9 Otto Wilhelm Thomé, “*Hummulus lupulus*” (the common hop) (illustration in Otto Wilhelm Thomé, *Flora von Deutschland, Österreich und der Schweiz* [Gera: Verlag von Fr. Eugen Köhler, 1886]).

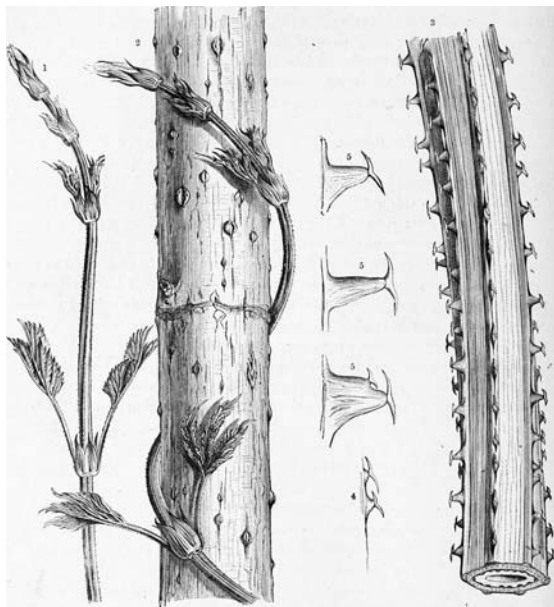


Figure 10 Anton Kerner von Marilaun, “Twining Hop” (illustration in Anton Kerner von Marilaun, *Natural History of Plants* [London: Blackie & Son, 1895], 688).

the building’s vertical elements with the vertical cultivation of the hop plant on tall poles. This connection between the verticality of a tall building and the hop poles is echoed in a 1916 advertisement for Budweiser that shows hop vines climbing the vertical piers of a stock house (Figure 11). Sullivan also drew upon historical sources of vertical vegetal ornamentation for the design of the rectangular terracotta panels around the doorway, such as the Flemish Renaissance strapwork that adorned the entry porch of Pabst’s mansion in Milwaukee. The ornament appears to emerge from within the building itself out onto the façade, as “bowers of intensely designed ornamentation” (Figures 12 and 13).⁵¹ One set of vertical panels depicts a swirling, twining hop vine with spiky horizontal forms, climbing in ovals around a central support (Figure 14). Another band of ornament is composed of a series of oval pods. Rising from a stem of multilobed, coarse-toothed leaves, the ovals part to reveal

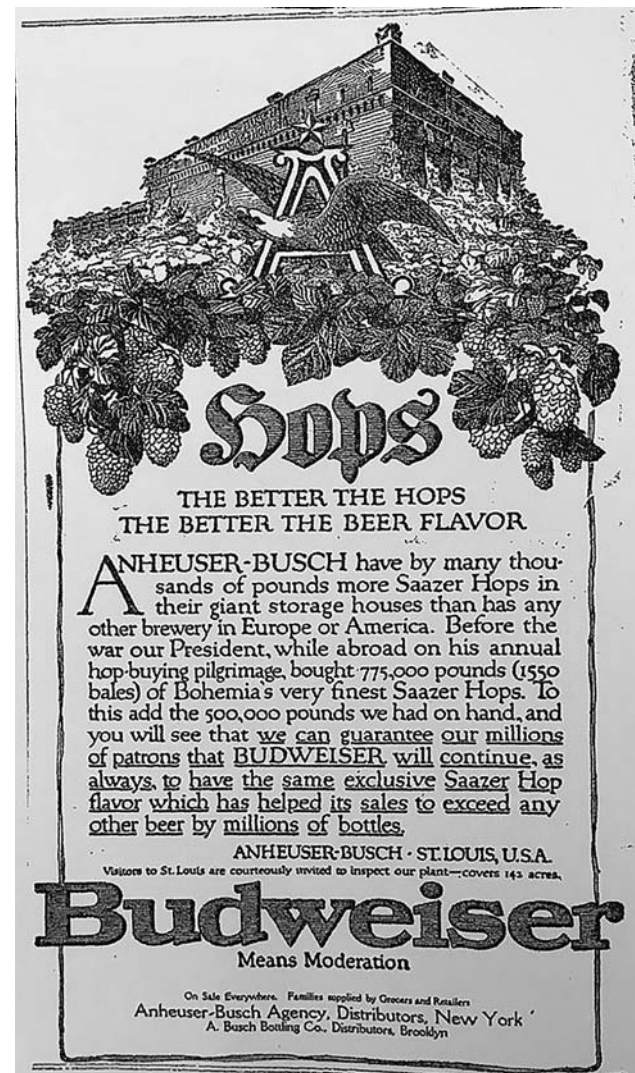


Figure 11 “Hops” advertisement for Budweiser (*New York Times*, 20 May 1916, 9).



Figure 12 Adler & Sullivan, Wainwright Building, St. Louis, 1891, Chestnut Street entrance (author's photo).

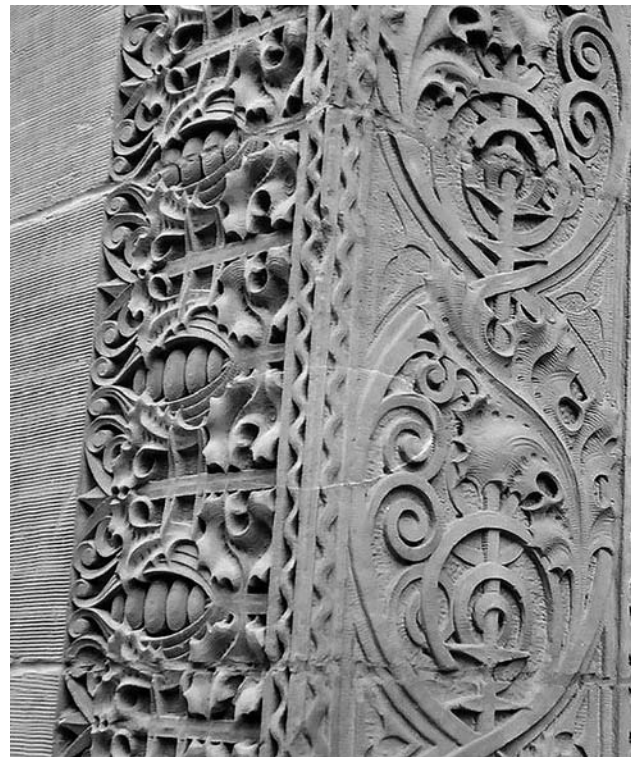


Figure 14 Adler & Sullivan, Wainwright Building, St. Louis, 1891, Chestnut Street entrance, terracotta ornament with vertical twining hop plant (author's photo).



Figure 13 Ferry & Clas, Pabst Mansion, Milwaukee, 1891, interior of front porch (photo courtesy of James Steakley via Creative Commons).

circular elements that recall the cross section of a hop cone (Figure 15). This oval pattern with circular elements at the center is present throughout the Wainwright façade, in the panels underneath the sixth and seventh floors, and in the capitals that terminate at the cornice (Figure 16).

The oval shape was not a new one to Sullivan. He had employed it in his ornamental designs for several of the projects he was working on at the same time, including the Auditorium Building and Schiller Theater in Chicago and the Dooly Block in Salt Lake City. In these instances, however, the ovals are flat abstractions repeated over and over as border designs. The ovals on the Wainwright façade are quite different, more explicitly representational as identifiable plants. They have a decidedly vegetal quality and have been described as tulip-shaped.⁵² That is a possible, even plausible attribution, until one considers the presence of *Cannabis* leaves in other parts of the decoration. Further up on the façade, two other sets of terracotta panels beneath the fourth- and fifth-floor windows are dominated by a nine-leafed motif (Figure 17). Although neither hemp nor hops are represented in the ornamental panels with scientific precision, their species identity is clear enough.⁵³ Both belong to the same plant family: Cannabaceae.

The suggestion that the Cannabaceae family, and hops in particular, was the source for Sullivan's decorative program is further supported by a close examination of the Wainwright

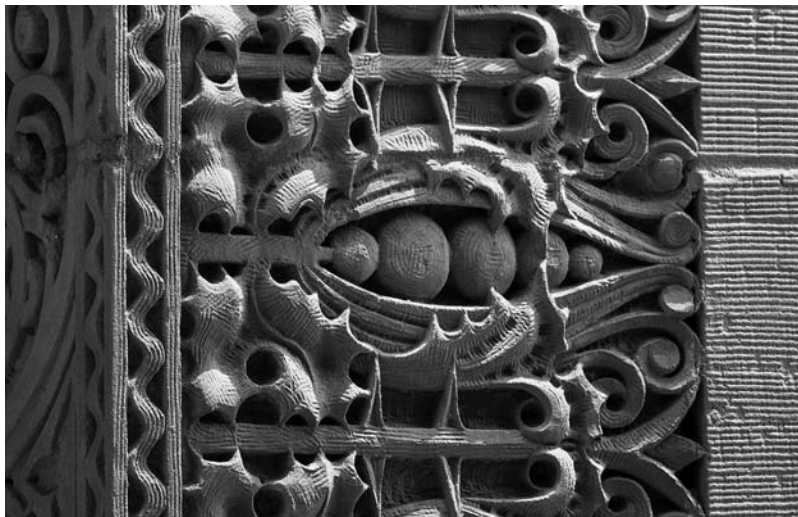


Figure 15 Adler & Sullivan, Wainwright Building, St. Louis, 1891, terracotta ornament with hop cone detail (author's photo).



Figure 16 Adler & Sullivan, Wainwright Building, St. Louis, 1891, terracotta ornament with hop cone detail (photo by Eric J. Nordstrom).

Tomb, which Sullivan designed during the construction of the Wainwright Building for his client's wife, who died unexpectedly from peritonitis in March 1891.⁵⁴ Ellis mourned his thirty-four-year-old wife deeply and commissioned a magnificent memorial to her. The simple, cubic, domed form of the tomb is decorated with running bands of ornament on all four sides, each slightly different from the others. On the front wall of the tomb the conical shape of the hop flower is prominently and realistically represented, repeated in a

rhythmic pattern (Figure 18). The more abstract version used on the Wainwright Building forms the basis for a repeating design on the north façade of the tomb as well. Designed to house Wainwright's own remains along with those of his wife and mother, this monument, like the associated skyscraper, represents the source of its builder's wealth.

That Sullivan would look to plant taxonomy for ornamental inspiration in these commissions is very much in keeping with his evolving philosophy of ornament, which drew upon

Figure 17 Adler & Sullivan, Wainwright Building, St. Louis, 1891, terracotta *Cannabis* panel (photo by Eric J. Nordstrom).

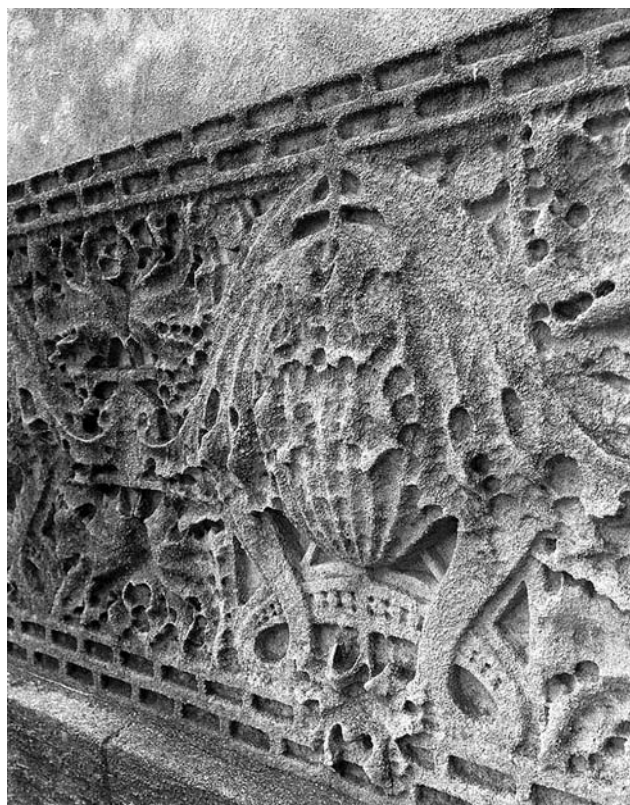


Figure 18 Louis Sullivan, Wainwright Tomb, Bellefontaine Cemetery, St. Louis, 1891 (photo courtesy of Chris Naffziger, St. Louis Patina).

German aesthetic discourse, the Beaux-Arts concept of *caractère*, and the writings of Charles Darwin. He advised aspiring architects to keep a copy of Asa Gray's *School and Field Book of Botany* (1880) on hand.⁵⁵ Sullivan's selection of these plants as the inspiration for his Wainwright designs was consistent with his evolving ideas about natural sources for ornament and his desire to express the functions of his buildings clearly. In the year of the Wainwright Building's completion, Sullivan stressed the role of ornament as a means of infusing meaning

and individuality into designs: "A certain kind of ornament should appear on a certain kind of structure, just as a certain kind of leaf must appear on a certain kind of tree."⁵⁶

Sullivan's choice of the Cannabaceae family as a source of decoration for the Wainwright Building was a particularly appropriate one. Hops are a prized ingredient in the brewing process. Beer is typically made mainly of barley, which is soaked, sprouted, and laid out to dry. This malted barley is then ground and cooked into a wort syrup. It is at this point that a small amount of ground hops is added. After yeast and water are added, the brew is left to ferment for a time; it is then transferred to kegs and aged in cool temperatures for a period of several months. In this process, the hops are the star ingredient. They give the beer its distinctive flavor and aroma while helping to preserve it for long-term storage and keeping it from going sour. Thus, hops are an essential ingredient, and one that distinguishes lager from ale. Their quality and judicious use is essential to a good-tasting beer, a point that Wainwright understood very well. In March 1890, just six months before Sullivan began work on his building, Wainwright traveled to Washington, D.C., as president of the National Brewers' Association to petition the House Ways and Means Committee not to increase the tariff on Saazer hops, which were imported from Bohemia. Congress was under pressure from farmers in California and Washington who wanted to foster a native hops industry.⁵⁷ Wainwright and other brewers in St. Louis were determined to use only the finest ingredients in their products, and this meant hops from Bohemia. The hops that Sullivan featured on the Wainwright Building's façade symbolized both the quality of St. Louis beer and Wainwright's leadership role in the brewing industry.⁵⁸

Hops in the Visual and Cultural Landscape

Sullivan's use of hops on the Wainwright Building's façade not only reflected the owner's personal and professional

history but was also in keeping with established traditions in the visual culture and ethnic pageantry of St. Louis's lager landscape. The place of barley and hops in the iconography of the brewing world was well established by the 1870s. Imagery incorporating the ingredients of beer was a regular feature in trade cards, logos, advertisements, and signs produced by breweries. In 1879 the E. Anheuser (predecessor to Anheuser-Busch) Company's advertisements began to represent these ingredients architecturally, with hop vines twining around freestanding columns topped by hop cones, and garlands of barley and hops as adornments framing factory scenes and scenes of gamboling putti drinking in a beer garden (Figure 19). The inclusion of brewing ingredients in graphic design and illustration was not limited to St. Louis beer companies. The cover of the sheet music for the "Pabst-March," composed in Milwaukee in 1890 in honor of the brewer, prominently featured hops and barley twining around vertical and horizontal elements framing a birds-eye view of the company's production facilities (Figure 20).

Such scenes of enjoyment and celebration framed by barley and hops were also produced in the distinctive costuming and stage designs of German American pageantry. As Kathleen Conzen has shown, German Americans cultivated a festive culture of ethnicity in the United States as a way of fostering identity and unity.⁵⁹ Beer was a central part of the stream of parades, picnics, concerts, and other celebrations sponsored by the numerous *Vereine*, or German American cultural societies, throughout the middle part of the nineteenth century. Beer flowed freely, and brewers took on a prominent role, sponsoring elaborate floats that featured tableaux of the legendary character Gambrinus surrounded by barrels of beer. During the 1880s, performances and displays

inspired by German traditions highlighted hops and barley as symbols of both German culture and the brewer's trade.

In the mid-1880s St. Louis hosted annual trade pageants that included parades through the downtown streets. Each trade group, represented in elaborate and didactic displays of marchers and floats, aimed to demonstrate its products and practices through imagery. In the 1883 parade, for instance, the Corticelli Silk Company's float, draped in bolts of fabric, was led by mounted horsemen who carried banners topped with spools, webs, and cocoons. In that same parade, the trade group representing the interests of the brewers and coopers had two floats: the first represented a field of barley, with harvesters at work, and the second featured young women dressed in Tyrolean costumes picking hops.⁶⁰ In February 1891, at about the same time that Sullivan delivered his designs for the Wainwright Building, the Germania Club, to which Ellis Wainwright belonged, put on a costumed "carnival ball," complete with an elaborate set of tableaux representing the four seasons, with alpine scenes, allegorical figures, harvesters, and hunters. The spring tableau featured a young woman posing as the allegorical figure of "Barley," with a skirt made of barley and a leather apron; she held a beer glass and a staff garlanded with hops.⁶¹

In 1890, when Sullivan was called in to design the exterior of the Wainwright Building, architects were beginning to integrate images of hops and barley, so prevalent in advertisements and theatricals, into a new architectural vocabulary that proudly proclaimed the sophistication and distinctive culture of German American brewers. For decades their buildings had displayed relatively plain brick façades with *Rundbogenstil* or classical detailing. As a new generation of brewers attained wealth and status, richer, more complex,



Figure 19 "E. Anheuser Co's Brewing Association, St. Louis Lager Beer," chromolithograph advertisement, 1879 (courtesy of the Missouri History Museum).

Figure 20 Cover of sheet music for the “Pabst-March,” by F. Hensler, 1890 (Milwaukee: Wm. Rolting & Sons, 1890; courtesy of University of Wisconsin–Madison).



more symbolically sophisticated Germanic revival vocabularies began to appear. In Milwaukee, Frederick Pabst's new mansion and skyscraper were Flemish Renaissance in style, with stepped gables and classical and baroque flourishes. The mansion featured an arcaded porch decorated with vertical panels of vegetal terracotta strapwork. Inside, the finial on the newel post of the grand central staircase was carved in the shape of a hop cone (Figure 21). The building's baroque revival side pavilion, originally designed by Otto Strack as a display space for the Columbian Exposition in Chicago, also featured ornamental hops curling around Corinthian columns, echoing motifs from the Pabst Brewing Company's advertising imagery (Figure 22).

Hops were also a frequent motif in brewery architecture in St. Louis. Jungenfeld used hops to adorn the façades of two breweries constructed in the same year as the Wainwright Building: the Columbia Brewery and the Anheuser-Busch Brew House. The Columbia Brewery, completed in 1892, featured a realistic depiction of hops and barley on the tympanum panel under the Romanesque entrance arch (Figure 23).

Jungenfeld used images of hops even more prominently on the façade of the massive new brew house for Anheuser-Busch, depicting an abstracted version of the hop plant on terracotta panels that punctuated the piers that gave vertical thrust to the design. Later Adolphus Busch would add to the central gallery of the brew house a hop chandelier that he purchased from the Belgian pavilion at the St. Louis World's Fair of 1904 (Figure 24).

Hops had broad cultural meaning in St. Louis, but by using images of hops in the Wainwright Building, Sullivan also conveyed a more specific critical argument that he, and perhaps Wainwright, wished to present about the changes to the brewing industry. The skyscraper was a product and a representation of the transformation of brewing from handwork to mechanization. As William Cronon has suggested with regard to the physical separation of manufacturing from management in Chicago, moving from the brewery to the office building “obscured the web of ecological and economic relationships” in which brewing was enmeshed.⁶² The land that produced the grains, the labor that was responsible for the



Figure 21 Ferry & Clas, Pabst Mansion, Milwaukee, 1891, central staircase newel post with hop cone finial (photo by Eric J. Nordstrom).



Figure 22 Ferry & Clas, Pabst Mansion, Milwaukee, 1891, side pavilion with hop vine columns (photo by Eric J. Nordstrom).



Figure 23 E. Jungenfeld & Company, Columbia Brewery, St. Louis, 1892, entrance tympanum (photo by Michael R. Allen).



Figure 24 Anheuser-Busch Brewhouse, St. Louis, ca. 1892, hop chandelier (author's photo).

alchemy of brewing, the steam, the condensation, the rich smell that permeated the air on the south side of the city—all of this was physically separated and set at a distance from the Wainwright Building, where brewing was administered by a syndicate working from clean, well-lit offices and linked to city building and allied industries and enterprises.

By 1890 brewing had become a nationalized, industrial process, far removed from the family traditions, seasonal brewing cycles, and local origins that characterized early beer making in the United States. Barley was shipped in to St. Louis by the train carload from the grain fields of the Great Plains, and the favored hops were imported from Saaz, Bohemia. The “shipping brewers” produced millions of barrels of beer annually and delivered them all around the country in refrigerated railcars, even in the height of summer. This displacement of nature from culture was a subject of great interest and concern to Sullivan. Following from the thinking of Ralph Waldo Emerson and Walt Whitman, he saw it as part of his role as architect to “avert an imbalance between material gains and spiritual growth”—to reconcile industry and nature.⁶³ As Lauren Weingarden suggests, “Sullivan’s ornamented skyscrapers connote the dialectical synthesis between technology and nature, science and metaphysics, city and country.”⁶⁴ According to Weingarden, Sullivan addressed a fundamental problem facing the architect of a skyscraper: “how to integrate material and technological progress with a national identity rooted in a pastoral ideal.”⁶⁵ In his use of hops in the ornament of the Wainwright Building, Sullivan celebrated the natural origins of the product, reconciling business and technology with nature and redeeming the materialistic basis of modern society.

The gap that Sullivan saw between the natural and mechanical worlds was one that was apparent to brewers of the day, and, like Sullivan, they sought to bridge it, albeit for less

disinterested reasons. At a time when beer making was being transformed from a family enterprise to a mechanized industry, when temperance advocates were inveighing against the immorality of beer consumption and others were questioning the quality of beer’s ingredients, brewers were keen to convey a continued connection to tradition, to the land, and to the farmers who produced the grain.⁶⁶ In the first years of the twentieth century, for instance, Anheuser-Busch developed a series of advertisements for its Budweiser brand that depicted these connections, emphasizing the company’s linkage to the land and its wholesome qualities. One 1908 ad represented a midwestern field under a great sky, with farmers dressed in traditional garb in the foreground, pointing to their crops and saying, “Anheuser-Busch will buy this barley.” Another group of ads, published in 1913, focused on the hop growers and hop gardens of Bohemia, depicting the festive atmosphere of handpicking and the camaraderie that attended the harvesting of the crops (Figure 25).

The sources and delivery of grain were of particular concern to Wainwright. As a grain inspector for the St. Louis Mercantile Exchange in the 1880s, he had been part of—indeed, had helped to preside over—an important shift in the way that barley, a key ingredient in beer, was grown and sold. Before the Civil War, grain was delivered in sacks to the levee in St. Louis, and the purchaser knew its origin. There were thus direct, evident connections linking the farmer, the manufacturer, and the product. With the introduction of the new technology of the grain elevator, barley became an anonymous

Figure 25 “The Hop-Growers” advertisement for Budweiser (*St. Louis Post-Dispatch*, 13 Aug. 1913).



graded commodity. The barrel of beer was increasingly abstracted from the forests that produced the barrels and the grains that gave body to the foamy brew.

Like Anheuser-Busch, Wainwright may have sought to provide an explanation, a cultural representation of this lost connection, to help mark the transition from the local, organic origins of his success to the increasingly distant and anonymous forces of production and financing he was instrumental in introducing. The Wainwright Building, modeled on the stock house, with hops seemingly growing on its walls, was more than a symbol of this change from the making of beer to high-stakes financial transactions and city-building enterprises; it quite literally framed and facilitated the transformation of the industry from a local to a national, even international, one. Without correspondence between Wainwright and Sullivan, it is difficult to ascertain whether the brewer shared Sullivan's concern about the cultural and civilizational consequences of this transformation. He did, however, sponsor a skyscraper that celebrated the natural heritage of beer in an age of industrial production, a canny move that helped him obscure one of the most troubling side effects of the industry's modernization: labor conflict.

By emphasizing the connection between brewing and nature in the façade of a downtown office building, or the role of the barley farmer or hop picker in an advertisement, the brewer symbolically removed mass production, the factory, and its operatives from the narrative of the industry. The implications of this erasure were challenged by striking brewery workers, who frequently traveled to the Wainwright Building to engage in contract negotiations with representatives of management in the offices of the SLBA. Working conditions for brewery employees in the Midwest could often be brutal, with ten-hour days standard and an additional four to five hours of overtime a day typical during busy periods, as well as work on Sunday mornings. There was no safety equipment, and men were often injured by machinery, which was becoming increasingly complex. Pay was minimal.⁶⁷ The Brewers' and Maltsters' Union, affiliated with the Knights of Labor, was organized in St. Louis in the early 1880s, and several strikes soon followed. In May 1886 striking workers met at the Central Turners' Hall and marched in a body to Schnaider's Beer Garden, just a few blocks from Wainwright's brewery, in support of their cause. Wainwright's employees, better paid and treated than most, were not members of the union, and his business suffered little from the disturbance. However, Wainwright provided scabs to other brewers during the strike, earning the enmity of the union. Brewery workers struck again in 1891, and while they boycotted local beer in the city's saloons, Sullivan was finishing plans for the Wainwright Building. Again, in 1893 brewery wagon drivers and stable men walked out, demanding better pay and working conditions. The conflict escalated as the Knights of Labor,

the local cigar makers' union, and other groups endorsed the strike, and the brewery drivers in East St. Louis, Illinois, across the Mississippi River from St. Louis, joined in.

By this time the offices of the SLBA were located in the Wainwright Building. The beer drivers huddled in their modest headquarters on the south side, proudly asserting that with the help of their comrades, "inside of a week you will see those gentlemen in the Wainwright Building look a little sick."⁶⁸ To them the Wainwright Building was more than a speculative office building, it was the symbolic center of the owners' interests. The presence of hops on the building's façade did not soothe their sense of injustice or remind them of the natural origins of the product they manufactured. Its volumetric and compositional similarity to the stock houses where they worked may well have been lost on them. Such visual and material gestures of connection were either not evident or not convincing to those who labored hard and long to churn out millions of barrels of beer each year using the latest means of mass production.

Conclusion

Using a vocabulary that linked the skyscraper to the factory and the farm, Sullivan created a design for the Wainwright Building that attempted to negotiate Ellis Wainwright's changing professional identity as well as his industry's changing place in the American economy and urban landscape. Like so much of the lager landscape that defined St. Louis, and indeed many of middle America's largest cities, the brewing heritage of the Wainwright Building has largely been erased from view. This is in part due to the later history of Wainwright's life. He left active work in the St. Louis Brewing Association in 1900, and soon thereafter a campaign for municipal reform led to his indictment on bribery and corruption charges in connection with his development of the city's street railways. He fled as a fugitive from justice to Paris and sold the Wainwright Building in 1905.⁶⁹ Despite his prominent role in St. Louis's history, Wainwright is now all but forgotten locally and remains largely absent from accounts of his building produced by architectural historians, who have until now preferred to write about a prophetic architect rather than a corrupt client.

Another factor in the loss of the building's brewing identity was the advent of Prohibition. Under its new owner, the Wainwright Building continued as the local headquarters of the SLBA until 1919, when the association disbanded. More adaptable than the breweries to the economic Armageddon of Prohibition, the Wainwright was used as a regular office building, and it housed the city's Real Estate Exchange on its first floor.⁷⁰ By the 1950s it had become the Missouri Insurance Building, and in 1973 it was threatened with demolition. The state of Missouri saved it by transforming it into a state

office building in 1981. Today there is little indication of its role as a central part of the city's larger landscape.

Recovery of the Wainwright Building's place in the larger landscape is important not only because it sheds new light on an icon of modernism or because of beer making's significance in the modern urban landscape. Traditionally, Chicago has been understood as the most fertile ground for the new building type that was the skyscraper, but the history of brewing suggests that some of the earliest and most innovative work on the skyscraper took place in Milwaukee and St. Louis. Situating a high-design skyscraper within a larger network and system of buildings and people complicates the meaning and agency of architecture in the shaping of American industrial modernity.

Paula Lupkin is a historian of design, architecture, and cities. Her research and publications, including *Manhood Factories: YMCA Architecture and the Making of Modern Urban Culture* (University of Minnesota Press, 2010) and *Shaping the American Interior: Structures, Contexts, and Practices* (Routledge, 2018), focus on the spatial production of modernity under capitalism.

Notes

1. My thanks to Mary Reid Brunstrom, Joseph Siry, Lauren Weingarden, Michael Allen, Kate Holliday, Margaret Garb, Anna Andrejewski, Caitlin Boyle, and Tiffany Tuley Grassmuck for their help in developing this article.
2. Louis Sullivan to Claude Bragdon, 8 Nov. 1903, in Claude Bragdon, *More Lives Than One* (New York: Alfred A. Knopf, 1938), 157–58.
3. Hugh Morrison, *Louis Sullivan, Prophet of Modern Architecture* (New York: W. W. Norton, 1935), 144–45; Sigfried Giedion, *Space, Time, and Architecture: The Growth of a New Tradition* (Cambridge, Mass.: Harvard University Press, 1963), 388–89; Carl Condit, *The Chicago School of Architecture: A Historical of Commercial and Public Building in the Chicago Area, 1875–1925* (Chicago: University of Chicago Press, 1964), 128; William J. R. Curtis, *Modern Architecture since 1900* (Oxford: Phaidon, 1992), 38–39; Lauren S. Weingarden, *Louis H. Sullivan and a 19th-Century Poetics of Naturalized Architecture* (London: Ashgate, 2009), 266–72; Dell Upton, *Architecture in the United States* (New York: Oxford University Press, 1998), 212–16.
4. Donald Hoffmann has questioned Sullivan's account of the rapid pace of the design process, noting Dankmar Adler's later assertion that the Wainwright's design was time-consuming and amounted to one man's labor for eight months. Donald Hoffmann, *Frank Lloyd Wright, Louis Sullivan, and the Skyscraper* (Mineola, N.Y.: Dover, 1998), 24. In recent years, such accounts of the history of the skyscraper and the Chicago School have been challenged, and the history rewritten. See Daniel Bluestone, *Constructing Chicago* (New Haven, Conn.: Yale University Press, 1991), 105; Carol Willis, *Form Follows Finance: Skyscrapers and Skylines in New York and Chicago* (New York: Princeton Architectural Press, 1995); Katherine Solomonson, *The Chicago Tribune Tower Competition: Skyscraper Design and Cultural Change in the 1920s* (Chicago: University of Chicago Press, 2001); Roberta Moudry, ed., *The American Skyscraper: Cultural Histories* (Cambridge: Cambridge University Press, 2005); Gail Fenske, *The Skyscraper and the City: The Woolworth Building and the Making of Modern New York* (Chicago: University of Chicago Press, 2008); Joanna Merwood-Salisbury, *Chicago 1890: The Skyscraper and the Modern City* (Chicago: University of Chicago Press, 2009). Cultural histories of this new building type have established it as the nexus for historical inquiry into the development of gender roles, the structure of modern business, the development of urban culture, and

the evolution of the architectural and engineering professions. Joseph Siry has given fuller consideration to Adler & Sullivan's oeuvre, focusing on the Auditorium Building, the Carson, Pirie, Scott and Company Building, and the Guaranty Building, paying special attention to their clients and their functions in urban contexts. Despite these developments, the iconic status and interpretation of the Wainwright Building remain largely untouched by revision. See Joseph Siry, *Carson Pirie Scott: Louis Sullivan and the Chicago Department Store* (Chicago: University of Chicago Press, 1988); Joseph Siry, "Adler and Sullivan's Guaranty Building in Buffalo," *JSAH* 55, no. 1 (Mar. 1996), 6–37; Joseph M. Siry, *The Chicago Auditorium Building: Adler and Sullivan's Architecture and the City* (Chicago: University of Chicago Press, 2002).

5. An excellent source on the history of brewing in St. Louis is Henry Herbst, Don Roussin, and Kevin Kious, *St. Louis Brews: 200 Years of Brewing in St. Louis, 1809–2009* (St. Louis: Reedy Press, 2009).

6. On the split of business into factory and front-office skyscraper, see Bluestone, *Constructing Chicago*, 123–28.

7. A patronage study of the Wainwright Building has not yet appeared, despite the fact that Ellis Wainwright commissioned several projects from Sullivan. The reason for this omission is probably that Wainwright has remained a relatively obscure figure whom St. Louisans do not care to remember. Although he was a powerful, charismatic, and wealthy figure in the city and an important national leader in the brewing industry when he commissioned Sullivan to build his skyscraper, less than ten years later he was a fugitive from justice, convicted of bribery in a scandal over the awarding of an urban railway contract. He fled to Paris, where he lived out the next ten years in comfort and luxury, and he sold the Wainwright Building. "Warrant for E. Wainwright," *New York Times*, 30 Jan. 1902; William F. Woo, "Story behind the Wainwright Building," *St. Louis Post-Dispatch*, 23 Jan. 1966, Wainwright Building, Vertical Files, Missouri History Museum; Don Crinklaw, "The Death of a Beer Dynast: The Tragic Last Year of Ellis Wainwright," Wainwright Building, Vertical Files, Missouri History Museum.

8. "Who Is It That Runs the St. Louis Saloons?," *St. Louis Post-Dispatch*, 27 Jan. 1895, 15; Perry Duis, *The Saloon: Public Drinking in Chicago and Boston, 1880–1920* (Urbana: University of Illinois Press, 1983), 40–45; Thomas Cochran, *The Pabst Brewing Company: The History of An American Business* (New York: New York University Press, 1948), 143–46.

9. Cochran, *The Pabst Brewing Company*, 143–46, 196–97, 255–60.

10. During the 1920s, part of the Independent Brewing Company of St. Louis was spun off into the Independent Realty Company, which managed the realty properties, including the former saloon properties, of the ex-brewers. Herbst et al., *St. Louis Brews*, 71.

11. John D. Randall, *The Art of Office Buildings: Sullivan's Wainwright and the St. Louis Real Estate Boom* (Springfield, Ill.: John D. Randall, 1972), 23.

12. Lawrence Lowic, *The Architectural Heritage of St. Louis: From the Louisiana Purchase to the Wainwright Building* (St. Louis: Washington University Gallery of Art, 1982), 145.

13. Notice of the sale was printed in the *St. Louis Republic*. Cited in Hoffmann, *Frank Lloyd Wright, Louis Sullivan*, 21.

14. The *St. Louis Republic* reported plans for an eight-story building on 1 June 1890. Cited in *ibid.*

15. Herbst et al., *St. Louis Brews*, 195–96.

16. The drawing of the design by Ramsey, first published in the *St. Louis Globe-Democrat* on 7 November 1890, is reproduced in Hoffmann, *Frank Lloyd Wright, Louis Sullivan*, 22.

17. Wainwright intended to retain Ramsey's original plans for the interior. Another reason he may have hired Adler & Sullivan was that Dankmar Adler had close personal connections to the midwestern German American business community. He was experienced in designing music halls, including the Chicago Opera Festival Auditorium in 1886 and the Auditorium Building in Chicago in 1889. Brewers in St. Louis were likely to know of the firm through

- those connections. See Charles E. Gregersen, *Dankmar Adler: His Theatres and Auditoriums* (Athens, Ohio: Swallow Press, 1990); Emily Ann Thompson, *The Soundscape of Modernity: Architectural Acoustics and the Culture of Listening in America, 1900–1933* (Cambridge, Mass.: MIT Press, 2002), 32.
18. Maureen Ogle, *Ambitious Brew: The Story of American Beer* (Orlando: Harcourt Books, 2006), 86–126.
 19. *Ibid.*, 102–6.
 20. *Ibid.*, 106.
 21. Cochran, *The Pabst Brewing Company*, 70–71, 80–83.
 22. “Captain Pabst’s New Building,” *Milwaukee Daily Journal*, 1 July 1889, 1.
 23. “A New Mammoth Building,” *Milwaukee Journal*, 28 Feb. 1891, 1.
 24. “The New Pabst Block,” *Milwaukee Sentinel*, 1 Mar. 1891, 1.
 25. “Accepted Design: Competition for Office Building for Fred Pabst, Milwaukee, Wisconsin,” *Inland Architect* 17, no. 2 (Mar. 1891), 28; “Pabst Office Building, Milwaukee, Wisc.,” *Architectural Record* 1, no. 4 (Apr.–June 1892), 472.
 26. “Plans for the Pabst Block,” *Milwaukee Sentinel*, 7 Feb. 1891, 3.
 27. “Young Men at the Helm,” *St. Louis Post-Dispatch*, 1 Apr. 1888, 22.
 28. “Belligerent Brewers,” *St. Louis Post-Dispatch*, 6 June 1879, 2. Early on, Wainwright got into a fistfight with the editor of a prohibitionist newspaper who infiltrated a brewers’ meeting in St. Louis. He was later charged with assault, convicted, and fined five dollars by a sympathetic judge.
 29. “A Brewers Pool,” *St. Louis Post-Dispatch*, 15 Aug. 1881, 4.
 30. “The Dead-Beat Saloons,” *St. Louis Post-Dispatch*, 18 June 1889, 6.
 31. Beginning in 1890 and until he left the country to live in France in 1902, Wainwright engaged in significant real estate transactions around St. Louis, actively participating in the development of downtown, industrial sites, the elite residential Central West End, and portions of the north side.
 32. “Big Financial Enterprise,” *St. Louis Post-Dispatch*, 7 Sept. 1890.
 33. When the brewers created their first “pool,” they rented a suite of offices in the Granite Building, but that was not the primary place of business for any of the brewer members. By contrast, Wainwright now went downtown from his fashionable home, rather than to the brewery.
 34. Deryck W. Holdsworth, “Geography: Buildings as Settings for Seeing Systems and Networks,” *JSAH* 65, no. 1 (Mar. 2006), 18–20.
 35. On the connection between Wainwright and local city-building enterprises, see Siry, “Adler and Sullivan’s Guaranty Building.”
 36. “Real Estate News,” *St. Louis Post-Dispatch*, 19 Mar. 1893, 24. Despite the fact that meetings were held to discuss this idea in the office of Wainwright’s own rental agent, the plan does not seem to have been realized until 1911, after Wainwright sold the building. “Real Estate Men Open New Home for the Exchange,” *St. Louis Post-Dispatch*, 4 Dec. 1911, 9.
 37. *Gould’s St. Louis Directory for 1893* (St. Louis: Gould Directory Company, 1893).
 38. *Ibid.*
 39. “The Wainwright,” *St. Louis Post-Dispatch*, 16 Jan. 1893, 8.
 40. *Gould’s St. Louis Directory for 1893*.
 41. Louis H. Sullivan, “Ornament in Architecture,” *Engineering Magazine* 3, no. 5 (Aug. 1892), 641.
 42. Susan Kay Bigley Appel, “The Midwestern Brewery before Prohibition: The Development of an American Industrial Building Type” (PhD diss., University of Illinois, 1990), 189–222.
 43. Lauren Weingarten, *Louis H. Sullivan: The Banks* (Cambridge, Mass.: MIT Press, 1987), 67.
 44. Louis H. Sullivan, *The Autobiography of an Idea* (New York: American Institute of Architects, 1924).
 45. Weingarten, *Louis H. Sullivan*, 261–67.
 46. Michael Osman, *Modernism’s Visible Hand: Architecture and Regulation in America* (Minneapolis: University of Minnesota Press, 2018), 60.
 47. Morrison, *Louis Sullivan*, 98; Richard Nickel and Aaron Siskind, *The Complete Architecture of Adler & Sullivan* (Chicago: Richard Nickel Committee/University of Chicago Press, 2010), 374.
 48. Sullivan to Bragdon, 8 Nov. 1903, 157–58.
 49. Older authorities included these two species in the Moraceae or mulberry family. They have been reclassified more recently into the Cannabaceae. Zhou Zhekun and Bruce Bartholemew, “Cannabaceae,” *Flora of China* 5 (2003), 74–75.
 50. Asa Gray, *Gray’s School and Field Book of Botany*, rev. ed. (New York: American Book Company, 1887), 37, 170–71.
 51. Hoffmann, *Frank Lloyd Wright, Louis Sullivan*, 33.
 52. *Ibid.*, 3.
 53. Sullivan’s *Cannabis* has nine leaves, although the actual plant has seven. It is not clear why he would have altered the number of leaves. His vegetal designs were never precise, but it is clear, in the context of the entire decorative Cannabaceae-related program, that these panels represent *Cannabis*.
 54. Woo, “Story behind the Wainwright Building.”
 55. A list of the botanical books that Sullivan kept in the library of his home in Ocean Springs, Mississippi, catalogued in 1959, can be found in the Library of Congress’s *American Institute of Architects and American Architectural Foundation Collection*, ca. 1600–ca. 2007, bulk 1860–2007.
 56. Sullivan, “Ornament in Architecture,” 641.
 57. “The National Capital,” *St. Louis Post-Dispatch*, 17 Mar. 1890, 1.
 58. Wainwright’s personal identification with the ingredients involved in brewing beer was stronger than that of most brewers. St. Louis was one of the nation’s primary grain markets, second only to Chicago, and Wainwright assumed an important practical and symbolic responsibility in his oversight of that market.
 59. Kathleen Niels Conzen, “Ethnicity as Festive Culture: Nineteenth-Century German America on Parade,” in *The Invention of Ethnicity*, ed. Werner Sollors (Cambridge: Oxford University Press, 1991), 44–76.
 60. “A Splendid Show,” *St. Louis Post-Dispatch*, 6 Oct. 1883, 8.
 61. “The Moon’s Fable,” *St. Louis Post-Dispatch*, 8 Feb. 1891, 23.
 62. William Cronon, *Nature’s Metropolis: Chicago and the Great West* (New York: W. W. Norton, 1991), 263.
 63. Weingarten, *Louis H. Sullivan and a 19th-Century Poetics*, 22.
 64. *Ibid.*, 236.
 65. *Ibid.*, 241.
 66. On temperance advocates’ critiques of the purity of beer, see Ogle, *Ambitious Brew*, 141.
 67. Alfred Kolb, “Working Conditions in a Bicycle Factory and in a Brewery,” in *Als Arbeiter in Amerika: Unter deutsch-amerikanischen Grosstadt-Proletarian*, 5th rev. ed. (Berlin, 1909), reprinted in *German Workers in Chicago: A Documentary History of Working-Class Culture from 1850 to World War I*, ed. Harmut Keil and John B. Jentz (Urbana: University of Illinois Press, 1988), 94–97.
 68. Quoted in “Are Importing Beer,” *St. Louis Post-Dispatch*, 25 Oct. 1893.
 69. “\$900,000 Price of Wainwright Bldg.,” *St. Louis Post-Dispatch*, 26 Feb. 1905, A3.
 70. “Real Estate Men Open New Home.”