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# Simply American: Simplicity in Architectural Arrangement, Construction, and Standards, 1820-1920

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# Simply American: Simplicity in Architectural Arrangement, Construction, and Standards, 1820-1920

## **Abstract**

The term “simplicity” frequently appeared in American architectural discourse from the nineteenth to early twentieth century. Ironically, this was a historical period associated with the Gilded Age, and an architectural period known for historicism and superfluous ornament. At least, that is how architects and critics from the mid-twentieth century characterized the lack of simplicity in nineteenth century architecture. Their interpretation of simplicity as rejecting nonfunctional ornament and historicist association overlooked the various early modern architectural implications explored throughout nineteenth century architecture. Instead, I explain how and why designers from the nineteenth century desired and approximated simplicity in their work in terms of historical precedents and antecedents, dissemination of designs and ideas through publication, and what I call “quietness” – that a building serves as the background for activities rather than as an object of attention. This dissertation interprets prescriptive literature and also studies construction drawings and extant buildings. There was no single definition of simplicity, even our current assumptions have nuances, but I show projects ranging from Quaker meetinghouses to Chicago skyscrapers with deeper symbolism and significance than a mere plain aesthetic.

American architects in this dissertation generally understood simplicity as relations between architecture and people with architecture serving as a background for human activities within and around the building. The chapter on economy considers the planning of a building where arranged rooms with clear functions allowed the building to grow with additions. The chapter on construction considers simplicity through the critique of false construction pretending to follow the ancient construction techniques respecting building materials. The chapter on simple cladding traces the appearance of the building’s exterior from solid walls to a covering representing the character of the building that was independent of the structure. The interiors chapter returns to themes similar to economy by studying the decorations and décor suited to the room’s activities. Finally, simplicity was a high standard unifying purpose and appearance, thus becoming a standard in which designers used to measure their ability to approximate the idea of being simple defended through history, publication, and a sense of modesty.

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David Leatherbarrow

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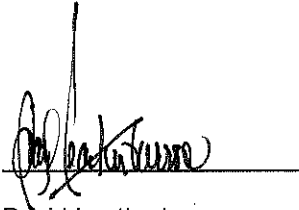
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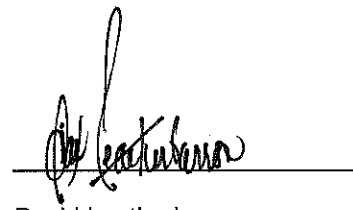
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SIMPLY AMERICAN: SIMPLICITY IN ARCHITECTURAL ARRANGEMENT, CONSTRUCTION,  
AND STANDARDS, 1820-1920  
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To my parents, Fred & Mary, for their unwavering support in all my ventures, especially for the following pages.

When I wrote the following pages, or rather the bulk of them, I lived alone, near the Blue Ridge Mountains, about two miles from Monticello, at the base of Carter's Mountain, in Charlottesville, Virginia, and earned my living by practicing architecture only. I lived there ten months. At present I am a sojourner in civilized life again.

## ACKNOWLEDGMENTS

Writing a dissertation is a lonely task, especially when one is a loner by nature, but completing a dissertation requires occasional breaks from solitude. The first group to thank is my committee for the time to review the dissertation, contribute their insightful knowledge and criticism to improve it, and found it acceptable to defend. Aaron Wunsch kept me focused on making clear distinctions on simplicity when my primary sources tended to be loose with the term and helped structure the introduction. Michael Lewis gave very precise reminders of material I should not gloss over and pointed out some of the grossly unparalleled paragraphs. I am especially thankful to David Leatherbarrow, who read through the entire document throughout its various phases, guided me in giving shaper focus for the chapters, and patiently anticipated an improvement with each revision.

I would not have the variety of primary sources had it not been for the archivists from across the country who helped me. In the northeast, Bruce Laverty at the Philadelphia Athenaeum provided Quaker Meetinghouse and William Price drawings and Jason Escalante at the Avery Archives at Columbia University laid out the construction drawings of Craftsman houses. Christine Avery at the Northwest Architectural Archives at the University of Minnesota, Minneapolis quickly responded for access to the construction drawings and unpublished manuscripts of William Price and Louis Claude. The Stickley Museum in Fayetteville, New York allowed me to photograph their pieces in detail. The Wisconsin State Historical Society has a vast collection of government circulars on rural schoolhouse designs. The Ryerson and Burnham Library at the Chicago Art Institute had *Inland Architect* as well as William LeBaron Jenney's book and drawings.

There were a number of individuals I conversed with over the years who indirectly contributed by raising questions and possibilities to explore. Lloyd Natoff, a descendent of Frank Lloyd Wright and furniture craftsman, introduced me to a number of American furniture

companies from the nineteenth to early twentieth century. Neil Levine suggested including Stanford White into the discussion of American simplicity; although I did not go down that road it made me realize I should not limit my discussion entirely around Arts & Crafts designers. Jeff Cohen introduced me to documents that provide historical evidence to buildings without known architects or builders. Bruce Williams allowed me to photograph the Whittier Friend's Meetinghouse in Iowa.

The major breakthrough in my dissertation structure would not have happened had I not gone returned to practice. I am grateful to John Matthews and the staff at Mitchell/Matthews Architects in Charlottesville for the opportunity to refresh my practical knowledge. Practical experience led me to structure the dissertation around the building and design process, a different approach than often seen in dissertations and one that helped nurture my research interests and writing. I should also thank Shenandoah Joe's on Ivy Road for the nightly table rental after work.

Although I wrote very little on Frank Lloyd Wright, my experiences teaching at Taliesin, Wisconsin for two summer sessions fostered the desire to focus on rural architecture in the United States. I am grateful to the faculty and staff at the Frank Lloyd Wright School of Architecture for giving me the opportunity to live in Taliesin and teach my first design studio under the enormous trusses of the Hillside Drafting Room. After passing from research gathering to revising, Michael Berk, director of the School of Architecture at Mississippi State University, was kind enough to lighten my teaching load for my first semester, which I took full advantage of to revise the entire dissertation for the second time and push it towards a defense in the following spring.

Looking back my dissertation involved many people, from my parents to strangers half-way across the country. It made me learn more about the places a lived from Philadelphia to Wisconsin. While the writing was frustrating my memories will fondly recall the adventures in finding material from some of the most famous, familiar, and obscure places.



## ABSTRACT

SIMPLY AMERICAN:

SIMPLICITY IN ARCHITECTURAL ARRANGEMENT, CONSTRUCTION, AND STANDARDS,

1820-1920

Frederick W. Esenwein

David Leatherbarrow

The term “simplicity” frequently appeared in American architectural discourse from the nineteenth to early twentieth century. Ironically, this was a historical period associated with the Gilded Age, and an architectural period known for historicism and superfluous ornament. At least, that is how architects and critics from the mid-twentieth century characterized the lack of simplicity in nineteenth century architecture. Their interpretation of simplicity as rejecting non-functional ornament and historicist association overlooked the various early modern architectural implications explored throughout nineteenth century architecture. Instead, I explain how and why designers from the nineteenth century desired and approximated simplicity in their work in terms of historical precedents and antecedents, dissemination of designs and ideas through publication, and what I call “quietness” – that a building serves as the background for activities rather than as an object of attention. This dissertation interprets prescriptive literature and also studies construction drawings and extant buildings. There was no single definition of simplicity, even our current assumptions have nuances, but I show projects ranging from Quaker meetinghouses to Chicago skyscrapers with deeper symbolism and significance than a mere plain aesthetic.

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## CHAPTER 1: INTRODUCTION

“The intellectual trend of the hour is toward simplification.”<sup>1</sup> – Louis Sullivan (1906)

When faced with a design decision for a third building for the same client regarding details ranging from flashing to interior moldings, my employer would say, “Let’s keep it simple and do just like what we did on the other two buildings.” If you asked either myself or others in the office we would tell you it was not that simple because it usually required a lot of thought and time to rework the detail rather than paste an existing detail from another drawing with a quick change to some notes. The objective question therefore asks: “was this actually simple?” My employer’s direction was to use two previous buildings for the same client as the standard for construction and arrangement for the third building. The repetitive design was what made the design simple, though not necessarily the building’s construction.

Often our interpretation of simplicity is synonymous with “conventional” or “easy.” Many architecture offices use building details as interchangeable parts. My employer, for instance, believed it was easy and efficient to reuse previously designed details from past office projects for a new project with slight modifications. This saved time and consequently money. Reducing the number of parts was also critical;

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<sup>1</sup> Louis H. Sullivan, "What is Architecture: A Study in the American People of Today," in *Kindergarten Chats and Other Writings*, 227-241 (New York: Dover, 1979). 227.

by reducing the number of detail drawings, the office also saved time and money. This made the part, or detail, economical in terms of financial savings and eliminated unnecessary details. Many American architecture offices share this same business acumen.

Production and cost incentives are one way to define simplicity in American architecture, but they do not address the cultural depth associated with American simplicity ranging from domestic moral and historical interpretations to European observations. In Philadelphia for instance, Quakers practiced plain living governed religiously by faith rather than capital gain, although there were certainly wealthy Quakers. When Philadelphia architect William L. Price wrote about simplicity of construction, it was not to sell his architecture, but to defend the expression of construction as exemplified by the ancient Greeks, even though his buildings required more complex assemblies than Greek temples. When Adolf Loos wrote about his experiences in America, it was not about the factories surrounding Philadelphia but about visiting the farm of his relatives outside of the city, although he still observed the complex relationship between city and rural life in America.<sup>2</sup> In all three cases there are contradictions – plain but wealthy Quakers, ancient and modern construction, rural and city life - but these contradictions made complex relations in American society and building. Furthermore, the basis of these complex

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<sup>2</sup> On Quakers, see pages 74-79,175-179. On William L. Price, see pages 107-114. Loos described his relatives' farm in *Das Andere*, see Adolf Loos, *Gesammelte Schriften* (Vienna: Lesethek, 2010). 270-272.

relations came from faith and tradition. The search for simplicity in architecture was the search for plain living, antecedents, and rural traditions. American simplicity considered the complex relations with respect to antecedents and humble origins.

The word “simple” comes from Latin *simplus*, meaning “to fold into one,” but when the English literary scholar C. S. Lewis etymologically traced the definition he rejected the Latin origin for the modern use of the word.<sup>3</sup> Instead, Lewis turned to medieval medicine and found that “simple” could mean a part of something complex. A medicine or potion was a complex formula but it could be reduced to its herbal ingredients, called “simples.” This could also be true for cooking, such as a simple stew having a number of ingredients but was hardly as simple as a steak in terms of irreducibility. What made the stew simple instead was that it had humble origins and had a sentimental value referring to home.<sup>4</sup> These simples, the common root vegetables in the stew, blend together for a flavorful taste and a nutritious meal originating from what was available to cook. What does this mean for architecture?

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<sup>3</sup> "simple, adj. and n." OED Online. March 2014. Oxford University Press. <http://www.oed.com/view/Entry/179955> (accessed April 21, 2014). “Latin *simplus* (in classical Latin only in neuter *simplum*) is cognate with Greek ἀπλόος , ἀπλοῦς , the first element in both being \*sem- ‘one’. In *simplex* the second element is related to Latin *plicāre*, Greek πλέκειν ‘to fold’: compare.” In the dictionary some of the definitions are: “Free from duplicity, dissimulation, or guile; innocent and harmless; undesigning, honest, open, straightforward; free from, devoid of, pride, ostentation, or display; humble, unpretentious...”

<sup>4</sup> C. S. Lewis, *Studies in Words* (Cambridge: Cambridge University Press, 2013). 165-180. Given this broad variety of uses for the term, Lewis believed the word lost precise meaning and described it as “semantic sediment” because it was a generalization of appeal. He concluded that simplicity was a word used nearly to the extent of becoming meaningless, but humility was the best consistent synonym regardless of the usage.

It suggests that simple architecture takes what is familiar and applies it to buildings with increasing demands without losing sight of the fundamental purpose of building to provide comfortable spaces, perhaps even a sentimental value of home.

The desire for simple architecture repeatedly appeared in the discourse of and on Modern architecture. In his book *Words and Buildings* Adrian Forty introduced the word “simple” as “one of the most overworked words in the architectural vocabulary.” He formulated six definitions starting with Laugier’s primitive hut in the eighteenth century leading towards Muthesius’ formulation of *sachlich* in the *Deutsche Werkbund* and concluded with Mies van der Rohe’s elemental architecture. The general development of simplicity in architecture began with the rejection of rococo architectural ornament towards methodological planning that leads into efficient design using mass-produced parts for building assemblies.<sup>5</sup> His definitions, however, tend to be more about the discourse than built examples.

Vittorio Gregotti also recognized the difficulty in making simplicity a design imperative when stating that: “Architecture is not simple; it can only become simple.” Gregotti came to two separate but interdependent conclusions on simple

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<sup>5</sup> Adrian Forty, *Words and Buildings: A Vocabulary of Modern Architecture* (London: Thames & Hudson, 2000). 249-255. Forty listed six definitions for the word simple as used in architecture: 1) the rejection of rococo ornament in the 18<sup>th</sup> century, 2) maximized effect of a work on the senses [it is unclear to me what he meant by this], 3) economy of means [which implied proper distribution of spaces and building forms as exemplified by J.N.L. Durand], 4) as a stage in the history of art and architecture [meaning the fulfillment of a work from primitive origins before it succumbs to decadence], 5) the simple life as “matter-of-factness,” [Muthesius’ use of *sachlich*], 6) rationalized production [Fordism].

architecture: 1) that it achieves a balance where nothing can be added or taken away, even if the parts are in opposition to each other in the particular but unify and strengthen the whole; and 2) that simplicity “represents an aspiration to find one’s place near the origin of architecture itself...”<sup>6</sup> In other words, a simple building, in theory, represents an original purpose for architecture that in practice is a reformulation of a conventional building in its construction and arrangement. The meaning of simple was not overworked as Forty claimed, but ambiguous as Gregotti intuited.

Discussing simplicity in architecture from the nineteenth to early twentieth centuries may sound like an oxymoron. Mid-twentieth century architectural historians following Henry-Russell Hitchcock and Sigfried Giedion characterized architecture from the period as having profuse ornament, being historically pretentious, and ironically tasteless during a time when taste was an obsession.<sup>7</sup> Carl Condit, an admirer of Giedion, claimed that “the ultimate artistic failure of architecture in the nineteenth century...was the failure to provide, in its own vocabulary, an aesthetic discipline that would combine the expression of science,

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<sup>6</sup> Vitorrio Gregotti, "On Simplicity," in *Inside Architecture*, trans. Peter Wong and Francesca Zaccheo, 83-87 (Cambridge, MA: MIT Press, 1996). “a simple building cannot avoid referring to some attempt at refoundation, a refoundation of sense and representation that is constructed as a reorganization of the system of functions, a radical rethinking of the reasons behind the organism and its public and contextual role.” 86. Quotations in text: 84 & 87.

<sup>7</sup> Henry-Russell Hitchcock, *Modern Architecture, Romanticism and Reintegration* (New York: Payson & Clarke Ltd., 1929); Sigfried Giedion, *Space, Time, and Architecture* (Cambridge, MA: Harvard University Press, 1941). 258-348.

technology, mechanized industry, and modern urban life with the deeper-lying emotional needs of the human spirit.”<sup>8</sup> Simplicity for the mid-twentieth century historians can be best summarized by Sullivan’s rejection of the historical tradition vis a vis historicist styles: “But to simplify the mind is, in fact, not easy... You are surrounded by a mist of tradition which you, alone, must dispel...”<sup>9</sup> A large part of the tradition Sullivan rejected, which Giedion and Hitchcock praised him for doing, was the use of historicism in architectural styles.

Complementing the formal and stylistic interpretations of architecture, recent scholarship in architecture history touching on simplicity is primarily concerned with signifying social identity in architecture and ornament. Historians today reaffirm the paradox in advocating simplicity in architecture and design during social turmoil between reformers and social classes. Lewis Mumford, for instance, called the late nineteenth century the “brown decades” because the brownstones covered in soot signified failure in American morals. This tragic view of American society during the period was encapsulated in Mumford’s critique: “[T]he Brown Decades were created by brown spectacles that every sensitive mind wore, the sign of renounced ambitions, defeated hopes... The mood was sometimes less than tragic, but at the

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<sup>8</sup> Carl W. Condit, *The Chicago School of Architecture: A History of Commercial and Public Building in the Chicago Area, 1875-1925* (Chicago: University of Chicago Press, 1964).2.

<sup>9</sup> Sullivan. 232.

bottom, it was not happy.”<sup>10</sup> Social discontent led T. J. Jackson Lears to define the simple life in the late nineteenth century as “a means of revitalizing the modern morality of self-control during a period of social and psychic stress.”<sup>11</sup> Anthony Light argued that simplicity was propaganda to keep the middle class from aspiring to greater social status. In terms of architecture, Light concluded that domestic pattern book literature called for “simplicity in the home to both more accurately reflect the social reality of stratified wealth and to curb the striving for the signs of wealth that they understood disposed the middle classes to a discontent that threatened to keep classes at odds with each other.”<sup>12</sup> Slightly more optimistic in tone was Gwendolyn Wright, who found simplicity as a common ground for debate between reformers and architects. “The widespread interest in simple, functional environments could be interpreted as a social statement...Social reformers developed an argument for greater standardization and economy in house-building. Architects learned from these people outside their profession who spoke with such vehemence on matters of residential design.”<sup>13</sup> Scholarship touching on simplicity shifted from repression by

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<sup>10</sup> Lewis Mumford, *The Brown Decades; a Study of the Arts in America*, 3rd Edition (New York: Dover, 1971). 3.

<sup>11</sup> T. J. Jackson Lears, *No Place of Grace: Antimodernism and the Transformation of American Culture, 1880-1920* (Chicago: University of Chicago Press, 1994). 77.

<sup>12</sup> Anthony Francis Light, *Keeping Their Places: Emulation, Simplicity, and Class Distinction in the Domestic Imagination 1877-1925* (New Haven, CT: Dissertation at Yale University, 2009). 43-71. Quotation from 333.

<sup>13</sup> Gwendolyn Wright, *Moralism and the Model Home : Domestic Architecture and Cultural Conflict in Chicago, 1873-1913* (Chicago: University of Chicago Press, 1980). 131. 129-132 discusses mail-order houses and furnishings. 136-141 discusses reform in *The Ladies Home Journal* and

styles to repression by some agent outside the architectural profession determined to define social aspirations.

There are historians who recognized more positive inspirations for designers striving for simplicity. David Handlin concluded in *The American House* that the social intentions architects had for the American house were “forces that were then set in motion have continued to shape the way Americans live, and thus, although it has had to adjust to many new circumstances, the home has survived, as have the essential attributes of the architecture that by the First World War had come to be associated with it.”<sup>14</sup> Agreeing with Handlin, I found American architects to be equally interested in promoting simplicity as a positive approach towards design just as Forty and Gregotti discovered in the later twentieth century. The architects studied below did not see the social and architectural situation as paradoxical but confused, and the rationale to sort the complexity required thinking in simples.

Throughout the nineteenth century and the beginning of the twentieth, numerous American philosophers, reformers, and architects sought simplicity for American life. The Quakers identified simplicity with plain living as a rejection of outward display of inequality; in architecture this could be the outward resemblance between a meetinghouse and townhouse. Andrew Jackson Downing identified

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*The Craftsman* but only in general terms on Wright and the kinds of articles Stickley produced and how blocky his houses looked.

<sup>14</sup> David P. Handlin, *The American Home: Architecture and Society, 1815-1915* (Boston: Little, Brown, 1979). 488.



simplicity with the hierarchy of house types reflecting one's status and architectural styles to one's character. Gustav Stickley described his house and furniture designs as simple as a means to uphold the tranquility of the domestic interior. Frank Lloyd Wright wrote that simplicity was not about being plain, but about clarity in the relationship between elemental parts of the building to the overall composition. One does not eliminate the parts of a building any more than embellish them because if the elements are expressive of the architect's conception then the elements are as vital to the building as the leaves are vital to the plant. These figures will appear in the following pages with greater detail in the approximation between their simple architecture and simplicity ideals. However, there was no single all-encompassing definition for simple architecture.

To introduce the historical context of the American simplicity between 1820 and 1920, I divided common interpretations into three separate periods: 1820-1860, 1870-1900, and 1900-1920. The logic of the breakdown essentially looks at the nineteenth century up to the Civil War through domestic reformers and select religious communities, then follows the postwar years as building technologies and programs developed more complexity, and the last period covers the height of the American Arts & Crafts Movement and its defenders. Even within these three periods, there were numerous nuances behind each architect's use of simplicity, but the broader cultural and social factors help establish interpretive changes of the idea.

### Situating Simplicity: 1820-1850

In the first half the nineteenth century, the phrase “republican simplicity” appeared in everything from popular magazines to political rhetoric.<sup>15</sup> Republican simplicity was an attempt to distinguish America from Europe in terms of society, industry, politics, and culture. Historian David Shi traced the intellectual history of republican simplicity from the Puritans and Quakers to the Civil War. He presented the foundations of American simplicity in religious groups, leaders of the American Revolution, the Transcendentalists, and numerous popular authors who “demonstrate[d] a persistent desire to elevate American life above the material and the mundane.”<sup>16</sup>

In this respect American simplicity originates with a deep spiritual conscious. Books such as David Hackett Fischer’s *Albion’s Seed*, Sacvan Bercovitch’s *The Puritan Origins of the American Self*, and David Shi’s *The Simple Life* began American intellectual history with the Puritans and New England colonies.<sup>17</sup> The religious fervor continued into the early nineteenth century with the Second Great Awakening

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<sup>15</sup> One only needs to peruse the *Democratic Review* published in the early 19<sup>th</sup> century to see the frequency of the term. Studies exploring the phenomenon of republican simplicity include: John F. Kasson, *Civilizing the Machine: Technology and Republican Values, 1776-1900* (New York: Hill and Wang, 1999); David E. Shi, *The Simple Life: Plain Living and High Thinking in American Culture* (Athens, GA: University of Georgia Press, 2007).

<sup>16</sup> Shi. 6.

<sup>17</sup> David Hackett Fischer, *Albion's Seed: Four British Folkways in America* (New York: Oxford University Press, 1989); Sacvan Bercovitch, *The Puritan Origins of the American Self* (New Haven: Yale University Press, 1975).

(c. 1795 – c. 1835).<sup>18</sup> During this period, a number of religious settlements across America claimed simple living as part of their daily ethic. The most notable sect was the Shakers, whose famous designs appeared after the 1820s following their own spiritual reawakening called the Era of Manifestations (1837-1850).<sup>19</sup> The Second Great Awakening was a period when American society reflected on their moral values, attempting to return to a romanticized faith-centered society with humble roots originating the clearing the wilderness.<sup>20</sup>

There was also a political dimension to American simplicity. Following the Revolution, the United States appropriated numerous emblems from the Roman republic.<sup>21</sup> Many notable leaders of the Revolution, including George Washington,

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<sup>18</sup> William G. McLaughlin, "Revivalism," in *The Rise of Adventism: Religion and Society in Mid-Nineteenth Century America*, ed. Edwin S. Gaustad, 119-150 (New York: Harper & Row, 1974). esp. 134, 138-142. McLaughlin noted that the phenomena of a Second Great Awakening appeared and concluded at various times in various regions. For example, New England and Kentucky experienced an increase in revivalism around 1795, yet the number of revival camps in Kentucky decreased after 1810 while in New England there was a spike in 1818. Western New York saw an increase in revival activities from 1825-1835 led by Charles G. Finney and between 1858-1861 there were noon-day prayer meetings. McLaughlin concluded that 1795-1835 was the general range for revival meeting surges.

<sup>19</sup> John T. Kirk, *The Shaker World: Art, Life, Belief* (New York: Harry N. Abrams, 1997). 156-159.

<sup>20</sup> This is a reference to the wilderness and Puritan Great Awakening taken from Perry Miller, *Errand Into the Wilderness* (Cambridge, MA: Belknap Press of Harvard University Press, 1956). Esp. 160-162.

<sup>21</sup> This was a point touched by Talbot Hamlin in discussing the associations of Greek Revival. Talbot Hamlin, *Greek Revival Architecture in America: Being an Account of Important Trends in American Architecture and American Life Prior to the War Between the States* (New York: Dover, 1964). 5. For a critique of Talbot's American exceptionalism and the extent of the political association between Greek Revival architecture and American politics, see W. Barksdale Maynard, *Architecture in the United States, 180-1850* (New Haven: Yale University Press, 2002). 252-255, 260-264. Cincinnatus was a Roman, not a Greek, leader (actually a

formed the Society of Cincinnatus in honor of Lucius Quinctius Cincinnatus.

Cincinnatus was a Roman noble who was dishonored by his son, lost his fortune, and compelled to live as a humble farmer. When Rome sought his consul during a major crisis, he was plowing his fields. He served as dictator during the crisis and when it was over, he relinquished control and returned to his fields. It was a story that Washington reenacted – the gentleman planter who led a victorious army and surrendered his sword to Congress. Following the precedent set by Cincinnatus, Washington attempted to return to private life after completing his military task in a time of crisis and also identified a government of representatives, not the military, as the legitimate governing body.

In the creation of the American republic, James Madison defended the Constitution's structure in both preventing a single body controlling the government and reflected back on ancient Republics, such as Rome, as models and lessons for the nation's government. Madison defined a republic as "a government which derives all its powers directly or indirectly from the great body of the people, and is administered by persons holding their offices during pleasure, for a limited period, or

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dictator) but Hamlin's larger argument was that Americans in the early republic looked to antiquity for emblems and identity free from monarchical associations of modern Europe, including for their architecture. It is important that the association of Cincinnatus as a temporary dictator in a republic, rather than a democracy. James Madison turned primarily to the Roman Republic, not Greek democracy, as the model for the Constitution and structure of the United States government. Washington, Madison, Thomas Jefferson, and John Adams could all be associated with Cincinnatus; all had relative humble backgrounds compared to European aristocrats and all retired to their private lives once fulfilling the obligations of public office.

during good behavior.”<sup>22</sup> Like the hero Cincinnatus, American politicians would have power for a limited time, fulfilling an obligation, and then returned to private life. This differed from many ancient republics like Rome where senators held office for life. Instead American senators were elected by the state legislatures (which changed with the ratification of the 17<sup>th</sup> Amendment in 1913) for a six year term but could be checked by the House of Representatives. Representatives elected “with the people on their side, will at all times be able to *bring back the Constitution to its primitive form and principles.*”<sup>23</sup> The political power invested in the common American voter prevented even the Senate of an elected Congress from consolidating too much control, which was the mistake of ancient senates. The foundation of American government resting on the beds of long-lasting ancient republics coupled with the will of common American voters via the House of Representatives anticipated a common phrase identifying American society during the early nineteenth century as “republican simplicity.”

In part the political dimension of simplicity corresponded to the Industrial Revolution. Alexander Hamilton, for instance, was one of the most vocal promoters to free American industry from Europe and a founding member of the Society of Cincinnatus. John Kasson argued that republican simplicity was an ideology that

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<sup>22</sup> James Madison, *Federalist No. 39* (1788).

<sup>23</sup> *Ibid*, *Federalist No. 63* (1788). My italics. For more on the republican origins of American government, see Bernard Bailyn, *The Ideological Origins of the American Revolution* (Cambridge, MA: Harvard University Press, 1967).

shaped American industry and industry reciprocally redefined republican ideology in terms of machine aesthetics. American technology was partly developed by artists, such as Samuel F. B. Morse and Hiram Powers, who combined the need for practical machines and cultivated American fine arts. Machines were also emblematic of republican simplicity through their use of ornament, such as depicting eagles or stars, which signified American manufacturing independence from Europe. Freedom of choice also played a role as catalogs featured machines with various kinds of decorative cases, so consumers could purchase a machine that reflected one's own taste. While some machine designers eschewed ornament, most machines from the nineteenth century celebrated ornament that elevated it from a mechanical to fine art.<sup>24</sup>

Implied in this dilemma was the development of American cities and whether industry would work in relation to the agrarian economy or if American cities will suffer the blight and degradation of European cities.<sup>25</sup> Thomas Jefferson maintained that increased economic activity would not turn into a degenerate society provided that there was cheap land to cultivate and a self-imposed moderation tempered greed. This, in turn, led to a mixed secular understanding of republican simplicity

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<sup>24</sup> Kasson, op.cit. 148-61, 180.

<sup>25</sup> Ibid. 3-51. See also Leo Marx, *The Machine in the Garden: Technology and the Pastoral Ideal in America* (New York: Oxford University Press, 2000). From a literary criticism standpoint on this same topic, see Morton White and Lucia White, *The Intellectual Versus The City: From Thomas Jefferson to Frank Lloyd Wright* (New York: Mentor, 1962).

brought on by industrialization.<sup>26</sup> Stemming from Jefferson, republican simplicity espoused efficiency and refining one's life within one's means and developed economic independence from Europe. Increased industrialization also decreased the cost of commodities, thus making it easier for the stratified social classes to overindulge in material goods. However, a Jeffersonian position of self-sufficiency was at odds with the dependence on manufactured goods. From the late eighteenth to early nineteenth century factories could produce and peddlers could distribute goods to Americans living in regions beyond urban centers. Those knowledgeable in the quality and use of goods, the gentry, felt it was their obligation to inform those in the cultural hinterlands how to follow decorum when selecting and using their new purchases. Etiquette magazines and novels recounted stories that instilled a republican simplicity whereby consumers could purchase goods provided they controlled their spending within their social standing.<sup>27</sup> By knowing what to buy and spending within one's budget, one demonstrated proper taste rooted in being simple rather than extravagant.

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<sup>26</sup> Thomas Jefferson, *Notes on the State of Virginia* (Chapel Hill, NC: University of North Carolina Press, 1982). 164-165. See also Shi, 8-92. For Jefferson's conviction that land brought societal stability, see Henry Nash Smith, *Virgin Land: The American West as Symbol and Myth* (Cambridge, MA: Harvard University Press, 1970).

<sup>27</sup> David Jaffee, *A New Nation of Goods: The Material Culture of Early America* (Philadelphia: University of Pennsylvania Press, 2010). 156-168. See also Richard Bushman, *The Refinement of America: Persons, Homes, Cities* (New York: Vintage Books, 1993). 407. Jaffee focuses on the production and distribution of goods and who bought them whereas Bushman interpreted how those goods were perceived as refinement.

Extravagance in nineteenth century architecture was often associated with the degree of ornament on the building. A leading proponent of taste in architecture around 1850 was Andrew Jackson Downing, who wrote: “those who have followed us in our development of the true sources of interest in rural architecture will agree with us that tasteful simplicity, not fanciful complexity, is the true character of cottages.”<sup>28</sup> Downing identified taste as promoting aesthetic features recognized through time as exemplary but articulated through ornament. Typically Downing’s comments on ornament were vague in allowing some ornament on cottages but not too much as to overindulge (a relative argument). The one instance where he was precise explained that ornament was for doorways, windows, gable ends and the chimney.<sup>29</sup> It is necessary to have trim located where one element meets another, such as the door or window frame to the wall, or the roof to wall at the gable. His first house comparison for *The Horticulturalist* in 1846 demonstrated how a “bald and bare” country house could be improved with tasteful simplicity [Fig. 1.1].<sup>30</sup>

The “bald and bare” house had a Grecian porch in front of the door, a gable roof and wall openings lacked trim to give these elements an edge, and the chimneys were unadorned brick shafts with a cap. The “improved” version replaced the Grecian portico with a bracketed veranda across the entire front, added a dormer and

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<sup>28</sup> A. J. Downing, *The Architecture of Country Houses* (New York: Dover, 1969). 71.

<sup>29</sup> *Ibid.* 46-47.

<sup>30</sup> A. J. Downing, "Rural Architecture: Design for Improving an Ordinary Country House," *The Horticulturalist and Journal of Rural Art and Rural Taste* I, no. I (July 1846): 13-15.



ornamental rake boards and fascia boards, the chimneys were more prominent with vertical recesses so shadows gave the surface contrast, and even the windows had a band of trim above their heads and slightly more pronounced sills. Trim could be ornamented since it covered a small area compared to the overall surface of the wall, so the limitation as a part of the overall wall composition defined the extent of ornament. The differences between these two compositions illustrate the plain, “bald and bare” simplicity and a symbolic simplicity on the other.



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**Figure 1.1** A. J. Downing, "Rural Architecture. Hints for Improving an Ordinary Country House," from *The Horticulturist* (July 1846).

If we could ask Giedion, Hitchcock, and perhaps a young Lewis Mumford which design was simple, they would likely select the “bald and bare” house because it did not have the pretentious and superfluous historicist ornament. The bald and bare house leaned towards the Quaker belief of plain living – the house is well maintained, had good proportions in composition and composure, and even the porch suited the decorum for a covered entry just as plain buttons suited the decorum of a Quaker jacket. The house performed its function in providing shelter for the family and dignity in its manner towards the country road.

The “improved” house on the other hand was a different interpretation of simplicity that is harder to identify for twentieth and twenty-first century critics. Downing’s simplicity is symbolic, meaning that the use of ornament expressed an internal personality rather than outward formality.<sup>31</sup> This gave the improved house two important and reciprocal aspects. First, the ornament liberated the house from vernacular building conventions. The improved house was not common or associated with the then popular Grecian architectural style; it was independent. Second, the ornamental trim should be selected by the owner to express the owner’s personal character as much as civic dignity. Downing’s symbolic simplicity was analogous to Kasson’s explanation for ornament in republican simplicity whereby

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<sup>31</sup> Another project that exemplifies the debate between symbolic simplicity and bald and bare simplicity was Founder’s Hall at Girard College. That argument and story is in Bruce Laverty, Michael J. Lewis and Michele Taillon Taylor, *Monument to Philanthropy: The Design and Building of Girard College, 1832-1848* (Philadelphia: Girard College, 1998).

republican ornament identified a machine made in America, independent of Europe, and that the customer was free to select the proper ornament for the business or personal taste. The improved house was symbolic of republican simplicity because it was free from common plainness so that the owner was free to express personal taste and character.

A number of nineteenth to early twentieth century American designers tried to distinguish themselves from their European colleagues with a distinct national identity.<sup>32</sup> In 1855, A. J. Downing was ambivalent between European and American country villas. On the one hand, Downing criticized the European villa because it symbolized wealth acquired from the servitude of others, whether tenant farmers in England or serfs in Russia. In the United States it was acceptable for anyone to aspire towards an American villa provided it was from result of dedicated work. This meant European landlords acquired their villas through inheritance whereas American landowners, so he claimed, started from scratch with every generation: “It is better...that it should be possible for the humblest laborer to look forward to the possession of a future country house and home like his own....”<sup>33</sup> A dubious claim

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<sup>32</sup> For a brief overview of Downing in the context of republican simplicity, see Judith K. Major, *To Live in the New World: A. J. Downing and American Landscape Gardening* (Cambridge, MA: MIT Press, 1997). 109-113. For an interpretation of Downing’s republicanism, see David Schuyler, *Apostle of Taste: Andrew Jackson Downing, 1815-1852* (Baltimore: Johns Hopkins University Press, 1996). 5-6.

<sup>33</sup> Downing, *The Architecture of Country Houses*. 263-70.

to be sure, but it was part of the rhetoric for republican simplicity as one with humble origins distinct from European society.

Republican simplicity can be considered both elitist and humble with regards to architecture and society. It was elitist from its Puritan origins in favoring a clear social hierarchy, though one could move to up the class chain through determination and wit. It also encouraged the refinement of taste passed down from the cultural elite down to commoners. It praised American exceptionalism and encouraged industrial independence from Europe as much as political independence. On the other hand, personal independence was also praised through Jefferson's agrarian vision for society. The gentleman farmer was the backbone of American society and a society of small towns prevented the urban blight conditions Jefferson associated with London or Paris. Republican simplicity had the paradoxical pairing of American exceptionalism and humility and the moderation of those views was pervasive for American simplicity. Benjamin Franklin captured the irony best in his *Autobiography* regarding his own aspiration for humility: "Imitate Jesus and Socrates."<sup>34</sup>

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<sup>34</sup> Benjamin Franklin, *Autobiography and Other Writings*, Oxford World's Classics (Oxford ; New York: Oxford University Press, 2008). 86.

**Situating Simplicity: 1870-1900**

Following the Civil War, the values of republican simplicity regarding social stability, restraint in manufacturing, and exceptionalism from Europe were turned on their head. Manufacturing increased as a result of the war with an expansive burst of steel mills in western Pennsylvania and northeastern Ohio along with other manufacturing hubs in Michigan, Indiana, and Illinois. Factories also attracted the perceived lower classes of society. Recently freed slaves moved north to places like Chicago to find a better means of living. They also competed with eastern European immigrants settling in Chicago, Pittsburgh, and Cleveland. Racial and social tensions fueled strikes, riots, and terrorist attacks, such as the Haymarket bombing in Chicago (1886) or the Homestead strike outside of Pittsburgh (1892). In spite of these problems, more affluent Americans sought an improved life through expenses, rather than frugality, by traveling abroad to Europe, bought the latest appliances for their homes, and supported churches, charities, and the arts. Mark Twain labelled this contradiction the “Gilded Age,” a period seemingly prosperous and idyllic for middle class and wealthy white Americans, yet it was only a thin gilding over the decadence of American society.<sup>35</sup> At this time of great social upheaval, many Americans would be attracted to simplicity as a means to achieve tranquility.

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<sup>35</sup> Mark Twain and Charles Dudley Warner, *The Gilded Age*, 2006 Modern Library ed., The Modern Library Classics (New York: Modern Library, 2006). The “Gilded Age” comes from the title of a fictional novel about wealthy American society.

The architecture profession both contributed and responded to the social and technical tensions of the period. Joanna Merwood-Salisbury observed that Chicago architects and builders frequently criticized labor strikes in the construction industry. Anarchist movements promoted violence and terrorism against industrialists and busy centers of commerce. Furthermore, a building's structure changed from load-bearing masonry to iron and steel frames. The dominance of bricklayer's unions ceded ground to new steel fabricator unions, with tensions mounting on the job site with architects and builders acting as negotiators to keep the project on schedule.<sup>36</sup> There is no mystery as to the reason why architects would be angered by tensions on the job site – their clients lost money with every delay in the schedule. However, even with the criticisms of labor unions Merwood-Salisbury reviewed in *Inland Architect*, those sentiments did not overtly appear in the architect's rhetoric for simplicity in architecture.

Instead the architects seeking simplicity in architecture during the latter half of the nineteenth century turned to history to understand contemporary society. One of the more scholarly architects at the time, Henry van Brunt, wrote, "Our independent and entirely unprejudiced attitude toward the historical styles is in itself a condition out of which our art should develop a certain quality of distinction. There is a peculiarly American character in our political institutions and social

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<sup>36</sup> Joanna Merwood-Salisbury, *Chicago 1890: The Skyscraper and the Modern City*, Chicago Architecture and Urbanism (Chicago: University of Chicago Press, 2009), text. 28-37, 43-44.

ideals, though these institutions and ideals have their roots in ancient civilizations.”<sup>37</sup>

Van Brunt desired to circumvent the culmination of European culture by going back to the origins of Western society and architecture. This intention appeared in a defense for the neoclassical facades of the 1893 Columbian Exposition whereby Van Brunt argued that classical architecture was simple because it accommodated variations on an architectural theme. The intention was to have “a style most associated with modern civilization, a style so organized and accepted that personal fancy or caprice should have the smallest possible scope in it.” The elements and proportions of classical architecture provided the standard on which all the contributing architects followed. “[A] common module of proportion should be used, the height of the grade line to the top of the cornice should be sixty feet, and that each building should include along its entire frontage an open portico, the result has not been a tedious monotony, but a variety in unity as marked as possible to conceive.”<sup>38</sup>

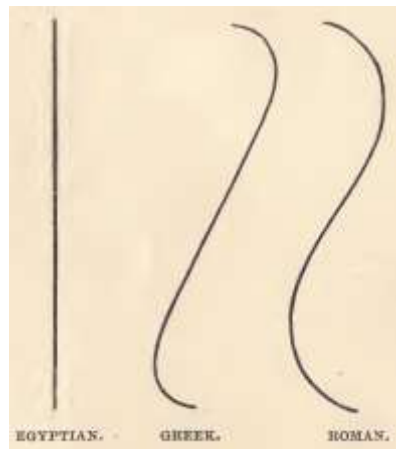
Before translating Viollet-le-Duc’s *Discourses on Architecture* in 1875, Van Brunt theorized the simplicity of lines enabling the variety of building profiles. The core of

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<sup>37</sup> Henry van Brunt, "The Growth of Characteristic Architectural Style in the United States," in *Architecture and Society: Selected Essays of Henry van Brunt*, ed. William A. Coles, 319-327 (Cambridge, MA: Belknap Press at the Harvard University Press, 1969). 320.

<sup>38</sup> Henry van Brunt, "The Historic Styles and Modern Architecture," in *Architecture and Society: Selected Essays of Henry van Brunt*, ed. William A. Coles, 289-304 (Cambridge, MA: Belknap Press, 1969). 300. Van Brunt wrote a more extensive description and rationale behind the fair’s design in “Architecture at the World’s Columbia Exposition,” op. cit. 225-288.

Van Brunt's thesis was that the Greek line, a nearly imperceptible curving line at an angle with two tight curves at the ends, was a simple and mediated expression between the austere (Egyptian) and a sensuous, perhaps even sensual, (Roman) architecture [Figure 1.2]. His interest in recalling the Greeks was to instruct architects to turn to ancient Greece to learn first principles of architecture in order to be creative.<sup>39</sup> The point was not to copy the Greeks, but to recognize certain design principles that one could appropriate in order to compose a building that emulated the beauty of Grecian buildings. The Greek line was a line that was always changing, never straight and always generating a slightly different profile.



**Figure 1.2** Henry van Brunt. "Egyptian, Greek, and Roman Lines" from *Greek Lines and Other Architectural Essays* (1893).

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<sup>39</sup> Henry Van Brunt, "Greek Lines," in *Greek Lines and Other Architectural Essays*, 1-91 (Boston: Houghton, Mifflin and Co., 1893). 27-30, 89-90. First published in *Atlantic Monthly*, vol. 7, no. 44, June 1861. 654 c.f.



Van Brunt noted promising starts to the Greek line, but each met limitations before the promise was fulfilled. The Gothic cathedral was one, but failed to achieve Greek creativity because the masons were interested in replicating nature in art as a divine act of God rather than as an abstraction of human perception that van Brunt interpreted in Greek architecture. In the nineteenth century, the German architects Karl Friedrich Schinkel and Leo von Klenze each showed promise in using Greek lines, but van Brunt felt Schinkel was too conservative (he did not elaborate on this critique) and Von Klenze fell from grace when he replicated the Parthenon for Walhalla.

The most notable building expressing the simplicity of the Greek line in his opinion was Henri Labrouste's Bibliothèque St. Geneviève. It was "the most important work with pure Greek lines, and perhaps the most exquisite, while it is one of the most serious, of modern buildings. The learning exhibited in this composition does not make it pedantic, its careful simplicity of motif does not weaken its interest, nor does its refinement and purity destroy its power."<sup>40</sup> Van Brunt did not elaborate on what motif specifically has the element of simplicity in Bibliothèque St. Geneviève, but his praise for Labrouste's design as modern suggested a rejection of building idealized Greek temples to constructing details emulating the subtlety and vitality of the Greek profile.

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<sup>40</sup> Ibid. 85.

The broader intellectual context for Van Brunt's Greek lines and their fulfillment in Bibliothèque St. Geneviève was due to Labrouste's contribution in formulating *néo-grec* architecture. Neil Levine's formulation of the *néo-grec* in the context of Labrouste and his library positioned Van Brunt's critique as liberating nineteenth century classical architecture from replicating ancient forms to revitalizing ancient Greek creativity. Labrouste's reconstructions of Paestum between 1828 and 1829, for example, challenged the purity of Greek temples by indicating deviations from the accepted classic Greek design rules. Those drawings highlighted renounced previous generalizations of ancient architecture: 1) there was no single generic meaning behind a building type, 2) forms of buildings were based on facts rather than ideal representations, and 3) "a systematic rather than mythological view of history."<sup>41</sup> The idealized temple forms were too simplistic for *néo-grec* architects. Instead, the simplicity of ancient Greek architecture was in the construction of the details, whether constructing the decoration in legibility of ideas and structure as Levine argued for St. Geneviève, or constructing the profile as Van Brunt argued in "Greek Lines."

Van Brunt considered simplicity as a balance between the intellect and material because it "restrains the passion of life with a spirit of intellectual

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<sup>41</sup> Neil Levine, "The Romantic Ideal and Architectural Legibility: Heri Labrouste and the Neo Grec," in *The Architecture of the École des Beaux Arts*, ed. Arthur Drexler, 325-416 (New York: Museum of Modern Art, 1977). 332.

tranquility” as expressed in the Greek line.<sup>42</sup> Simplicity manifested itself in architecture through an honest and straightforward use of materials and construction, it shows restraint in ornamentation, and it considers the purpose of the building from its essential, perhaps even its primitive, origin. “A beginning once made by primitive discovery and experiment, art, like nature, must thenceforward proceed by derivation and development; and where architectural monuments and traditions have accumulated to the vast extent that they have in modern times, the question is not whether we shall use them at all, but how shall we choose among them, and to what extent shall such choice be allowed to influence our modern practice.”<sup>43</sup> For Van Brunt, a pragmatic approach to history - conserving what is perennial and discarding unnecessary conventions in construction and composition – simplified what was essential for contemporary architectural practices without resulting in historicism.

Contemporary with Van Brunt’s translation of Viollet-le-Duc, John Root translated German architecture theory into English, perhaps partly because of the significant German population in Chicago. Root translated Gottfried Semper’s essay “Development of Architectural Style” for *The Inland Architect* between 1889 and 1890. In the essay Semper wrote, “We are unintentionally led, or rather forced...to inquiries into the origin of building styles, if we see with our eyes a series of

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<sup>42</sup> Henry van Brunt, “Greek Lines.” 25.

<sup>43</sup> Henry Van Brunt, "Introduction," in *Discourses on Architecture*, iii-xviii (Boston: James R. Osgood and Company, 1875). x-xi.

beginnings of so-called architectural styles, whose would-be inventor feels himself inspired to devise new kinds of buildings which shall be purely practical..."<sup>44</sup> In developing an architectural style that suited the complexity of contemporary life there is a search for origins, just as Semper himself discovered in the four elements of architecture. But Semper, and indirectly Root, cautioned that there is a difference between a search that is archeological and one that is interpretative. Semper continued: "Fortunately, the subjects for artistic fertilization which obtained form by the creative power of man were never formed by the true conditions of things, but always by traditional subjective conceptions of this true condition of things... This conception serves as a basis for all traditional architecture."<sup>45</sup> In other words, Semper was not as interested in adhering to architecture as found in the field conditions of ancient sites as he was in imagining the life in and around them when they were in use. Although Semper wrote of tradition, he did not favor a particular revival style. In fact, developing a style from tradition was an interpretation by the architect rather than an archeological reconstruction.

The distinction between archeology and imagination for Semper as a means to find simplicity can be inferred from his primitive hut. The hut served as a model for the elements of all buildings regardless of their style or function. Every building

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<sup>44</sup> Gottfried Semper, "Development of Architectural Style," *The Inland Architect* XVI, no. 7 (December 1889): 76-78.76.

<sup>45</sup> *Ibid.* 77.

needs a roof, enclosure, foundation, and an element to bind together societies.<sup>46</sup>

With the social unrest in the latter half of the nineteenth century, the binding of communities would likely appeal to architects and the American public. Primitive architecture and the continuity of building elements and spaces through time offered stability and it became a recurring theme for simplicity in American architecture.

### **Situating Simplicity: 1900-1920**

A short but popular book appeared in the United States called *The Simple Life* (*La vie simple* - 1901) written by Charles Wagner, a French theologian. Wagner posited that the simple life is a state of mind unique to every individual and that moderation in life was relative to one's social position.<sup>47</sup> Philadelphia department store owner John Wannamaker helped finance a speaking tour for Wagner in the United States from 1903 to 1904, which included an invitation to the White House from Theodore Roosevelt. After his travels, Wagner wrote another book, *Vers le coeur de l'Amérique* (1906), which described his American tour, including a visit not only to the White House but also the Bowery in New York and the Chicago

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<sup>46</sup> Gottfried Semper, *Die Vier Elemente der Baukunst* (Braunschweig: F. Vieweg, 1851). See also Gottfried Semper, *The Four Elements of Architecture and Other Writings*, trans. Harry Francis Mallgrave and Wolfgang Herrmann (Cambridge: Cambridge University Press, 1989). Semper further developed his metaphor of weaving to bind communities as an anthropological and architectural study in *Der Stil*, see note 60.

<sup>47</sup> Charles Wagner, *The Simple Life*, trans. Mary Louise Hendee (New York: McClure, Phillips & Co., 1904). The introduction to the translation includes a biography on Wagner by Grace King.

stockyards. Even after visiting what many would consider the most vile places in the country, Wagner concluded that simplicity was fundamental to America life. It was true that America had its problems but, he claimed, you cannot judge a face with a few blemishes. Chicago was home to the infamous stockyards, but it was also home to Jane Addams' Hull House. Instead, Wagner observed the charitable work by American citizens and an undying effort to make their country the greatest in moral integrity.<sup>48</sup>

Moral integrity was at the heart of the American Arts & Crafts Movement reaching its peak at the start of the twentieth century. Unlike its English counterpart, the American Arts & Crafts Movement considered moral integrity but without the Socialist politics held by William Morris.<sup>49</sup> The Americans carefully selected English writings on simplicity. For example, Edward Carpenter was often featured in *The Craftsman*, yet Carpenter's own anarchist politics would hardly win favor with the American public so soon after the Haymarket bombing. Even the American preferences for architecture focused on the English estates by architects like Norman

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<sup>48</sup> Charles Wagner, *Vers le coeur de l'Amérique* (Paris: Librairie Fischbacher, 1906). "La substance fondamentale de 'la meilleure Amérique' c'est la *simplicité* (374)." Italics original.

<sup>49</sup> When *The Craftsman* wrote a tribute to Morris in 1901, it praised Morris' exultation of the artist while also stating "In an effort to offer an accurate portrait-sketch of William Morris...we have thought best not to conceal those characteristics which separated him so widely from the men of his class and condition...But in his violent and sudden reversions from the active to the contemplative life, we may see the effort of a truly practical man of his time to control the impulse of the prophet within him..." (15), and later: "His Socialism from the beginning was of the heart, not of the head." (20). Gustav Stickley, "William Morris: His Socialist Career," *The Craftsman* 1, no. 1 (1901): 15-24.

Shaw or C.F.A. Voysey rather than the workers housing projects under development at the time.<sup>50</sup> It was primarily England that American designers looked for simplicity and morality in architecture and standards for mass production.

One of the most vocal promoters of simplicity in American design during the early twentieth century was Gustav Stickley through his *Craftsman* magazine. He admired Barry Parker's book, *The Art of Building a Home* (1895) and featured excerpts as well as Parker's houses. However, even in his admiration for the simplicity of English houses, Stickley made clear distinctions between British and American simplicity.

In the January 1906 issue of *The Craftsman*, Stickley compared a reception hall design by Parker with one for a Craftsman house [Fig. 1.3]. Parker's design had the heavy character of timber construction. Stickley described it as "especially rich in its structural features, and inviting in its suggestion of comfort and spaciousness...The opening into [the] recess shows the low wide arch so much used in English houses, and the same construction is repeated throughout the hall, even to the stair rails and the tiny recesses of the cupboards." Parker's design took a structural motif, the arch, and applied to numerous spans in the room (except the bay window). The arch

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<sup>50</sup> The comparison between English Manor homes and American architecture can be seen in Vincent J. Scully, *The Shingle Style & the Stick Style: Architectural Theory & Design from Downing to the Origins of Wright* (New Haven, CT: Yale University Press, 1971). 87-88. An example of worker's housing in England from this period is W. Alexander Harvey, *The Model Village and Its Cottages: Bournville* (London: B. T. Batsford, 1906).

indicated areas that were carved out of the room. The cupboard was carved out of the stair, the recess was carved out of the wall, and bookshelves were carved out of the dividing wall between the stairs and recess. The overall character of Parker's hall was the "appearance of massiveness and security very expressive of the whole spirit of the English home."<sup>51</sup>



**Figure 1.3** Left: Barry Parker, "English Reception Hall," (1895). Right: Gustav Stickley, "A Craftsman Reception Hall" from *The Craftsman* (1906).

In contrast, the Craftsman reception room was much lighter in character and unified the various elements of the room even tighter together. Spaces were not carved out of the room, but shaped by the use of built-up architectural elements, namely the stair and seat. The woodwork consisted of thin, flat panels and dimensional lumber not the heavy timber of the English hall. The wainscot set the datum to the room as the height for the backrest of the seat, the guard for the first set of steps, the height of the bookcase and the window stool. The staircase tied three

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<sup>51</sup> "The Hall and Its Importance in the Modern House," *The Craftsman*, January 1906: 530-539. 531.



elements of the room; the closet, the seat, and the window. Unlike Parker's design, where the stair was a backdrop to the room, Stickley made the stair the feature element that unified the room. "Treated in this manner, the staircase seems intended for beauty as for utility, and so fulfills its manifest destiny in the Craftsman idea." Fulfilling a manifest destiny is a bit of an exaggeration - it was just a staircase - but the combination of utility and beauty being the feature piece of the room was Stickley's American approach to simplicity.

Parker's stair may have been beautiful, and served a functional purpose, but the window recess is the focus of the rendering, not the stair. Parker's stair participated in the room as a background element in a separate alcove, but it was not incorporated into the focal alcove seat in Stickley's hall. Removing Stickley's stair would eliminate the bench, the coat closet, the light fixture and the recess for furnishings like the bookcase. The English reception room may have inspired the character of the Craftsman hall, but Stickley's illustration brings together window, stair, seat, and surface into one unified ensemble out of distinctly different elements.

The kinds of furnishings are another important distinction between the two images. Parker's hall has only built-in furnishings – the bookcases are embedded in the wall and the window seat is fixed. Stickley, on the other hand, shows a bookcase and chair as movable furniture. The distinction is subtle but important because it suggests that Stickley's houses are adaptable to different furnishings or different configurations for furnishings. Indeed, Stickley's Craftsman factory provided a

number of furnishings, metalwork, and fabrics that could be placed in any home. The significance is that the mass-production of furniture and other household items were not fixed in the house but accommodated different means of living. This is further explored in the chapter on economy regarding the adaptability of the open floor plan from Craftsman houses.

An excerpt from Unwin and Parker's book *The Art of Building a Home* appeared at the front of Stickley's own book, *Craftsman Homes* – a collection of house plans and articles published in *The Craftsman* journal from 1901-1909. In the excerpt, the English architects desired houses to have rooms “with furniture made for use; rooms where a drop of water spilled is not fatal; where the life of a child is not made a burden to it by unnecessary restraint; plain, simple, and ungarnished [sic] if necessary, but honest.”<sup>52</sup> Parker and Unwin referred to a number of traits Stickley envisioned his house designs embodied: furnishings that were practical, surfaces that were easy to maintain, that everyone in the family - including children - were comfortable, and finally that the design was clear, straightforward, and unadorned.

The coupling of comfort with clear, straightforward residential design was attractive to the Germans as well. Hermann Muthesius also commented extensively on the English house as the model for *sachlichkeit* architecture, an architecture that was not only honest, simple, and straightforward, but also comfortable and cozy.

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<sup>52</sup> Barry Parker and Raymond Unwin, “The Art of Building a Home” in *Craftsman Homes* (New York: Craftsman Publishing Co., 1909). 8.

Muthesius favored the English house over German houses because the English Arts & Crafts architects studied rural residences for building practices and instilled the comforts of home that were native to their ways of life.<sup>53</sup> However, Muthesius did not equate American architecture with *sachlichkeit*; he described the speed of Berlin's development at the "*amerikanischen Tempo*" which contributed to his disgust of German cities.<sup>54</sup>

The return to the vernacular as opposed to celebrating the speed of technology may sound contradictory to our characterization of Muthesius give his thesis presented at the 1914 *Werkbund* Exhibition in Cologne. However, the *sachlich* Muthesius sought for industry was the same rationale for preferring vernacular architecture. The essence of *sachlich* was the return to origins of art, which he claimed were rooted in practical work which achieved its greatest clarity in Gothic

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<sup>53</sup> Hermann Muthesius, *Stilarchitektur und Baukunst* (Muelheim-Ruhr: K. Schimmelpfeng, 1902).62. "Es liegt kein Grund vor, weshalb wir nicht dasselbe in unserm Sinne thun sollten, was man damals in England that: in unserer bürgerlichen Baukunst zur Einfachheit und Natürlichkeit zurückkehren, wie sie in unsern alten ländlichen Bauten eingehalten worden ist, auf jedes Architekturgeklengel an und in unserm Hause verzichten, Gemütlichkeit der Raumbildung, Farbe, natürlichen Aufbau, sinngemässe Gesamtgestaltung einführen, statt uns weiter in der Fesseln formalistischer und akademischer Architekturmacherei zu begeben. Der Weg, den man in England zu diesem Ziele beschritt, nämlich die Wiederaufnahme örtlich-bürgerlicher und ländlicher Baumotive, verspricht uns aber gerade in Deutschland die reichste Ernte, wo die ländliche Bauweise der Vergangenheit mit einer Poesie und einem Stimmungsreichtum umkleidet ist, wie kaum einer der altenglischen Bauten."

<sup>54</sup> Ibid. 63. "Freilich gehört dazu ein Entkleiden von jenem mit der Jugend unserer Neubürgerlichen Kultur zusammenhängenden Zuge, der jetzt noch nur allzuhäufig bei uns angetroffen wird: dem Bestreben, möglichst viel zu scheinen, dem Nebenmenschen zu imponieren, durch prunkvollen Aufwand nach aussen zu glänzen. Gerade dieser Zug ist es, der das Architekturbild ganzer deutscher Städte, wie z. B. des im amerikanischen Tempo aufgeschossenen Berlin, heute so unangenehm macht."

art.<sup>55</sup> Like Stickley, Muthesius found the English house to embody practical living rooted in a cultural tradition. And like Stickley's turn to a guild tradition for his Craftsman workshops, Muthesius turned to the clarity and practicality of primitive Nordic and Gothic art to defend modern industry through the *Werkbund*.

German architects and critics took interest in how Americans merged appearance with industrial practices.<sup>56</sup> Early in the chapter on American design in *Space, Time and Architecture*, Sigfried Giedion quoted several German and French visitors to the 1876 Philadelphia Exhibition who found the artifacts ranging from locks to furniture lacked ornament. Foreshadowing his later critique of the Chicago school and Frank Lloyd Wright, Giedion wrote that these objects anticipated "the characteristic which gave American industrial art its individuality and significance for the future: simplicity."<sup>57</sup> Earlier, in 1923, Adolf Behne associated American architecture with *sachlichkeit* through his knowledge of Henry Ford's autobiography and Frank Lloyd Wright's Wasmuth portfolio (1910). Behne used Ford's factory to

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<sup>55</sup> Ibid. 65. "...im neunzehnten Jahrhundert zum ersten Male wieder auf jene nordischen Anschauungen einer Grunde ihres Wesens sachlich und wirklich empfindenden Kunst zurückgekommen, die die gotische Zeit in so grosser Klarheit verkörpert." *Sachlichkeit* cannot be precisely translated into English. General consensus among scholars is that it is a combination of "simple, straightforward, and practical." See Rosemarie Haag Bletter, "Introduction," in *The Modern Functional Building [Der Moderne Zweckbau]*, 1-83 (Santa Monica, CA: Getty Research Institute for the History of Art and the Humanities, 1996).47-49. The meaning relates to English simplicity and would be another research topic beyond the scope of this dissertation.

<sup>56</sup> It is beyond the scope of this dissertation to extensively explore the European and American exchange of ideas on simplicity in design, but it exists and would further situate American simplicity in an international context.

<sup>57</sup> Gidieon. 261-64.

bridge Walter Gropius' observations of American grain silos with Peter Behren's AEG Turbine factory to demonstrate the extent of unifying utilitarian design with production. In this context, Behne described Wright as a "sober, *sachlich* American" whose "will, with the machine's help, has constructed the building from prefabricated parts, with all its angles and corners."<sup>58</sup> Behne's characterization of Wright's work is debatable to say the least, but he indicated the potential for American architecture should it pursue simplicity. Giedion and Behne associated American simplicity with industrial standards, the ability for Americans to eliminate unnecessary ornament for the sake of the manufacturing process.

Not all German critics intertwined American simplicity with industrial standards. In 1908 Adolf Loos, who lived and traveled in America between 1893 and 1896, reflected on his observations of the common people of America. "The American worker conquers the world. The man in overalls," was the conclusion to Loos' essay "Culture."<sup>59</sup> Loos' clothing parable equated the purpose of clothing with the activity; the English farmer wears boots in the field when riding the plow but would be very uncomfortable walking in the streets. Loos viewed Americans from their labor roots and that their simple dress, overalls, maintained their connection between labor and appearance. Loos suggested that American simplicity, the plain

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<sup>58</sup> Adolf Behne, *The Modern Functional Building [Der Moderne Zweckbau]*, trans. Michael Robinson (Santa Monica, CA: Getty Research Institute for the History of Art and the Humanities, 1996). 104-105, 111-112.

<sup>59</sup> Adolf Loos, "Kultur," in *Adolf Loos: Gesammelte Schriften*, ed. Adolf Opel, 356-358 (Vienna: Lesethek, 2010). 358. *Der amerikanische Arbeiter hat die Welt erobert. Der Mann im Overall.*

appearance and practical skill, was the highest standard of American culture, not Fordism. The humble vision of American society descending from Jefferson's noble farmer still resonated with European interpretations of American simplicity.

The common themes throughout the historiography of simplicity in architecture gravitate primarily towards historicism, society, and industry. The mid-twentieth century historians and their followers criticized simplicity in the nineteenth century due to its reliance on historicism and profuse ornamentation reflecting an idealized past. Adrian Forty based his definitions on architecture simplicity when he wrote about the rejection of ornament and interest in mass-production. Gwendolyn Wright, and Anthony Light also interpreted socio-architectural simplicity in this regard when writing about architecture as the reflection of social conditions and manipulations. I accept the above interpretations, but they also limit the discourse on simplicity to those three positions and most subsequent studies reaffirm those observations with additional evidence.

Instead, I added three additional categories to simplicity in architecture: historical continuity rather than historicism, humility rather than social elitism, and mass-circulation rather than mass-production. I am more inclined to agree with Gregotti than Forty in that simplicity is the recollection of the origins of architecture. It looks to the past to find primitive examples to build upon rather than replicate

them. Primitive architecture also revealed itself in vernacular traditions, a reaffirmation of simplicity still evident in the modern world. Finally, the nostalgia for primitive and humble architecture resulted in mass-circulation of books and periodicals equating it with the simple life – free from urban strife and social unrest. Simple architecture is rather like C. S. Lewis' stew – it takes root vegetables, boils them together, and comes out as a flavorful comfort food.

### **Outline of Chapters**

A dissertation on architecture can follow the same sequencing of an architectural project by combining practice and theory. Generally, when an architect receives a commission the project moves from programming and planning, to construction, and then to finishing. Programming considers the scope of the project, planning translates the scope into areas in a plan drawing, two-dimensional areas become three-dimensional spaces through construction, then the cladding defines the volume of spaces, and finally qualities of spaces appear in the interior finishes. Planning, constructing, cladding, and finishing are all actions that pertain to the practice of architecture regardless of the building's program. The organization follows the phases of an architectural project; each phase in practice has its own set of problems to address. The topic, in this case simplicity, is theoretical in the sense of an idea approximated through these actions.

In the chapter “Economy,” simple arrangements were economical in how the rooms and spaces relate to each other in function and how those relations were unified as an ensemble. There were at least two significant design approaches to economize the plan. First, the vernacular tradition of house building accommodated future additions. By planning for generations of growth in the family, simple plans allowed for expansion by preserving every room with little or no alterations and still maintain a convenient layout. This was done in the first half of the nineteenth century through constructive geometry – utilizing geometric constructions from basic shapes like the square for geometric proportions so that every additional space could be proportional to the mass of the building and its purpose. In the second half of the nineteenth century adopted antecedents in open plans from rural communal spaces. Domestic architecture utilized the open plan, one that had a single room for multiple functions. The open plan was non-distinctive in partitioning space, unlike the geometric plans previously mentioned, which broke down the hierarchy of uses by giving greater emphasis to performances within one space.

It was one thing to draw an accommodating plan and quite another to erect a structure that allowed for flexibility. The Maison Dom-ino (1914) by Le Corbusier was one of the more notable solutions separating the structure from adjustable spatial configurations. The structure was a concrete skeleton made of slabs and columns that was result of the pourable nature of concrete. In America, the steel frame construction of the tall office building anticipated Le Corbusier’s proposal by



providing a column structure allowing tenants to place walls based on leasable area within the floorplate. However, the trabeated nature of steel construction raised architectural question regarding how to express the nature of steel construction to make the construction simple.

The chapter “Construction” considers two interpretations of how American architects assigned simplicity to expressing the nature of construction through particular materials especially with regards to ornament. For tall office buildings, a number of American architects turned to historical precedents for the origin of construction techniques and material expression, rather than formal precedents, in order to reconcile the new design challenges of steel frames and curtain walls in tall office buildings. Henry van Brunt’s introduction to Viollet-le-Duc’s *Discourses on Architecture*, emphasized primitive construction from ancient Greeks as simple. A number of American architects frequently turned to the Greeks as the precedent for simple construction by noting how the Greeks used material properties to build rather than shape materials to match profiles and imitate old construction. Irving Pond desired honest construction in steel that recognized columns were spliced, not stacked on platforms as found in ancient masonry construction. William LeBaron Jenney’s “plain and ornamented construction” for the tall office building reconciled the method of constructing with different materials without confusing the assemblies. For instance, the steel frame assembly was continuous from the foundation to base while the enclosure, made of masonry, was ornamented with voussiors, columns and

entablatures. Plain and ornamented constructions were unified assemblies because they depended on each other, the steel frames supported a tall building and the masonry protected the frame and the occupants from fire and the weather.

Simplicity in furniture design was just as challenging to define as simplicity in tall office building construction. The size of the object was inconsequential in terms of construction. The Arts & Crafts designer William L. Price, for instance, admonished what he called mixed-construction in furniture because assemblies were in conflict; one could not be repaired without destroying the other. In the background was the Arts & Crafts Movement formulated in England which sought to revitalize the moral obligations of the artist perceived in the medieval guilds. Gustav Stickley, another leader in the American Arts & Crafts Movement, historicized simplicity in very different terms by taking an ontologically primitive interpretation. Stickley was an admirer of Ruskin's morality as evident in quoting him in *The Craftsman*, but he was more interested in returning to what he called "the primitive structural idea." For Stickley the primitive was not to make furniture appear crude or rustic, but to express both the connections of furniture members and to embed ornament as identifying the origins of the material being used. Just as the Chicago architects who looked to the past to find precedents for simple construction, Stickley, and even Price to some degree, revisited the idea of the primitive to express actual joints, not their representations, and to ornament the surfaces of the furniture pieces.

Architects were well aware that the construction of the building not only referred to structure but to the enclosure of the building. Tall office buildings had straightforward structural skeletons, but the cladding raised another question regarding simplicity. The chapter “Cladding” argues that simple cladding maintained a distinction between skin and structure analogous to Gottfried Semper’s use of the descriptor “primitive” [*ur* prefix in German] and *bekleidung* theory developed in the mid-nineteenth century. Semper argued in section 60 of *Der Stil* that the first primitive formal principle of architecture was distinguishing space from construction. As such, cladding should be conceived separately from the actual construction rather than representing a concealed construction on the surface. Semper wrote in a footnote, “Only complete technical perfection, a well understood proper treatment of the qualities of fabrics, but above all the consideration of the latter in the design itself, can the fabric be forgotten, can it completely liberate the art of construction, can it raise a simple painting of nature into a work of art.”<sup>60</sup>

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<sup>60</sup> Gottfried Semper, *Der Stil in den technischen und tektonischen Künsten, oder Praktische Aesthetik, Ein Handbuch für Techniker, Künstler und Kunstfreunde* (Frankfurt am Main: Verlag für Kunst und Wissenschaft, 1860). 227-232. Quotation on 232. “Nur vollkommen technische Vollendung, wohl verstandene richtige Behandlung des letzteren bei der Formengebung selbst, können den Stoff vergessen machen, können das Kunstgebilde von ihm ganz befreien, können sogar ein einfaches Naturgemälde zum hohen Kunstwerk erheben.” Harry Francis Mallgrave and Wolfgang Herrmann translated *Stoff* to “material,” but it makes for a vague statement. Translating *Stoff* as “fabric,” which is a correct translation, makes it clear that was not interested in forgetting literalness of material, but rather the literalness of fabric when employed in architecture. See Gottfried Semper, *The Four Elements of Architecture and Other Writings*, trans. Harry Francis Mallgrave and Wolfgang Herrmann (Cambridge: Cambridge University Press, 1989), 258, for the alternative translation. Otto Wagner’s Post Office Savings Bank (1904-06) in Vienna called attention to the problem of constructing a steel frame with a stone cladding. The

Vincent Scully indicated how American architects contemporary to and following the publication of Semper's *Der Stil* represented or enveloped structure in the Stick and Shingle styles of domestic architecture in the nineteenth century. The Stick style expressed a frame structure and the Shingle style expressed the mass of the house.<sup>61</sup> However, what is surprising to our contemporary sensibilities regarding "truth in architecture" is that neither cladding style telescoped the actual structure to the surface. Even the Stick style framing was not a literal translation of the wood frame concealed within the walls. One interpretation of simple cladding was to represent the wall's structure and the other allowed the cladding to be contradictory to it.

After enclosing the spaces, protecting them from the weather, the last major task is to finish the interiors: putting on the trim, applying the surface finishes on walls and floors, and moving in the furniture - the subject of the chapter "Interiors." Mirroring the economy of simple plans, simple interiors related objects within a room to its purpose and performances. In the early part of the nineteenth century decorum and decoration in simple interiors went hand-in-hand. The objects on

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exposed edges of the stone slabs indicate the slenderness of the slab. The contour of the slab surface casts a deep shadow line at the horizontal joints to suggest horizontal breaks between each layer of stone. The exposed bolts acknowledge the application of the stone to the underlying steel structure which is congruent to the connections of the steel members. David Leatherbarrow and Moshen Mostafavi interpreted this resolution as "masking and revealing." See David Leatherbarrow and Moshen Mostafavi, *Surface Architecture* (Cambridge, MA: MIT Press, 1993). 87-93.

<sup>61</sup> Scully. Esp. liv-lvi, 99-100.

display in rural buildings were often utilitarian – brooms, dishes, and chairs. But utilitarian artifacts did not necessarily equate to bare essential objects for daily life. As consumerism and industry in the nineteenth century grew, decorations became décor.<sup>62</sup> The means to unify the purpose of the room was not through utilitarian objects alone. Furnishings were stylized to match the style and aesthetic of the architecture. Designers debated the degree in which these objects were unified as an ensemble. The most controlling architects understood simple interiors as a unified décor while more accommodating ones allowed for family heirlooms and previous quality furnishings to remain. Regardless to the degree in conforming to a particular décor, the simple interior unified the appearance of the room with its purpose.

The various interpretations of simplicity in American architecture lead to the topic of the last chapter, which argues that the desire for simplicity in American architecture became a high standard for a number of architects that manifested itself in three distinct ways: historical antecedents, publications of patterns, and humble appearances. A number of the American architects seeking architectural simplicity referred to the ancient Greeks. They understood the Greeks as originating the principles of architecture regarding symmetry, proportion, and building in accordance to material properties. These American architects were not interested in

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<sup>62</sup> Lears. Kenneth L. Ames, *Death in the Dining Room and Other Tales of Victorian Culture* (Philadelphia: Temple University Press, 1992). Katherine C. Grier, *Culture and Comfort: People, Parlors, and Upholstery* (Rochester, NY: Strong Museum, 1988). Eileen Boris, *Art and Labor: Ruskin, Morris, and the Craftsman Ideal in America* (Philadelphia: Temple University Press, 1986).

replicating the appearance of ancient Greek buildings, but rather how Greek buildings set the high standard for American architecture. In publications, other architects looked to traditional buildings and tried to improve them through simple means that carpenters could follow, either through pattern books, government circulars, or shelter magazines. They were not trying to reject rural construction or traditions but solve the deficiencies from within the very practices rural builders followed. Architecture deriving from vernacular traditions and primitive origins also gave a number of buildings humble appearances, such as the Shaker meetinghouse or a number of tall office buildings in Chicago. A Shaker meetinghouse looked similar to the dormitories of the town and a Chicago skyscraper in the midst of several skyscrapers did not stand out in scale. The practical approach to construction and arrangement, coupled with cultural roots in humble, even primitive, origins defined the high standards of simplicity in American architecture.

## **Method**

The challenge I imposed on myself for this dissertation was to find a method analogous to the practice of architecture rather than defaulting to historical, statistical, or ideological methodologies. My desire was to show that theory and practice in architecture reciprocate, meaning that an architecture dissertation can be based in the architecture discipline. To resolve this, I turned to Hans-Georg Gadamer's *Reason in the Age of Science* to correlate practice with theory. Gadamer's

definition of theory from Greek *theoria* was the participation of a group sharing a common experience. Gadamer, building on Aristotle, concluded that theory and practice are separable by degree of knowledge, rather than as an opposition.<sup>63</sup> An architectural illustration would be the Greek theater, a cognate of *theoria*, where the audience, chorus, and actors shared a common experience. The plot of a Greek tragedy or comedy is a shared experience we relate to and the performance is action between the actors, mediated by the chorus to engage the audience. Researching architecture is similar in that the researcher engages buildings by seeing how buildings respond to each other with respect to their types in use, construction, and symbolism. The architects and critics mediating between the buildings and the researcher are like the chorus in a Greek tragedy; they respond to the buildings in their time and invite the researcher in the present to engage them.

Hans Sedlmayr and Michael Baxandall described a similar research method to Gadamer but with focus on art history. Sedlmayer argued in “Toward a Rigorous Study of Art” that many art historians tended to impose their own subjective attitude onto artifacts. “The shaping and reshaping of his attitudes toward works of art are guided by factors other than the desire for knowledge.”<sup>64</sup> To find the “correct attitude,” Sedlmayr argued, was to find the intention for the purpose of the work of

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<sup>63</sup> Hans-Georg Gadamer, "What is Practice?," in *Reason in the Age of Science*, trans. Frederick G. Lawrence, 69-86 (Cambridge, MA: MIT Press, 1983). 77.

<sup>64</sup> Hans Sedlmayer, "Toward a Rigorous Study of Art," in *The Vienna School Reader*, ed. Christopher S. Wood, trans. Mia Fineman, 133-179 (New York: Zone Books, 2000). 147.

art at many levels, including personal, cultural, and symbolic. The search for intentions lies at the root of Baxandall's "period eye."<sup>65</sup> Baxandall considered the pragmatic/practical tasks of the artifact being interdependent with the cultural attitudes in which the object was made. These two factors informed his description of the artifact, which reflected the work's intentions.<sup>66</sup> By describing art's intentions from practical and ideal considerations, a method can be independent of ideological frameworks, such as idealism and materialism.

My argument that simplicity was found in American architecture's relations between complex relations grounded in historical analogies, traditions and humble origins was presented through topics rather than building types. The above scholars formed the basis of my intellectual framework while the evidence was architectural drawings and built projects. I began with Stickley's *Craftsman* journal, where simplicity appeared in nearly every article and described most of his house designs. However, the descriptions and illustrations in the magazine were ideal conditions of simplicity - evidence to critique the theory but not the practice of architecture. I then turned to construction drawings of Craftsman homes to see how they were built in part with respect to the magazine depiction and also to see if the assemblies and details corresponded to Stickley's views on simplicity. As I discovered other

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<sup>65</sup> Michael Baxandall, *Painting and Experience in Fifteenth Century Italy: A Primer in the Social History of Pictorial Style* (New York: Oxford University Press, 1988).48-56.

<sup>66</sup> Michael Baxandall, *Patterns of Intention: On the Historical Explanation of Pictures* (New Haven, CT: Yale University Press, 1987). 32-35.



architects who frequently wrote about simplicity, I then studied their construction drawings or built work to see if there was reciprocity between theory and practice in their architecture. Each chapter includes various building types, such as the tall office building, school designs, and religious meetinghouses. The selection of the building type was based on what would best demonstrate the topic at hand, not necessarily on its function.

I selected the period of the study, 1820-1920, to span between two common associations of simplicity in American design. The 1820s was the “golden age” of Shaker design, the period when they produced the now iconic Shaker furniture.<sup>67</sup> The nineteen-teens was the end of the Arts & Crafts Movement in America. Often simplicity was associated with the virtues of living a simple life from these two groups. However, the architectural examples are not limited to a style, but the humbleness of the buildings tend to fall under vernacular and the Arts & Crafts categories in architectural history.

Even though the projects in the following dissertation are primarily in rural areas, with some exceptions, they are not all vernacular. Dell Upton and John Vlach question what defines vernacular, for instance “could vernacular exist in the city?

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<sup>67</sup> See Stephen Bove and Peter Richmond, *Selling Shaker: The Commodification of Shaker Design in the Twentieth Century* (Liverpool: Liverpool University Press, 2007); Mary Lyn Ray, "A Reappraisal of Shaker Furniture and Society," *Winterthur Portfolio* 8 (1973): 107-132.

Can it be buildings that were built from tradition or non-architects?"<sup>68</sup> They leave the question open-ended, to which I reply that rural builders work analogously to architects up to a point, but rural building conventions generally do not have the high cultural depth as those designed by professional architects. A clear example is covered in the next chapter, where rural builders used geometry to lay out houses based on a square, but professional architects could use more subtle geometries, such as those developed from a nine-square grid. Nonetheless, methods in vernacular architecture studies, such as measuring and field-noting the actual construction details and assemblies were crucial in interpreting the evidence used in this dissertation.

Studying simplicity in architecture is a vast field temporally and geographically. One could easily find the desire for simple architecture around the world, as many Americans found in England, Germany, and Japan.<sup>69</sup> In keeping with my argument that simplicity arises from what is familiar, I have limited the geographical boundaries of the study to the regions where I lived - the Mid-Atlantic and upper Midwest.<sup>70</sup> This is not to say that the northern United States was the only

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<sup>68</sup> Dell Upton and John Michael Vlach, *Common Places: Readings in American Vernacular Architecture* (Athens, GA: University of Georgia Press, 1986).

<sup>69</sup> To see relations amongst the various Arts & Crafts Movements in Europe and America, see Wendy Kaplan et al., *The Arts & Crafts Movement in Europe & America : Design for the Modern World* (New York, N.Y.: Thames & Hudson in association with the Los Angeles County Museum of Art, 2004).

<sup>70</sup> I lived in Ohio, Pennsylvania, Virginia, Wisconsin, and now Mississippi. I have quite a personal license plate collection.

region seeking simple architecture. I believe the South and West are grossly understudied in architecture scholarship and one can find evidence of simple architecture ranging from the Moravians in North Carolina in the eighteenth century to Irving Gill in California in the twentieth century.<sup>71</sup> While I currently live in the South and travelled to the West, their interpretations on simplicity are still unclear to me, particularly the South's understanding of republican simplicity or industrial development during California's building boom. Therefore, my comfort in discussing the familiar alludes to Ralph Waldo Emerson: "I embrace the common, I explore and sit at the feet of the familiar, the low. Man is surprised to find that things near are not less beautiful and wondrous than things remote."<sup>72</sup>

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<sup>71</sup> For an account of simplicity in California architecture, see Robert Winter, ed., *Toward a Simpler Way of Life: The Arts and Crafts Architects of California*, ed. Robert Winter (Berkeley, CA: University of California Press, 1997). On Irving Gill, see Thomas S. Hines, *Irving Gill and the Architecture of Reform: A Study in Modernist Architectural Culture* (New York: Monacelli Press, 2000). On the Moravians, see William J. Murtagh, *Moravian Architecture and Town Planning: Bethlehem, Pennsylvania, and Other Eighteenth Century Settlements* (Chapel Hill: University of North Carolina Press, 1967).

<sup>72</sup> Ralph Waldo Emerson, "The American Scholar," in *Nature and Selected Essays*, ed. Lazer Ziff, 83-105 (New York: Penguin Books, 2003). 102.

## CHAPTER 2: ECONOMY

“Before we can adorn our houses with beautiful objects the walls must be stripped, and our lives must be stripped, and beautiful housekeeping and beautiful living be laid for a foundation...” Henry David Thoreau, from “Economy” in *Walden*, 1854

In *Oeconomicus*, Xenophon chronicled a discussion in which Ischomachus described his house to Socrates. “[My house] is not decked with ornaments and fretted ceilings, Socrates; but the rooms were built expressly with a view to forming the most apt receptacles for whatever was intended to be put in them, so that the very look of them proclaimed what suited each particular chamber best.”<sup>73</sup> Economy for the ancient Greek house meant proper placement of furnishings, including clothing and utensils, for convenience. Rooms were arranged to particular activities within the house. Spaces and artifacts were separated between everyday use and special occasions while recognizing both are necessary.

The etymological origin of “economy” is a compound of two ancient Greek words - *oikos* and *nomos*. *Oikos* referred to the Greek household, which in ancient Greece pertained to the relations between the family and the activities of the household ranging from daily domestic activities to festivals in the Greek polis. This meant that planning the proper relations between people and artifacts for the *oikos*

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<sup>73</sup> Xenophon, *Oeconomicus*, trans. H. G. Dakyns (Macmillan and Co., 1897). Book IX.

had to be considered from the scale of a room to the scale of the city. *Nomos* meant law as defined by human customs and manners. Economy, by its ancient Greek definition, was the law and conventions of activity for the household. Economy was not merely finances but proper allocation of spaces and tools for domestic activity. Greek economy is equivalent with the relation of functions between the rooms and the artifacts.

Aristotle gives a definition of the beautiful in *Metaphysics* and *Poetics*, which relates back to simple living. In *Metaphysics*, Aristotle lists three criteria for beauty: order, symmetry, and definiteness.<sup>74</sup> Definiteness refers to being precise and place within limits. Taken together, these three terms consider a beautiful home in which has a hierarchy, symmetry (a relation of parts which in turn perform together as a purposeful whole), and there is a limit amongst the parts in that each performs with certain roles.

Aristotle's definition of beauty in *Poetics* connected beauty with the structure of the plot. The beautiful plot is one that has a unified action - all the events are part of one over-arching action rather than the focus of one individual as a unified person. One thing leads to the next thing, rather than a series of events placed side-by-side

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<sup>74</sup> Aristotle, *Metaphysics*. Chapter 3.

but have no causal relationship.<sup>75</sup> This discursion into ancient Greek philosophy may seem out of context for nineteenth century American architecture, but it goes right to the heart of simple economy as the planning of relations between people and spaces.

Typically when we think of architecture and economy we tend to associate economy with inexpensive building materials or quick assemblies. For example, when selecting a steel beam or column there is a chart with all the standard wide-flanges available and every so often one is printed in bold indicating the “economical” selection - the most inexpensive to satisfy the bearing capacity - even if it is significantly oversized. Or perhaps the architect selects a faux stone veneer made out of concrete panels because it is a cheaper material than stone and the installer can attach it to a wall faster than a mason laying up stones one at a time, row by row. Economy considers cost and savings certainly, but its meaning and its relationship to simplicity in American architecture has origins in the ancient Greek usage of the word.

In nineteenth century America, Horatio Greenough used the Greeks to illustrate his relationship between economy and simplicity. Greenough, often touted

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<sup>75</sup> Aristotle, *Poetics*. 1450b 25 - 1451a. David Leatherbarrow also brought this idea to my attention, see David Leatherbarrow, *The Roots of Architectural Invention: Site, Enclosure, Materials* (Cambridge: Cambridge University Press, 1993). 104-105.

for his functionalist views in twentieth century historiography.<sup>76</sup> Writing in “Aesthetics at Washington” (1851), he famously stated, “The men who have reduced locomotion to its simplest elements, the trotting wagon and the yacht *America*, are nearer to Athens at this moment than they who would bend the Greek temple to every use. I contend for Greek principles, not Greek things.”<sup>77</sup> Greenough argued, architects should design to the building’s purpose then reduce the design down to its essential elements. The process of reduction simplified the design toward the principles exemplified by the Greeks, particularly economy. However, Greenough was purely a functionalist thinker, recognizing that simplicity dealt with an idea akin to Aristotle’s definiteness. “Far be it from me to pretend that the style pointed out by our mechanics is what is sometimes miscalled an economical, a cheap style. No! ... Its simplicity is not the simplicity of emptiness or of poverty; its simplicity is that of justness...”<sup>78</sup> Justness, like definitiveness, concerns a precision regarding the relation of parts to a performing whole. Even Greenough recognized economy and cost were

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<sup>76</sup> There are two notable essays connect Greenough to modernism. One is the introduction to *Form and Function: Remarks on Art* by Erle Loran which placed Greenough in the context of functionalism. Another essay placed Greenough in the context of American organicism in architecture, see Donald Drew Egbert, "The Idea of Organic Expression in Architecture," in *Evolutionary Thought in America*, 336-396 (Hamden, CT: Archon Books, 1968). For the connection between Greenough and Transcendentalism, see Charles Metzger, *Emerson and Greenough: Transcendental Pioneers of an American Esthetic* (Berkeley, CA: University of California Press, 1954).

<sup>77</sup> Horatio Greenough, "Aesthetics at Washington," in *Form and Function: Remarks on Art*, ed. Harold A. Small, 1-38 (Berkeley, CA: University of California Press, 1947). 22.

<sup>78</sup> Horatio Greenough, "Structure and Organization," in *Form and Function: Remarks on Art*, ed. Harold A. Small, 113-129 (Berkeley, CA: University of California Press, 1947). 128.

not interchangeable terms, and that a more insightful understanding of economy concerned relations to an order rather than expense.

Greenough was not entirely celebrated by nineteenth century critics; Thoreau called him “a sentimental reformer in architecture” because “he began at the cornice, not the foundation.”<sup>79</sup> What then is the significance of laying out the foundation? Thoreau placed beautiful housekeeping and beautiful living as related aspects of life as the foundation for the home. Just as he saw putting order to one’s life, the purpose of the “Economy” chapter in *Walden*, it had to be beautiful as well as functional.

Greenough’s ship analogy had an affinity with later interpretations of Greek economy in terms of purpose and function. Edward Carpenter, who was frequently published in early issues of Gustav Stickley’s *The Craftsman*, observed that order came out of the relations between objects and natural phenomena. “What, by common consent, is more graceful than a ship – the sails, the spars, the rigging, the lines of the hull? Yet go on board and you will scarcely find one thing placed there for adornment. An imperious necessity rules everything; this rope could have no other place than it has, nor could be less thick or thicker than it is; and it is, in fact,

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<sup>79</sup> Thoreau, *Walden* (New York: Library of America, 1985). 89. See also William J. Griffin, "Thoreau's Reactions to Horatio Greenough," *New England Quarterly* 30, no. 4 (December 1957): 508-512. Thoreau made this critique without reading Greenough’s essays. Instead this impression was made after a conversation with Ralph Waldo Emerson in which Emerson likely shared one of Greenough’s letters. According to Emerson, Thoreau recognized the value of Greenough’s essays regarding American architecture once he read them.



this necessity which makes the ship beautiful. Everything in it *has relation* – has relation to the winds and waves, or to something else on board, and is there for purposes beyond its own existence.”<sup>80</sup> In economical arrangements, even natural forces are brought into relation with artifacts. Carpenter made the full realization of Greek economy, everything from artifacts, to people, to the environment were brought into relation with each other as an ensemble.

I shall consider economy from two different approaches to arranging floorplans as an ensemble. First there was a tradition in farmhouses to design plans that easily accommodated additions. These plans were found in agricultural journals because farmers would continually add to their houses as their families and wealth grew over generations. The first version of simple economy was that the old house could be incorporated into future expansions without having to demolish and rebuild every time the family grew larger and prosperous. The architectural means to add additional spaces to existing structures used ancient geometric construction principles to make relations between spaces.

Second, the simplicity in flexible planning meant a room could handle multiple functions. These arrangements are evident in Quaker meetinghouses, serving as places of worship and community meetings, as well as later residential architecture, namely Gustav Stickley’s Craftsman houses anticipating the open floor

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<sup>80</sup> Edward Carpenter, "The Simplification of Life: Extracts from an Essay in "England's Ideal", " *The Craftsman*, December 1905: 405-413. 410. Italics original.

plan. The second version of simple economy was to have one room be adaptable to serve multiple uses but maintain distinctive spaces for activities.

### **Economical Expansion through Geometry**

Historians have thoroughly researched nineteenth century American society represented through the hierarchy of rooms. Parlors are given considerable attention as they appear with popularity in nineteenth century houses only to be rejected by the early twentieth in shelter magazines.<sup>81</sup> Kitchens received considerable attention, too, due to their active function in the house and indicative of women's roles in society.<sup>82</sup> Halls, living rooms, and dining rooms are given less attention but the nineteenth century did have particular rituals in which one was received in the hall and how dinners were served in middle class gatherings.<sup>83</sup>

In defining hierarchical space, the economical plan anticipated future additional rooms for the house. Even in Europe, Gottfried Semper's "Four Elements of Architecture" compared a lord's house with his greatness arising from accumulation rather than inheritance of authority:

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<sup>81</sup> Sally McMurry, "City Parlor, Country Sitting Room: Rural Vernacular Design and the American Parlor, 1840-1900," *Winterthur Portfolio* 20, no. 4 (1985): 261-80.

<sup>82</sup> Handlin, Op. cit.; Sally McMurry, *Families and Farmhouses in Nineteenth-Century America: Vernacular Design and Social Change* (Knoxville, TN: University of Tennessee Press, 1997); Wright, *Moralism and the Model Home*. Op.cit.

<sup>83</sup> Ames, Op.cit.

The greatness of the native lord slowly increased, and his house grew with his growing needs, partly as attached enclosures, partly and grandly through organic development from inside.

The greatness of the satraps and vassals, however, was the gift of a favor and arose suddenly. Their house was fully complete from the outset, and was a replica of the camp at a smaller scale. Additions were possible only with external connections of similar complete units.

The former was greatness in development and cultivation from the simple and the small, the latter was the child of crippled greatness.<sup>84</sup>

Semper's version of the simple life began without grandeur and gained recognition through gradual personal accomplishments rather than inheritance. The architectural parallel was to start small and gradually build the house, all the time the house is just large enough to manage at any given moment. This way, the house could expand to as large as the owner could accomplish through personal ability. The inherited house had no room to grow and likely be poorly managed by an owner not comprehending what he already possessed. The appeal of designing the home anticipating growth through self-accomplishment not only appealed to Semper, but was also part of architectural practice in rural America and a practice that was desirable to continue.

In mid-nineteenth century America, however, there was no nobility and many farmers cultivated their lands from the wilderness. Farms grew over generations,

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<sup>84</sup> Gottfried Semper, *Die Vier Elemente der Baukunst* (Braunschweig: F. Vieweg, 1851). 72-73. "Die Größe des eingeborenen Herrn nimmt langsam zu, und mit dem wachsenden Bedürfniss wächst sein Haus, theils durch angefügte Raumabschlüsse, theils und vornehmlich durch organische Entwicklung von Innen. ¶ Die Größe des Satrapen und Lehnsmannes dagegen ist ein Geschenk der Gnade und entsteht plötzlich. Sein Haus ist von vornherein für seinen hohen Stand fertig gemacht, und eine Wiederholung des Hoflagers im kleineren Maaßstabe [sic]. Vergrößerungen sind nur durch äußere Verbindungen einander ähnlicher Einheiten möglich. ¶ Wie dort die Größe eine Entwicklung und Weiterbildung des Einfachen und Kleinen ist, so ist hier das Kleine eine Verkrüppelung des Großen."

starting from claims to the land through purchases and land clearing. A series of illustrations from 1849 depicted the growth of a farmstead from a log cabin in a small clearing to a two-story house with fields cleared to the horizon [Fig. 2.1].<sup>85</sup> The third scene, supposedly taking place ten years after the initial clearing, depicts a large addition to the original cabin, for the pioneer “had too much reverence for his primitive dwelling to remove it.”<sup>86</sup> Even with the additions and growth of the family and prosperity, the pioneer did not tear down the original house.

These idealized depictions illustrated a pattern not only of refinement, but architectural growth and appropriation of existing space. Even in the last scene, supposedly taking place 45 years after the original clearing, vestiges of the original farm are present. Natural elements such as the tree and road help triangulate the house as permanently situated on the land, yet clearly changing its size and appearance over decades. While the new house is larger than any previous incarnation, the massing corresponds to the last scene, with the primary house as a large block with an appendage built over the foundations of the original cabin, or possibly concealed behind the wood cladding.

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<sup>85</sup> Bushman, 384-385.

<sup>86</sup> Orasmus Turner, *Pioneer History of the Holland Purchase: Embracing Some Account of the Ancient Remains* (Buffalo, NY: Jewett, Thomas & Co.: George H. Derby & Co., 1849). 565.



**Figure 2.1** Orasmus Turner, (clockwise from top left) Farmhouse at first clearing, following summer, 10 years later, 45 years later from *Pioneer History of the Holland Purchase* (1849). Library of Congress.

Rural farmers who inherited their land and houses periodically improved their houses over time. Henry Glassie analyzed a number of farmhouses in Louisa County, Virginia regarding their geometric order and expansion. Glassie discovered that the square established the basic area module of the house with a number of derivative geometric constructions. Without explicitly acknowledging it, he uncovered a series of harmonic proportions: e.g. 1:2, 2:3, and 3:4.<sup>87</sup> Many of these houses had additions derived from geometric construction by taking diagonals from

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<sup>87</sup> Henry Glassie, *Folk Housing Middle Virginia: A Structural Analysis of Historic Artifacts* (Knoxville, TN: University of Tennessee Press, 1976). 22-25. Oddly, his system for describing areas became algebraic through addition and subtraction from a base number. His complex formulas are nothing more than the geometric ratios, e.g.  $S-2.5u$ , where  $S$  is the overall square length and  $u$  is  $1/3$  of  $S$  is the same as 1:2.

squares and rectangles when laying out a building's footprint. The advantage of this basic means of laying out the foundation of the house enabled the house to expand in size according to the dimensions defined by the initial incarnation of the house.

Solon Robinson, a farmer and pioneer born in Connecticut and settled in Indiana, sent descriptions to *American Agriculturist* for economical farmhouses arranged so that the building could grow with the size of the family as well as with their income [Fig. 2.2]. His first plan appeared in 1846 and assumed the house was nothing more than an enclosed lean-to shelter. Once money and time permitted, the family added an enclosed kitchen and the lean-to became the wash shed and summer kitchen.<sup>88</sup> This growth continued with the addition of bedrooms, sitting room, upper stories and finally the parlor. The original rooms were never abandoned nor significantly altered, except with the relocation of a couple internal walls to expand the kitchen and shrink the bedrooms once more bedrooms were added upstairs. The farmhouse was not a static building in the sense that once it was built it never changed.

The geometric layout of the house had critical axis, which determined openings and the continuity of space. The very first space in the house, the original lean-to, was a square, the easiest shape to define because all sides are equal. When adding to the original lean-to and fireplace, Robinson increased the width of the new

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<sup>88</sup> Solon Robinson, "A Cheap Farm-House," *American Agriculturist* V, no. 11 (February 1846): 57-58.

kitchen by three feet in order to center the fireplace with the main massing of the house. The kitchen, the largest room in the house, had a ratio of 2:3, a rather easy rectangle to define because one divides the space in half for a central line and then constructs a 45° angle from the base square to its side extension. On Robinson's plan, the base 16x16 foot square within the kitchen determines the door location for bedroom 'h' and the partition separating rooms 'f' and 'e'. In the third addition, the parlor is the noble room and thus is a square within the new building footprint. The central axis of the house defines the parlor's position, although visually the stair wall interrupts the line as a spatial axis. Instead, the visual line is off-center to the left, defining a corridor all the way to the rear washroom. The perpendicular axis in the parlor defines the location of doors into the adjacent bedrooms; their jambs are on the line rather than their centers. Spatially the line connects the rooms but the dimensions of the bedrooms shift their spatial grid off of the parlor axis. All the bedrooms are 8x10 – a 4:5 ratio – which is still a common bedroom size today. The house's geometric construction consisted of common harmonic ratios, and while there were some attempts at spatial continuity they were usually made as a plan arrangement rather than spatial experience.

Robinson submitted another design about a year later to the *American Agriculturist* as an example of how the house could grow over time. The original mass of the house included the kitchen, hall, and sitting room. As a basic house, this accommodated the kitchen as the heart of the home, a place to entertain or even

sleep if there was no second floor. The next addition would include the pantry, bedroom and parlor. This growth is hinted in the plan with a continuous wall line from hall to pantry. The addition is even more obvious in the elevation. Whenever Robinson proposed an addition, he generally covered it with a lean-to roof. This was a practical choice because it is the easiest roof to build and it always sheds the water away from the building without awkward valleys. It was necessary for the farmhouse to have simple massing and planning for the purposes of additions to allow for more varied and complex uses as the farm increased.<sup>89</sup>

Geometrically this plan derives from the golden ratio that is further divided into two similar rectangles. The kitchen preserved the golden ratio and the sitting room and the hall do not quite follow the precise proportion. Robinson may have decided that the partition between the hall and sitting had to shift slightly to accommodate the passage to the kitchen, which was the main space for the farmhouse. The addition to the house included a parlor and senior bedroom. The parlor was once again the square noble room with dimensions set by the 15-foot module driving the overall geometry. The bedroom was 12x15 feet, which is still a 4:5 ratio consistent with the previous house. This change in size allowed for a door from the kitchen to the pump room and other service spaces at the rear of the house. While there is spatial continuity through rooms - such as the sitting room, hall, and

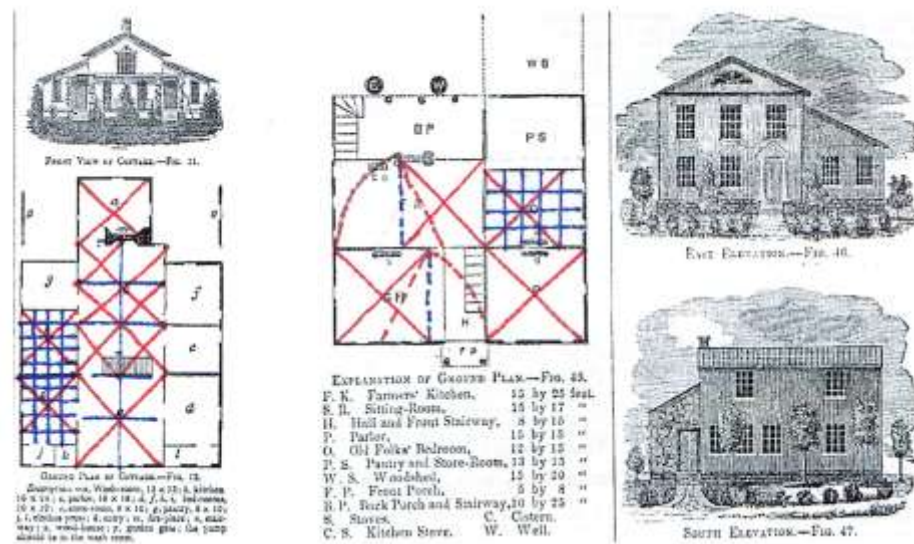
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<sup>89</sup> Solon Robinson, "A Cheap Farm-House," *American Agriculturist* VI, no. VII (July 1847): 216-218.



parlor – few construction lines have a relationship to the geometric construction of the house.

Furthermore, the hierarchy of space is lost on the elevation. While the parlor is the noble room in terms of function and shape, it appears as an appendage on the elevation under a shed roof. To have this appearance, it cannot align with the front wall of the house as shown in plan because the roof overhand would project past the massing of the main house. This means that the parlor would need to step back from the front wall and no longer be square.



**Figure 2.2** Solon Robinson, Cheap Farmhouses from *American Agriculturist*. Left: 1846, Right: 1847. Diagram overlays by author.

Robinson published his ideal farmhouses in agricultural journals with the intention of improving the economy of the Midwestern farm. These houses were arranged primarily around a kitchen because it was the center of farm life. It was in

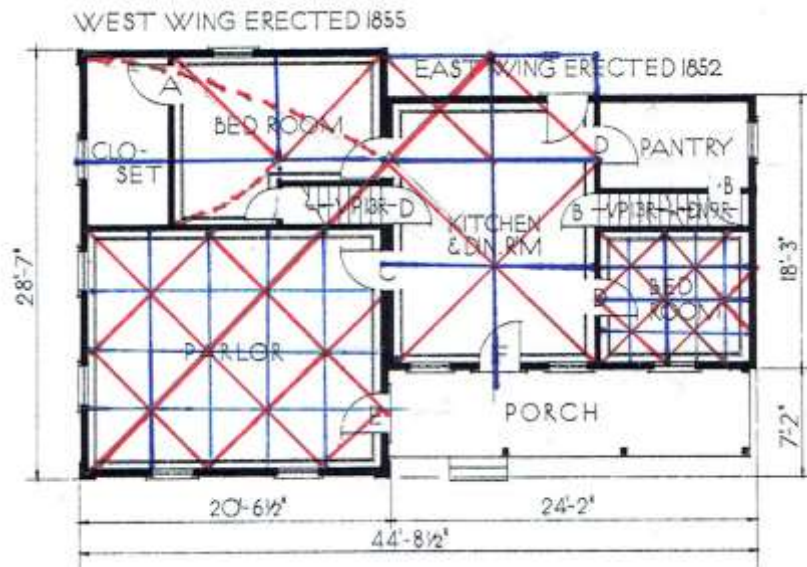
close proximity to the storage of produce and it was where the farmer's family and farmhands gathered for meals. As the farm prospered, parlors were appropriate additions to the house. Adding to the house not only had to show prosperity in wealth, but had to work as part of the overall arrangement of farm life. Did these ideal plans translate into actual farmhouses in the Midwest?

The Perkins farmhouse in DeKalb County, Illinois, was built in two phases [Fig. 2.3]. The kitchen (east) wing was built in 1852 and the Greek Revival (west) wing containing the parlor was built in 1855. The partition separating them is twice as thick as the exterior walls, suggesting that the two are separate structures. There are three openings in the wall, two for the first floor rooms and one for a stair that leads to the bedrooms in the west wing. There is a separate stair for the east wing bedrooms and no connection between the wings on the upper floor. Although the additional wing was not adjoined to the existing house as an enfilade arrangement, the layout of the plan suggests congruity in partitioning. The partitions supporting the two stairways, and the stairs, are in alignment, reflected on either side of the kitchen. The stairs in the east wing further establish partitions not only between the bedroom and pantry but the partition line of the kitchen, just as the wall to the west defined the stair placement for the west wing.<sup>90</sup>

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<sup>90</sup> Perkins Farmhouse near Genoa, Illinois, DeKalb County. Library of Congress, Prints & Photographs Division, HABS, "HABS IL-26-30" Sheet 1.

Geometrically the original house had a 3:4 ratio. The kitchen is the central space of the house and has the ratio 2:3, again consistent with Robinson's first design. Lines defining the squares embedded in the 2:3 rectangle locate the door to the addition as well as the bedroom in the addition and the pantry in the original house. The new addition has the ratio  $1:\sqrt{2}$ , which is constructed by taking the diagonal of a square as the length of the rectangle. The square embedded in the addition encapsulates the parlor and stair, leaving the remaining space as the inhabitable part of the bedroom. The parlor, now the noble room, is a 4:5 rectangle, a close proximity to the square but shy in order to give space to the new stair. The grid embedded with the 4:5 rectangle locates the window and door openings for the parlor, but does not connect to the grids in the original house. The centerline of the parlor is slightly off from the front exterior wall of the original house.



**Figure 2.3** J. D. Rehder, del., Perkins House, HABS Drawing #36-30. Diagram overlay by author.

The Perkins farmhouse demonstrated a couple of simple features. One is in the efficiency of elements, such as walls and stairs, to partition space. This maximized habitable space, at least on the ground floor, and minimized partitioning of spaces. The second feature it addressed was allowance for growth over time. The west addition appears to be part of the overall composition in the plan despite a three-year gap in construction. The hierarchy of rooms, 1:1 for the parlor, 2:3 for the kitchen, and 4:5 for the bedrooms was a common characteristic in ideal farmhouse plans.

At the end of the nineteenth century, New York City architect S. B. Reed provided plans for house that anticipated additions in rural and suburban areas. Reed's first design was "a simple cottage, with sufficient accommodations for beginners in housekeeping with limited means."<sup>91</sup> The footprint was about 15x18 feet divided into three rooms: bedroom, living room, and pantry. As a plan it was tight, only three rooms, and the obvious omission is the kitchen.

How could a house anticipating a future dining room nearly the size of the original structure have no kitchen? Reed did not explain in this particular design, but in the descriptions of other houses he envisioned the dining room and kitchen to serve the same role. "The Kitchen is intended as the Living-room, where the family, maintaining the simplicity of cottage life, spend much of their in-door time, sharing

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<sup>91</sup> S. B. Reed, *House-Plans for Everybody* (New York: Orange Judd Co., 1898). 9.

domestic cares and comforts.”<sup>92</sup> The plan dashed in the anticipated addition to include a parlor, dining room, and entry hall, which he showed in Design VIII. In this design, the kitchen label replaces the old living room, which is no longer labeled on the drawing [Fig. 2.4].

Using Design VIII as the complete house, there are vestiges in the plan to typical farmhouse geometries. The kitchen ratio is 2:3, common most of the other houses noted so far. The dining room now occupies the center of the plan and has the ratio 1:2. The parlor is the most unusual ratio at 6:7. It is not quite a square but it can be broken down into smaller shapes congruent to the main spaces of the house. By extending the centerline of the dining room into the parlor and the cross-axis of the parlor defines two 2:3 rectangles adjacent to the hall partition. Mirroring this proportion on the other side of the parlor leaves two squares in the middle section (a 1:2 rectangle) centered on the window bay and fireplace. Drawing lines connecting the bay mullions with the edges demonstrates that these two squares were conceived as nine-square geometries rather than the four-square of the previous farmhouses. This sophisticated geometry suggests a greater mastery of spatial planning under the direction of a trained architect and is consistent with Reed’s geometric compositions for other houses, as I will show momentarily.

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<sup>92</sup> Ibid. 23.

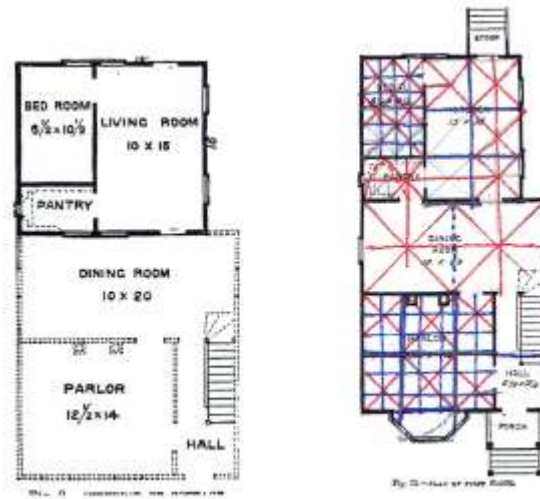
Reed's Design XXI was a bracketed American farmhouse, an architect's interpretation of the house typology previously explored in the Midwest now part of New York City suburban house designs. Reed also envisioned this house to grow over time by laying out the central section first and indicating where future additions occurred. The complete plan with two wings on either side of the central portion containing the kitchen and hall. The foundation plan shows the sequencing best by excavating under the central portion of the house, the first phase to be built. As fortune permitted, the library and parlor wing and the laundry/bedroom wing could be added later without excavation [Fig. 2.5].<sup>93</sup>

The geometric construction of these plans is more sophisticated than the rural farmhouses. While the base module of the plan is a square, Reed employed a nine-square grid rather than the four-square grid common to the farmhouses. The right one-third of the nine-square consists of the hall and rear passage. The remaining two-thirds defines a 2:3 rectangle for the kitchen, part of the original house. The parlor has a 2:5 ratio, nearly a square and corresponds to the Perkins House. The grid embedded within the room defines the location of the fireplace and openings. The line to the right of the fireplace carries across the house to the bedroom, which is also a 4:5 rectangle and shares a grid-line from the parlor which also establishes opening locations through the front part of the house. Even though this grid does

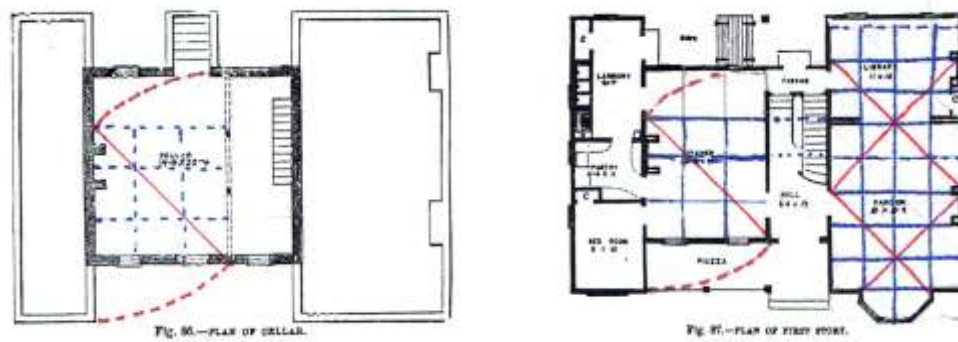
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<sup>93</sup> Ibid. 127. "Should it be desirable, the central portion of this could be built first, and would be found quite sufficient as the dwelling house for a small family, and the remainder added afterwards as required."

not tie to the original nine-square, the addition grids established a relationship across the house spatially. This was an added complexity to the grids laid out by Robinson and Midwest farmers who drew lines across the plan but interrupted them with walls and stairs. Reed's plan is not quite an open plan, but it anticipated how geometry related to spatial experience and functioned as an economical plan.



**Figure 2.4** S. B. Reed, Design I (left) and Design VIII (right) from *House-Plans for Everybody* (1898). Diagram overlay by author.



**Figure 2.5** S. B. Reed, Design XXI from *House-Plans for Everybody* (1898). Diagram overlay by author.

### **One Room, Several Uses**

Even in the late nineteenth century, as Reed's plans demonstrated, the convention for adding spaces to an existing building was through commensurate geometric constructions which showed a hierarchical relationship between purpose and room proportions. However, planning the plot for one space that served multiple functions was another simple means to relate people and spaces. These spaces were often community centers, such as the meetinghouse or the one-room school. Over the course of the nineteenth century these communal functions found their way into domestic architecture and gave rise to the economical open floorplan.

The Quaker meetinghouse exemplified the simple multi-use space. From its earliest appearance in America at the end of the late seventeenth century to the early part of the nineteenth, it housed religious services and secular community business. Both genders met in the same room for service and after worship they separated to conduct their affairs within the community, necessitating a division within the meeting hall.<sup>94</sup> Others had multiple halls to accommodate regional meetings. In meetinghouses for regional yearly meetings, the Quakers often built two adjoining halls - a small one for weekly worship and a large one to accommodate Friends from across the region. In the Caln Meetinghouse (1726) near Downingtown there is little distinction that is apparent on the exterior between the two hall sizes, not even a

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<sup>94</sup> The meetinghouse in Radnor, Pennsylvania is the lone extant example in Southeast Pennsylvania where an addition was built to the side of the main meeting hall.



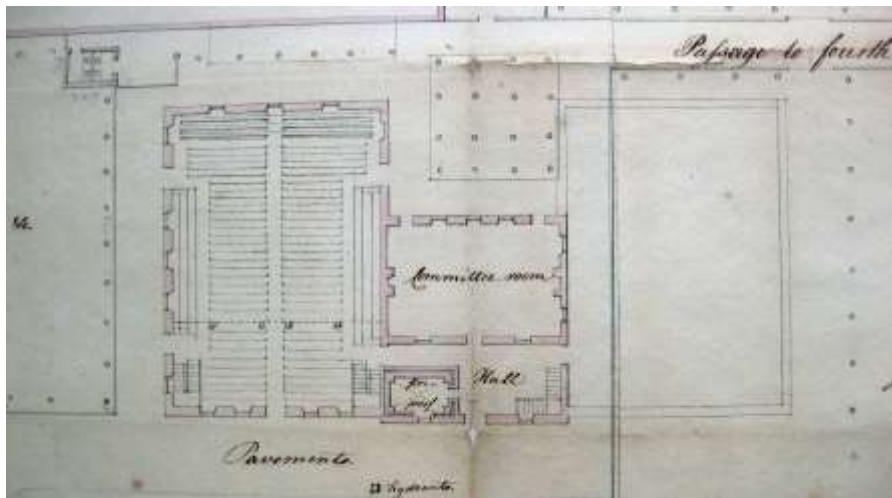
slight projection or indentation in the elevation [Fig. 2.6]. Inside, however, a thick wood partition with a door separates the monthly meeting hall from the weekly hall.<sup>95</sup> When there was both a large congregation and large yearly meetings, such as at the Arch Street Meetinghouse in Philadelphia, the plans anticipated additional halls when finances were available. The plan of Arch Street from 1803 showed the east meeting hall and center section for the entry, fireproof vault, and committee room [Fig 2.7]. The foundation for the west hall, a mirror of the east, was drawn on the plan but not built until 1811. In these versions, the meetinghouse anticipated and accommodated additions like the Midwest farmhouses of the nineteenth century. But these plans were for the meetings of large regions where the larger congregation could pool money to build a larger space. Rural meetinghouses with small congregations developed a unique approach to separate simultaneous functions within a large space.

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<sup>95</sup> The meetinghouse in Caln, Pennsylvania is one example. Many Quaker meetinghouses dating from the eighteenth to nineteenth centuries had operable partitions, not only in Pennsylvania but also out west in Iowa. The Historic American Building Survey [HABS] program sponsored an extensive study of extant Quaker Meetinghouses in the Philadelphia area. The reports, including drawings and photographs, are accessible on their website: <http://www.loc.gov/pictures/collection/hh/>



**Figure 2.6** Caln Meetinghouse near Downingtown, PA (1726); photo by author.



**Figure 2.7** Owen Biddle, Plan for Arch Street Meetinghouse in Philadelphia, PA (detail) (1803); Philadelphia Athenaeum.

In the mid-to late eighteenth century the interior of the small rural meetinghouse changed by adding a new partition. The partition consisted of a frame

for movable panels that were closed for business meetings and opened for worship services.<sup>96</sup> The Caln weekly meeting hall has this partition dividing the longer length of the room into two. The partition at the nearby Downingtown meetinghouse (1807) is unusual in that it divides the front and back of the hall rather than divide the two sides.<sup>97</sup>

The partition continued as a standard for arranging meetinghouses in the western Quaker settlements. In the towns of West Branch and Whittier, Iowa, both meetinghouses had a wooden partition separating the left and right sides of the hall. The use of the space was flexible, but its arrangement was based on an operable stationary partition. While the exterior was unassuming, the interior arrangement and partitioning added complexity to the space but provided greater flexibility in its use for secular and sacred meetings [Fig. 2.8].

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<sup>96</sup> For the social factors behind the development of the partition, and general observations of the vernacular parallels to 18<sup>th</sup> century Quaker meetinghouses, see Catherine C. Lavoie, "Quaker Beliefs and Practices and the Eighteenth Century Development of the Meeting House," in *Quaker Aesthetics: Reflections on a Quaker Ethic in American Design and Consumption*, ed. Emma Jones Lapsansky and Anne A. Verplanck, 156-187 (Philadelphia: University of Pennsylvania Press, 2003). To operate the heavy partitions, the Quakers built a pulley system concealed in the attic with the ropes and weights concealed behind the partition dividers, operating like a window. The concealed mechanism gave the impression of a paneled wall.

<sup>97</sup> Virginia B. Price, "Downingtown Friends Meeting House" Pub. No. PA-6653 (Washington, DC: Historical American Buildings Survey, 1999). 1.



**Figure 2.8** Downingtown Meetinghouse, PA (1807) (above); West Branch Meetinghouse, IA (1857) (bottom); photos by author.

The Quaker schoolhouse in West Branch, Iowa was a standard arrangement that can be compared to a variety of schoolhouse designs from pattern books and circulars published in the nineteenth century. Like the meetinghouse, the schoolhouse was another one-room building that could be used for multiple activities. The typical schoolhouse procession was entry into a vestibule where students could hang their coats, stow their lunches, and wash their hands. They passed through a doorway into the classroom proper, which had large area for their desks and an elevated platform at the end for the teacher [Fig. 2.9]. The platform also became a stage for the annual holiday plays. Desks vary in size for small children to adolescents. Activities had to be coordinated between the different age levels. The daily schedule was often written on the chalkboard and activities were planned so the various ages were constantly engaged in learning even though knowledge levels were different. Usually young children were involved in a discussion or activity while older students read to prepare for their discussion, then the roles switched.

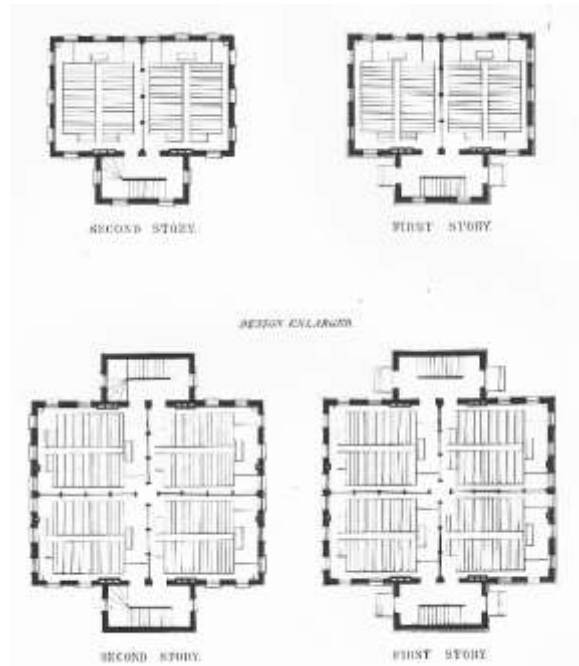


**Figure 2.9** West Branch Schoolhouse, West Branch, IA, (1853); photo by author.

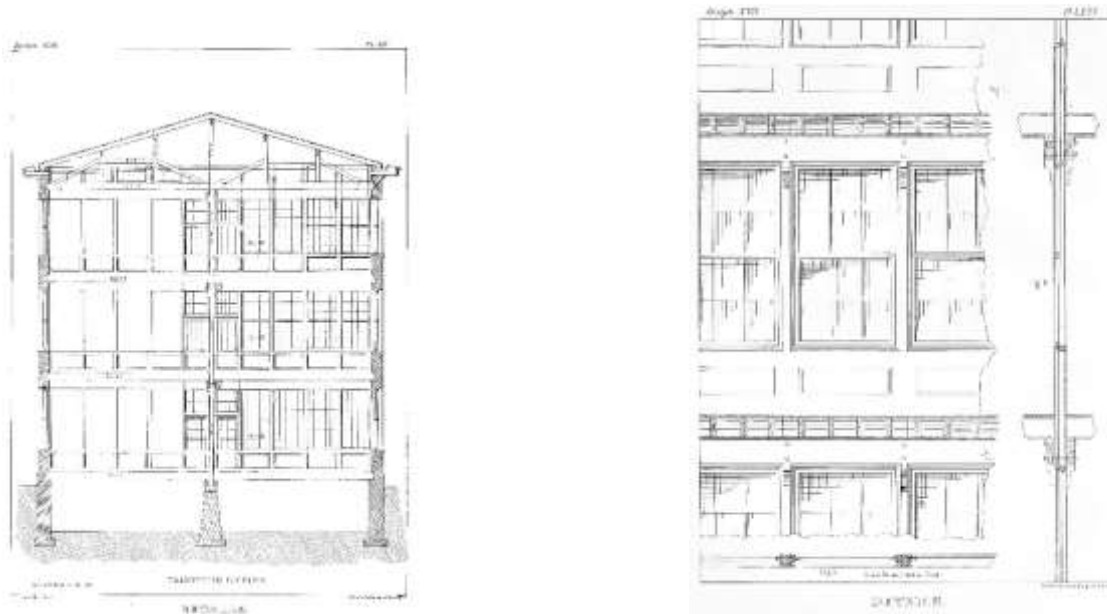
In Quaker Philadelphia the operable partition of the Quaker meetinghouse appeared in the secular school plan. Samuel Sloan's *The Model Architect* (1852) featured a schoolhouse design for the Philadelphia Board of Controllers of the Public Schools in 1850 with operable partitions. Sloan offered two plans – a two classroom and four classroom arrangement per floor [Fig. 2.10]. There was a window partition separating each classroom [Fig. 2.11]. Sloan explained the mechanism: “The sash are to be one inch and a half thick, and hung to balance each other, with patent cord passing over one pair of axle pullies to each window, so that as the lower sash descends the upper one will ascend. The wainscoting will receive the lower sash and the upper will pass into the wainscoting above.”<sup>98</sup> Like the Quaker meetinghouse partition, these partitions allowed adaptations to classroom configurations; the entire floor could be one classroom or broken into smaller rooms for small classes or smaller group activities. The flexible plan allowed for expansion but it overlooked one important feature of the classroom - the glass walls and numerous exterior windows meant there was no place for a chalkboard! Despite an obvious oversight, he claimed the City of Philadelphia built numerous schools from his scheme that were no doubt familiar in their Quaker-like arrangements.

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<sup>98</sup> Samuel Sloan, *The Model Architect*, Vol. I, II vols. (Philadelphia: E. S. Jones, 1852). 75.



**Figure 2.10** Samuel Sloan, “School House Plans” from *The Model Architect* Vol. I (1852).



**Figure 2.11** Samuel Sloan, “School House Section” and “Details” from *The Model Architect* Vols. I & II (1852).

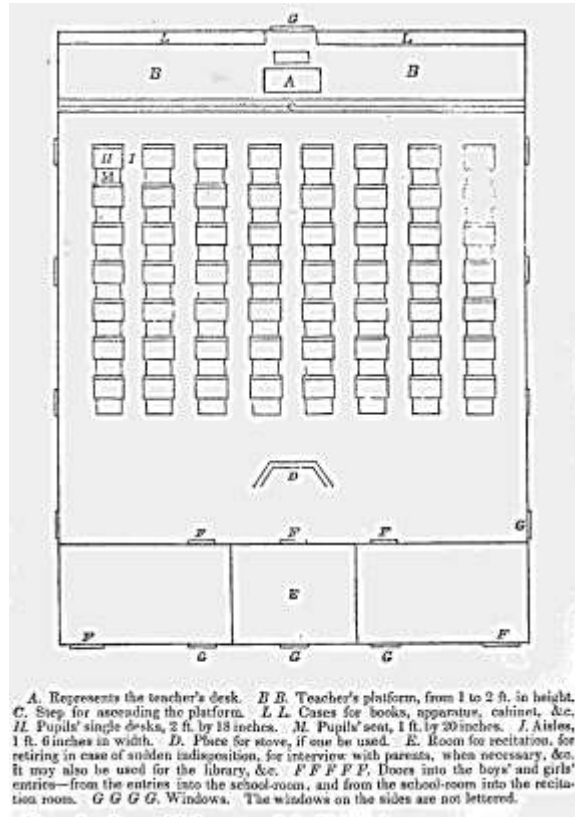
However, rural Quakers out west did not incorporate the operable partition found in their meetinghouses for their schools. Instead, the Quaker school followed the pattern of many rural schoolhouse built across the country following various standards established by pattern books and school circulars. One of the most cited schoolhouse pattern books from the 19<sup>th</sup> century was by Henry Barnard, an educational reformer and colleague of Horace Mann. Barnard's first design was an illustration of Mann's 1838 arrangement for a school [Fig. 2.12].<sup>99</sup> The diagram showed the basic organization for schools that would later be adapted for school architecture across the country. The front portion of the school has three rooms consisting of a separate entry for boys and girls with the middle room, accessible only from the classroom, as a recitation space. There is a stove behind the student desks so that the exhaust pipe full of hot air could run the length of the classroom and exhaust through the roof above the teacher's desk to warm the entire classroom. The teacher's desk sits on top of a podium between 1 to 2 feet above the main floor. Cases behind the teacher are for books and teaching aides. The description does not indicate the location of the chalkboard, so it is unclear if they are above the cases or along the side walls. The diagram indicates all the necessary architectural parts to

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<sup>99</sup> Henry Barnard, *School Architecture; or, Contributions to the Improvement of Schoolhouses in the United States*, 3rd Edition (New York: A. S. Barnes & Co., 1849). 64-65.



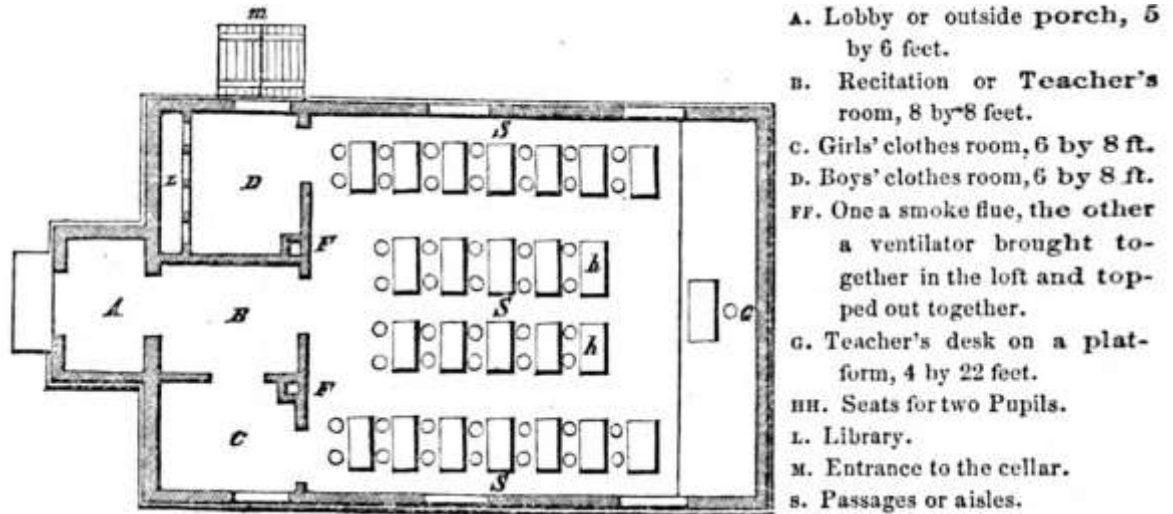
the school - the number of rooms, location of desks, entries, and windows. Mann and Barnard set the standard for the economical arrangement of the schoolhouse.



**Figure 2.12** Horace Mann, School-House Arrangement by Mr. Mann from *School Architecture* (1838).

Regionally based pattern books varied from Horace Mann's plan although the general scheme persisted. In an 1855 book on school designs for Pennsylvania by Thomas Burrowes, plans of rural schools continued the three-part spatial arrangement. Design 3 had the girls and boys coat rooms separated by a recitation space and Burrowes added a lobby to provide a covered area before entering the

building. A striking difference in the arrangement was that the recitation room served as a second vestibule. The girls turned left to enter their coatroom before entering the classroom and the boys entered the classroom before going to their coatroom. The boys' coatroom also served as the school library [Fig. 2.13].<sup>100</sup>



**Figure 2.13** Thomas Burrowes, Design 3 from *Pennsylvania School Architecture*. (1855)

This modification to the front of the plan provided a number of advantages further economized the simplicity of the schoolhouse. First, the entry line from the front door to the classroom was continuous. If the public was to use the classroom for meetings or activities, they could proceed directly to the main room. Second, by

<sup>100</sup> Thomas H. Burrowes, *Pennsylvania School Architecture: A Manual of Directions and Plans for Grading, Locating, Constructing, Heating, Ventilating and Furnishing Common School Houses* (Harrisburg, PA: A. Boyd Hamilton, 1855). 37-39.

connecting the recitation space with the entry, small group sessions were conducted without unlocking the main classroom. Placing the library inside the boys' coatroom was also for security so public meeting could be held in the main classroom while the books were locked away and secured. The coatroom corners had chases for the stove flue and vent stack. The heating for the school was still located between the recitation and main classroom, but in this scheme the furnace was in the basement. The pipes adjoined above the classroom door and exhausted out of a single chimney centered on the axis of the building.

These slight deviations from the standard allowed the school to have a larger role in the community. Direct access to the classroom and the possibility to lock various doors enabled the school to serve multiple community functions from school plays to town meetings. The location of the stove exhaust vents allowed all habitable spaces to be heated in winter, regardless of the room being used and size of communal gathering. While there were a few ancillary rooms within the one-room school building, those partitions and access points allowed for multiple uses within a 23'x34' footprint, a 2:3 rectangle. The standard or schoolhouse arrangements were analogous to primary spaces in the farmhouse.

Little changed in the simple schoolhouse plan towards the late nineteenth century, although modifications were being made to the Mann's scheme to develop new standards. In 1882, the state of Wisconsin issued a circular to standardized schoolhouse designs to improve arrangement and air quality. Some designs in the

circular were already built as exemplars to design and others served as the basis for new schoolhouses.<sup>101</sup> Design number 3 from the circular is very similar to the plan of the Harrisburg school in Sauk County as well as to Horace Mann's 1838 scheme. The recitation area is at the front of the building in the plan and this area served as the library for the Harrisburg school. This school had a platform, which was unusual compared to extant schoolhouses in the area.<sup>102</sup> The arrangement of the one-room school, whether ideal or extant, developed a common pattern that reinforced its simplicity. The plan accommodated multiple uses, considered heating and light, followed a geometric construction consistent with rural buildings and spaces were proportionate to their use.

In the early twentieth century, Gustav Stickley criticized the quality of education taught in large schools. He preferred the standardized plan of the one-room school and published schoolhouse plans in his *Craftsman* journal in 1911. "It seems to me," he wrote, "that one point is in danger of being neglected, namely, that in the effort to perfect our present system of education up to the last degree of practical efficiency, we are apt to lose sight of the fact that too much system is a hindrance rather than an aid to natural growth and development and that here there is an abundance of education there is apt to be a paucity of real learning." The

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<sup>101</sup> W. C. Whitford, *Circular on Plans and Specifications for the County Districts, Villages, and Smaller Cities of Wisconsin* (Madison, WI: David Atwood, 1882). One of the exemplars was the Dodgeville High School built in 1881; it was torn down in the 1960s. Dodgeville is about 15 miles south of Frank Lloyd Wright's Taliesin.

<sup>102</sup> Other nearby schoolhouses I visited were the Akey school in Richland County, Floyd School in Iowa County, and Sun School in Dane County.

solution, according to Stickley, was to reflect on education practices at the “primitive” school, i.e. the one-room schoolhouse.<sup>103</sup>

Stickley presented a schoolhouse design comparable to nineteenth century rural schoolhouses in the July 1911 issue of *The Craftsman* [Fig. 2.14]. The footprint measured 37 feet long and 28.5 feet wide for the main classroom (roughly 3:4) with a 290-square foot workroom.<sup>104</sup> The arrangement had separate cloakrooms for boys and girls. There was also a formal entry with a door on axis with the center of the classroom and an aisle leading to the teacher’s desk. Like Burrowes’ design from 1855, the community had direct access to the classroom for school events. Unlike earlier school design recommendations, however, this one did not have a teacher’s platform. Similar to Horace Mann’s guidelines, books and teaching aides were stored in cases along the wall, however Stickley recognized the need for chalkboards at the front of the room so the cases served as window stools instead.

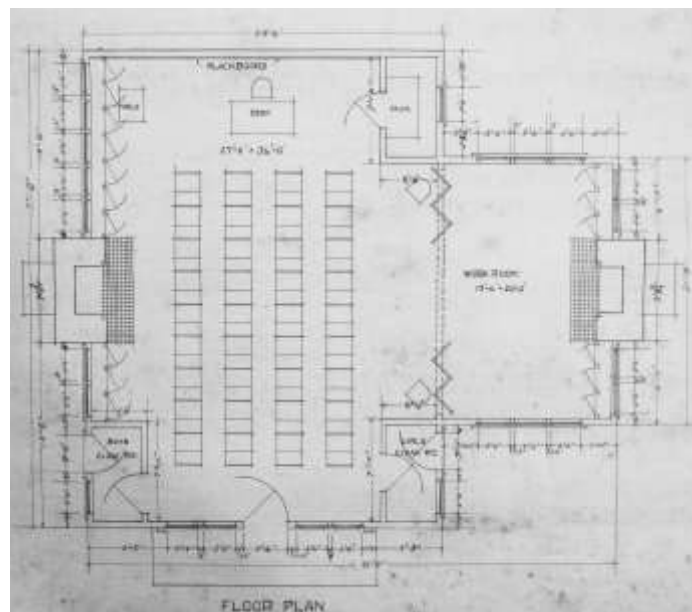
Stickley’s schoolhouse design combined a number of features between the standard one-room schoolhouse and his Craftsman houses. For instance, he maintained certain harmonic ratios when laying out the space and preserved the need for community functions within the school. However, many features in the

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<sup>103</sup> Gustav Stickley, "The Danger of Too Much System in Education, As Opposed to the Real Training that Comes from Direct Experience," *The Craftsman* 15, no. 4 (January 1909): 493-495. Quotation on 493. Primitive is in quotation marks as that was the word Stickley used to describe the one-room schoolhouse.

<sup>104</sup> The typical dimensions for a typical one-room schoolhouse approximated 30x40 feet and there was no workroom attached.

plan derived from his domestic architecture. One of the principal organizers to the space are the two fireplaces. Rural schoolhouses had converted to stoves for heating prior to the Civil War, so his fireplace to heat the school was already an obsolete approach. He also included a number of built-in bookcases. While built-ins appeared in Mann's design from 1838, Stickley designed them to be part of the window, so the shelves could display student projects along with the window's purpose of permitting light into the space. Finally, Stickley emphasized that student desks were movable, not fixed to the floor as typically seen in the nineteenth century, so that the room could be reconfigured for a variety of activities, ranging from student group assignments to a large dance floor for winter celebrations. These design strategies for the open, flexible plan were concurrent with domestic architecture.



**Figure 2.14** Gustav Stickley, *The Craftsman Schoolhouse No. 120* plan, 1911; Avery Architectural & Fine Arts Library, Columbia University.

By the early twentieth century, Stickley continued to follow the hierarchy in importance of rooms and features of rooms in the house. “Each room in the house has its distinct and separate function in the domestic economy. Therefore it should be remembered that before any room can attain its own distinctive individuality everything put into it must be there for some reason and must serve a definite purpose in the life that is to be lived and the work that is to be done in that room.”<sup>105</sup> In a series of essays, each one concentrating on a single room, Stickley assigned the living room as most important because it was where the family gathered and relaxed, the dining room second in importance as a place to entertain company.

Furthermore, it was the most flexible, as he indicated in his essay title, “The Living Room, Its Many Uses and Its Possibilities for Comfort and Beauty.” Whereas nineteenth century architects, such as Reed, placed the kitchen as the common room, Stickley envisioned the entry hall, dining and living room as one ensemble. By placing greater emphasis on using one room for multiple uses, Stickley’s plans do not consider future additions to the house and the plan opened for the economical use of space. Stickley considered the basic house to only need a

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<sup>105</sup> Gustav Stickley, "Our Home Department," *The Craftsman* VIII, no. 6 (September 1905): 849-852. 849.

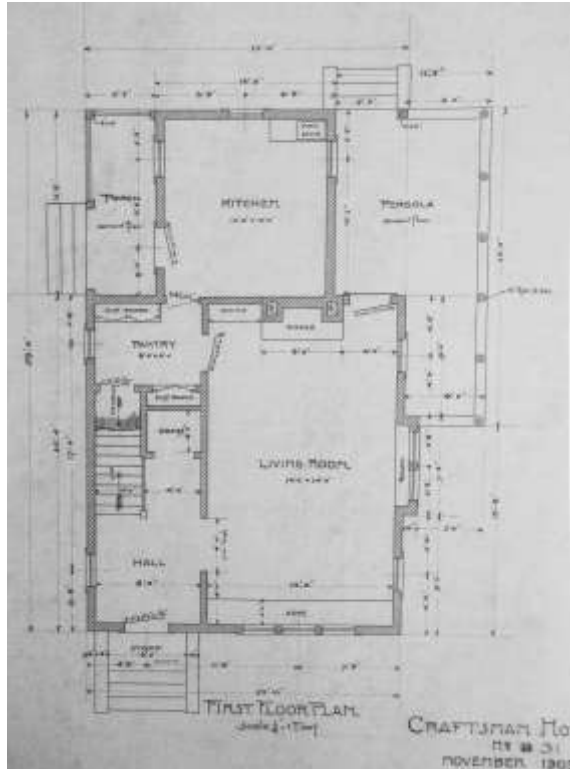
kitchen, living room, and entry hall on the ground floor.<sup>106</sup> The arrangement of Stickley's House #31 (Nov. 1905) can be divided into three areas, kitchen, living room, and entry hall [Fig. 2.15]. Each of these areas divide the plan into three sections: a servant area on the left consisting of the hall, coat closet, stair, and pantry; a served area labeled living room; and a kitchen that seems to be an appendage.

In this plan, only the living room accommodates different activities. The dining area is next to the fireplace, which can be inferred from its proximity to the pantry and the china cupboard. The fireplace is one focal point to the room and the window seat at the opposite wall is the other. The two balance and complement each other. One can sit at the window seat to view the fireplace, although the dining room table would obstruct the view. There are no columns, half-walls or grilles separating the two areas; it is one large room. This plan connects the nineteenth century plans that define rooms (the hall and kitchen are still separate) while anticipating the more open plans, and thus the multiple use room, in Stickley's later designs.

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<sup>106</sup> Gustav Stickley, "The Living Room, Its Many Uses and Its Possibilities for Comfort and Beauty," *The Craftsman* 9, no. 1 (1905): 59-68. 59.

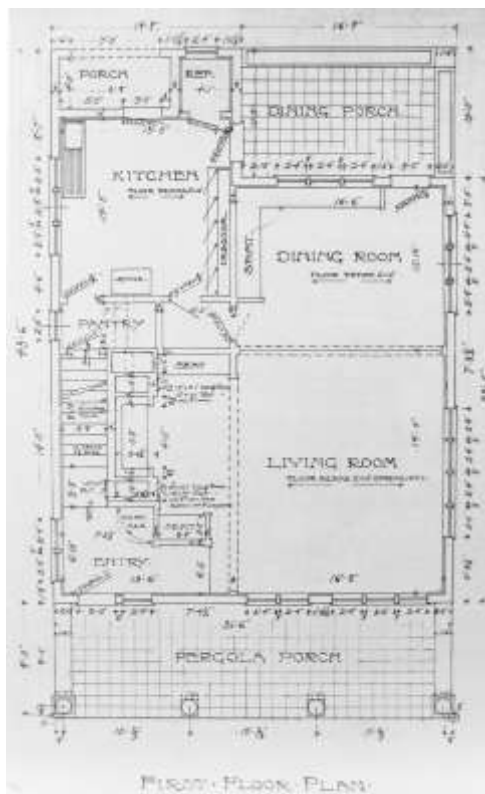




**Figure 2.15** Gustav Stickley, *The Craftsman House No. 31* plan, 1905; Avery Architectural & Fine Arts Library, Columbia University.

Craftsman House #112 (May 1911) combined the dining room, living room, and entry into one space while still giving clear definition between the three uses [Fig. 2.16]. The general organization is similar to House #31 with servant spaces on the left, now incorporating the kitchen, and served spaces on the right. The soffit beam between the living room and inglenook conceptually divides the two but visually they are part of the same space. The entry area also engaged the living room but it rises one step up from the main floor and the step, along with the adjacent built-in seat of the inglenook, are pulled back from the soffit line. The zig-zag wall at

the entry separates the stair and coat closet from the fireplace and the back of the built-in seat conceals the house's features from the entry. The other significant wall separates the dining room from the kitchen to serve as the back of the china dresser on the kitchen side and the back of the built-in seat on the dining room side. Unlike House #31, Stickley included seating for part of the dining room table – no need for additional chairs unless entertaining. The dining room built-ins and the inglenook area provided intimate spaces within the larger living area. Although there are still a number of short partitions in the plan to define major spaces, Stickley's plan accommodates greater flexibility of use within the house.

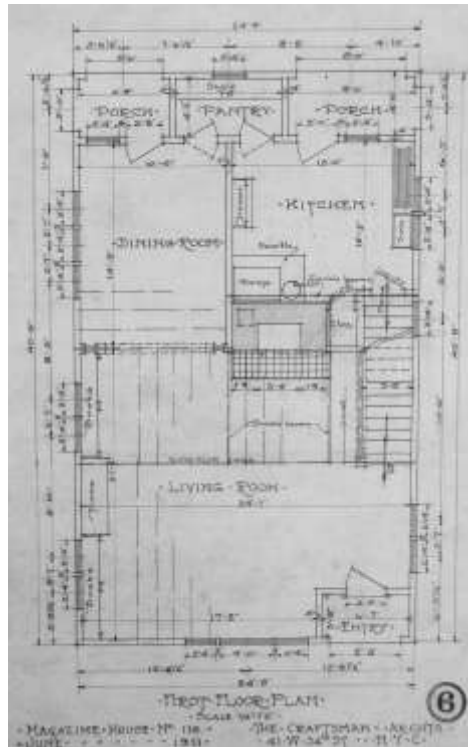


**Figure 2.16** Gustav Stickley, *The Craftsman House No. 112* plan, 1911; Avery Architectural & Fine Arts Library, Columbia University.

Stickley's house #118 (June 1911) tightened the arrangement and use of rooms [Fig. 2.17]. The entry is a small porch, about 6.5 feet wide and 4 feet deep, but still has a threshold before entering the living room without sacrificing space for a hallway. The stair and built-in seat opposite the front door can imply an interior entry hall but the area is still a sizable part of the living room. Standing at the entry, it would be possible to see the far corner of the house. There are no partitions obstructing the view, only a dropped soffit beam between the living and dining room. In fact, there are only two interior partition lines. One separates the dining room from the kitchen and the other consists of the fireplace, closet and stair – architectural features rather than a mere wall. The most awkward part of the plan is that there is no direct access to the kitchen due to these partitions. Instead, one must walk through the pantry, an appendage to the plan rather than the clean sequencing of spaces found in the two previous examples. Overall, the arrangement had the economical architectural features of the previous plans by eliminating partitions and allowing the room to accommodate areas for various activities.

To achieve what appears to be a simple proportional arrangement - one large space in the front of the house with the back half split in two near equal areas - Stickley had to economize the structural and mechanical components of the house. Because nearly  $\frac{3}{4}$  of the plan is one continuous open space, Stickley had to provide larger structural members. This plan has a flitch plate girder spanning the 24-foot width of the living room and aligns with the first tread of the stair and end of the

built-in seat. Structurally the construction is still straightforward residential construction; it just required a stronger piece. Even the mechanical planning is more efficient than the other houses. The exhausts from the range and the water boiler are part of the fireplace chimney.



**Figure 2.17** Gustav Stickley, *The Craftsman House No. 118* plan, 1911; Avery Architectural & Fine Arts Library, Columbia University.

Stickley's simple economy was the agreement of structure, mechanical equipment, and organization of spatial planning. While his plans were not aimed at accommodating additions over time he instead internalized the adaptability in the plan to allow space to accommodate different functions. This idea was not original to Stickley, but he was a designer trying to reconcile the distinction of spaces with

open plans.<sup>107</sup> His houses were a confluence of two different interpretations of simple economy. One was the distinction of spaces, previously discussed, and the other was a how to accommodate multiple uses within one space. Geometry was secondary to the organization of the Craftsman plan, the use of spaces was primary. Functions were implied by proximity to uses, such as the dining room to the kitchen, but the space itself could take on a variety of roles, such as a card game around the dining table. By eliminating additional formal spaces, Stickley's plans contradict the ancient Greek sense of economy as distinction of uses by separate spaces. Freedom from the ancient Greek domestic hierarchy offered freedom for a new sense of simple American economy.

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Vernacular residential architecture, such as the Midwest farmhouse, was built over time and the simple plan anticipated these additions. The geometry of the plan suggested a pattern for expansion. But the additions were for more formal needs, not daily activities. The geometry of the plan organized the order and symmetry of the house and the grids defined the limits of the room. The actions of farmer-builders resonated with Aristotle's description of the beautiful plot.

However, a simple plan not only accommodated expansion but also allowed for a variety of uses within defined rooms. Communal buildings were places for

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<sup>107</sup> Catherine Beecher's economical house plan from 1869 also utilized the central chimney block for efficient ventilation and heating. See Catherine E. Beecher and Harriet Beecher Stowe, *The American Women's Home*. (New York: J. B. Ford) 1869.

gathering primarily and the activities conducted varied. The operable partition in the Quaker meetinghouse provided a means for the entire congregation to worship together, men and women, and it could close two halves of the hall so each gender could conduct business affairs separately. The instinct to design rooms for various activities continued into the early twentieth century with the development of the open plan. Stickley's living rooms slowly eroded the partition between entry, sitting room and dining room but still used architectural elements such as benches, grilles, or ceiling beams to visually define distinct spaces. It was still important to generally define activities within the room such as the inglenook by the fire was for sitting or the dining room table was placed near the pantry for convenient access to the kitchen. Activities and objects maintained a relation with each other to give the open plan order, an economic simplicity.

Xenophon's economy for the ancient Greek house brought order to rooms, objects, and activities without focusing on the ornament and aesthetics of the building. The simple economical plan's organization was based not on formal aesthetics or historical styles. Instead, as Henry David Thoreau observed in his comments on economy, it stripped away the wall surfaces to understand how the house, the meetinghouse, the school or any institutional building performed. Understanding this enabled architects and builders to lay solid foundations because of the strong relations embodied in the plan.

## CHAPTER 3: CONSTRUCTION

Simplicity, which in other words, is the presence of the primitive structural idea, is then the chief quality sought after in cabinet-work of the United Crafts.<sup>108</sup> - Gustav Stickley, from *Things Wrought*, 1902

Architecture is the art of *plain and ornamental construction*.<sup>109</sup> – William LeBaron Jenney, from *Principles and Practice of Architecture*, 1869

The quotations above challenge mid-twentieth century architects and critics who shaped our contemporary definition of simplicity based on the absence of ornament unless it was to embellish construction. Carl Condit's *The Chicago School of Architecture* (1964) encapsulated this understanding when he critiqued notable nineteenth century Chicago architecture as to its legibility in articulating the steel frame by limiting, and preferably eliminating, ornament from the façade. On this point Condit stated: "The major progress of the Chicago School lay in the direction of an articulated wall that expresses the structural facts of the interior framing."<sup>110</sup> Construction and structural clarity was the most important criteria for critiquing a facade, so ornament that was not part of the frame was not considered. The

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<sup>108</sup> Gustave Stickley, *Things Wrought* (Eastwood, NY: The United Crafts, 1902). 15-16.

<sup>109</sup> Sanford E. Loring and William Le Baron Jenney, *Principles and Practice of Architecture* (Chicago: Cobb, Prtchard & Co., 1869). 9. Italics original.

<sup>110</sup> Condit, *The Chicago School of Architecture*. Op. cit. 128. Condit did not hide the fact he was following Giedion's approach of formal critique based on structural rationale. 13.

argument worked with the mid-twentieth century characterization of nineteenth century ornament in architecture, but as the quotations above clearly state ornament and simplicity came together in construction without necessarily being a literal display of the building's structure.

The nineteenth century French architectural theorist Viollet-le-Duc theoretically underpinned the commonly held mid-twentieth century position. Daniel Reiff connected Viollet-le-Duc with American architecture through structural rationalism. Reiff observed in Viollet-le-Duc's writings appeared in serial form in numerous architecture journals during the second half of the nineteenth century and the critical reception among architects was overwhelmingly favorable, with the exception of Viollet-le-Duc's own designs. Nonetheless, American architects embraced the use of iron in construction and appropriated several images from his texts into their own architecture.<sup>111</sup>

The structural rationalism hailed by his critics was at odds with Viollet-le-Duc's intense interest with history and romanticism. Martin Bressani addressed this contradiction through a careful distinction in Viollet-le-Duc's definitions for architecture and construction. Drawing from a scientific metaphor, architecture and construction had the same subtle distinction as anatomy and physiology. Anatomy

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<sup>111</sup> Daniel D. Reiff, "Viollet-le-Duc and American 19th Century Architecture," *Journal of Architectural Education* 42, no. 1 (1988): 32-47. See also Donald Hoffman, "Frank Lloyd Wright and Viollet-le-Duc," *Journal of the Society of Architectural Historians* 28, no. 3 (1969): 173-183.



studies a body at rest while physiology studies the relations of parts to the body in action; the two are similar but different. Likewise, construction refers to transferring the forces through the building, keeping it at rest, while architecture relates those structural members to social, cultural, and anthropological milieu.<sup>112</sup> Viollet-le-Duc's treatises are too complex to be reduced to simplistic interpretations of structural clarity. Furthermore, Viollet-le-Duc wrestled with the simplicity of the savage world and the civilized one. He was captivated by the simple life of the peasants during his travels through southern Italy. At the same time, Viollet-le-Duc did not escape Paris; he was intimately familiar with the needs of modern life.<sup>113</sup> These two positions, while European in their origins, bookend the discussion of simple assemblies between nostalgia for the primitive and the recognition of modern practices in building construction.

### **Primitive Structural Idea**

From the nineteenth to early twentieth century, American architects defended the rationality in primitive construction through their interpretations of Viollet-le-Duc's treatises, particularly his *Discourses on Architecture* translated into English in 1875 by American architect Henry van Brunt. Van Brunt was particularly attracted

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<sup>112</sup> Martin Bressani, *Architecture and the Historical Imagination: Eugène-Emmanuel Viollet-le-Duc, 1814-1879* (Farnham, Surrey: Ashgate, 2014). 270-73.

<sup>113</sup> *Ibid.* 75.

to Viollet-le-Duc's statement, "only primitive sources can furnish the energy for a long career."<sup>114</sup> He explained Viollet-le-Duc's statement by comparing the simplicity of primitive sources with the complexity of modern construction.

In the beginning of things, when the needs of mankind were simple and their resources of knowledge and experience comparatively small, the master-workman had his day. He developed his primitive forms directly and honestly from practical necessity... The master-workman, however, laid aside his functions as an originator, and the architect born, when precedent began so to accumulate, when civilization became so complex and exacting, the wants of mankind so various and conflicting, that, to meet the more elaborate emergencies of building, there came to be needed a larger and more exact knowledge, a more careful study of plans and details, and a more deliberate and scientific method of construction.<sup>115</sup>

The architect, unlike the primitive workman, was faced with solving conflicting building construction with the aide, not the burden, of precedent. This was not a negation of simplicity to favor complexity but achieving simplicity by using a method. If one were to return to designing forms from necessity, even if the program was complex, then one could find a simple construction for a complex program.

Yet Van Brunt was cautious as to the extent studying primitive architecture for simplicity would aide in understanding the complex nature of modern building. His concern stemmed from the American architect's impulsive responses to solve design problems rather than a methodical study to critique a solution. It is true, he

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<sup>114</sup> Eugene Emmanuel Viollet-le-Duc, *Discourses on Architecture*, trans. Henry Van Brunt (Boston: James R. Osgood and Company, 1875). 227. "...elle ne peut fournir une longue carrière que si elle va, au contraire, se retemper dans les types primitifs."

<sup>115</sup> Henry van Brunt, "Introduction," in *Discourse on Architecture*, op. cit. Xii.

admitted, that “uncultured Genius may in a moment of heaven-sent inspiration invent a great architectural thought, but plodding culture is needed to give such expressions as a place in the records of time....”<sup>116</sup> The critical phrase was “plodding culture,” culture was slow moving, slow to respond to changes, not exciting or excitable. Revisiting primitive architecture was not a sweeping recasting of buildings to appear primitive but a recognition of how slow architecture developed since primitive times. This method of historical study revealed the fundamental design problems and their solutions serving as the basis of architectural culture with the finer adjustments made to suit modern building practices such as new materials, rather than new patterns of living.

In this regard, the ancient Greeks were a plodding culture. Van Brunt cited Viollet-le-Duc’s claim that the Greeks “had the inestimable advantage of leisure.” Van Brunt interpreted this to mean that the Greek temple was a “tranquil architecture,” one conceived in “deliberation” rather than impulse; the Greek architect “built slowly.” The American architect, on the other hand, had clients who demanded prompt construction.<sup>117</sup> It seemed that simplicity also referred to the speed of production and reflection lacking in American architecture. The Greeks could slowly respond to design problems and deliberated on the very nature of a given temple, not to invent a new style or solution but to fine tune it and seek

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<sup>116</sup> Ibid. xii-xiii.

<sup>117</sup> Ibid. xvi.

perfection. The Americans were too eager to break from European models and while freedom from European traditions offered unlimited new architectural possibilities, the speed at which architects judged their options prevented them from reflecting on what was culturally significant. Simplicity was lost because American architects were pressed for impulsive response rather than careful consideration of the design challenges addressed since antiquity. A significant reason Van Brunt gave for translating Viollet-le-Duc's *Discourses* was to explain the plodding history of architecture from the ancient Greeks to the nineteenth century.

Viollet-le-Duc's interest in Greek architecture was not primarily the plodding culture Van Brunt described, but rather returning to their primitive origins of construction to interpret their ornament. He rejected the theory that the ornament carved on stone Greek temples originated from wood construction, such as the abacus of the capital being a board laid flat. Instead, he argued, primitive builders constructed structures based on wood logs. The flat board of the abacus would have been wider than the diameter of the wood post, which was roughly the diameter of the tree. It made more sense to use a bracket as the capital because the thickness of the bracket matched the width of the post. When the Greeks adopted stone as a building material for temples, the buildings differed in construction. The flat capital on a Greek temple derives from the properties of stone construction so that the column did not punch through the lintel. The Greeks then placed a series of smaller stones along the architrave - the triglyphs and metopes. Then the Greeks fluted the

triglyphs to indicate the stone resting on the architrave to define the line of the load.<sup>118</sup> The classic Greek stone temple ornamented the representation of its primitive wood construction rather than the expression of its current material construction.

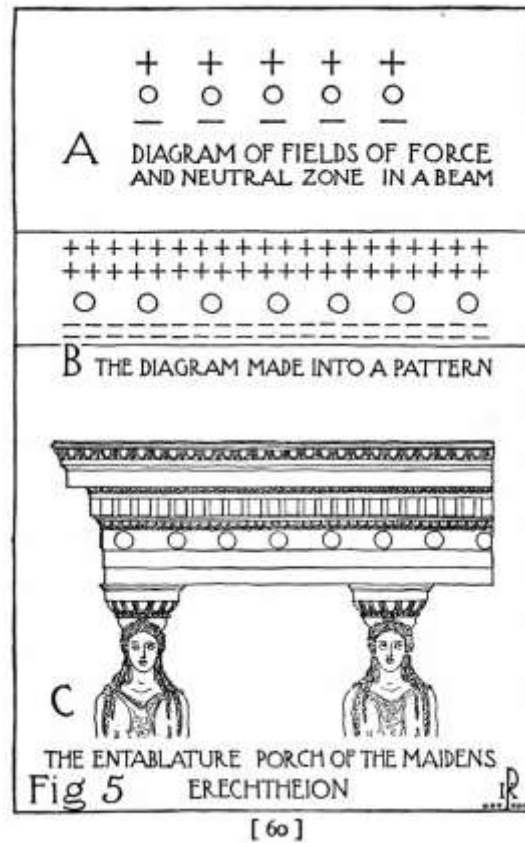
Chicago architect Irving K. Pond elaborated further on how the Greeks ornamented structural forces in the entablature. The horizontal lines of the architrave correspond to the tensile force attempting to pull material apart, as an act of negation. The frieze was the neutral line of the entablature, thus the proper place for sculptural relief. The cornice was the compressive side of the entablature and the use of light and shadow acting on the dentils suggested to Pond the plus sign (+) found on structural diagrams for compressive forces [Fig. 3.1].<sup>119</sup> Pond discovered through his observations on ancient architecture how structural clarity was legible through the embellishment of the entablature's form. "The effect produced by the Greek temple is of such absolute simplicity and such directness of purpose that one finds it not easy to comprehend what complexity of functioning is really involved."<sup>120</sup> Pond translated specific architectural pieces of the entablature into signs of structural forces.

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<sup>118</sup> Viollet-le-Duc, *Discourses on Architecture*. 27-43.

<sup>119</sup> Irving K. Pond, *The Meaning of Architecture* (Boston: Marshall Jones Co., 1918). 46-52.

<sup>120</sup> *Ibid.* 45.



**Figure 3.1** Irving K. Pond, Forces of Beam Expressed in Greek Architecture from *The Meaning of Architecture* (1918).

Viollet-le-Duc's ideas on the expression of the joint in Greek architecture did not always correspond with American simplicity. Gustav Stickley also found simplicity in the ornament and construction of ancient Greek temples. "[T]he complete justification of structural simplicity, one might almost say of structural crudity, resides in the architecture of the most artistic race appearing in history," he wrote, "The most highly developed Greek temple in marble preserved in its plan the elementary qualities of timber construction; while its ornament never disguising or

interfering with the simplicity and significance of line and contour.”<sup>121</sup> Stickley’s understanding of the Greek temple contradicted Viollet-le-Duc’s. Instead, Stickley’s appropriation of Greek simplicity was the vestige of timber construction in stone, not as a different kind of expression.



**Figure 3.2** Gustav Stickley, 5-legged Tabouret Table (1902); photo by author. From the collection of The Stickley Museum, L. & J. G. Stickley, Inc.

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<sup>121</sup> Gustav Stickley, "Structure and Ornament in the Craftsman Workshops," *The Craftsman* 5, no. 4 (January 1904): 390-396. 394.



**Figure 3.3** Harvey Ellis working for Gustav Stickley, Rocking Chair with copper, pewter, and avodire inlay (1903); photo by author. The seat cushion is not original. From the collection of The Stickley Museum, L. & J. G. Stickley, Inc.

Before he began emphasizing primitive structure, Stickley had to reconcile ornamental furniture through his experiments with Art Nouveau designs. He was not satisfied with the results, claiming that the floral patterns he made were “too flat.”<sup>122</sup> His tabouret table (c. 1902) had legs carved in floral-like shapes [Fig 3.2]. All the parts are the same thickness and no expression of the joint. While critical of his early work, he never abandoned the abstracted floral ornament on his furniture for a number of tables and chairs feature in-laid copper and other metals to accent the fumed oak furniture. The simplicity was not in the elimination of ornament, such as

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<sup>122</sup> Gustav Stickley, *Chips from the Craftsman Workshops* (New York: The Craftsman, c. 1907). N.p.



leaving the ornamental Art Nouveau style in favor of a plain Morris chair. Stickley instead argued that the ornamental inlays in the wood were analogous to ancient Greek practices of making architectural ornament. When describing the metal inlay on the back of a chair, Stickley wrote: “ornament, like that of the Greeks, appears to proceed from within outward. It bears no trace of having been applied. It consists of fine markings, discs, and other figures of pewter and copper, which, like the stems of plants and obscured, simplified floral forms, seem to pierce the surface of the wood from beneath, as the edges of planks and round ends of tree trunks continued in semblance to pierce the Greek frieze, even after translation of the original timbers in marble.”<sup>123</sup> In other words, the inlay is a depiction of wood as an organism before it became the material for the chair, just as the Greek column was a depiction of the trunk of the tree. The role of simple ornament was therefore a trace of the life of the material in its primitive form, which was literally embedded in the material rather than attached to it [Fig. 3.3]. Stickley’s description for the role of ornament was not necessary an embellishment of construction, but his claim that inlay ornament was not applied met criticism among of furniture designers.

Philadelphia architect William L. Price, one of Stickley’s competing furniture designers, associated simplicity with the term “directness,” which he defined as “an

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<sup>123</sup> Ibid. 396. Contemporary with Stickley, Belgian designer Henri van de Velde arrived at a similar realization. See Elie George Haddad, *Henry van de Velde on Rational Beauty, Empathy, and Ornament* (Ph.D. Dissertation, University of Pennsylvania, 1998). 279 ff.

absence of meaningless parts.”<sup>124</sup> His critiques were aimed primarily at furniture rather than buildings because he found a number of furniture designs, popularized by manufacturers like Stickley, added ornaments pretending to be part of the construction [Figs. 3.4 & 3.5]. For instance, splines fastening the tabletop boards could be used as a cosmetic to hide a fastener or glue joint was a meaningless part, a false construction. A simple construction would have the spline hold the table together. Price found many manufactured chairs assembled with dowel pins, glue, and even the finish held the joint together.



**Figure 3.4** L. & J. G. Stickley Co., Library Table (c. 1910); photo by author. This table approximates direct construction. Screws fasten the top to the legs, which Price might criticize, but removing the screws and keys would allow the table to be disassembled and reassembled easily. From the collection of The Stickley Museum, L. & J. G. Stickley, Inc.

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<sup>124</sup> “Simplicity is directness, and absence of meaningless parts, and not absence of ornament.” Will Price, “Some Humors of False Construction,” *The Artsman* 1, no. 9 (1904): 327. See also, Will Price, “Simplicity in Arts and Crafts,” *The Artsman*, December 1904: 92-98. 92. A comparative term would be the German word *sachlich*, which gained prominence in architecture through Hermann Muthesius and the Deutsche Werkbund.



**Figure 3.5** Gustav Stickley, Dining Table (1907); photo by author. This is an example of mixed construction. The key locking the stretcher implies that the table can be disassembled. However, the bracket has glued pins, meaning that the bracket would have to be broken off to remove the leg. From the collection of The Stickley Museum, L. & J. G. Stickley, Inc.

Price accepted ornament as part of the simplicity of a chair within certain limitations. A chair leg requires bracing and many of Price's designs used stretchers with tenons that were pegged in the leg. The mortise in the leg requires a certain thickness of material so that area needs bulk. However, Price recognized that the material between the joints did not require the same bulk. "Common sense suggests that it be reduced," it could be reduced to a minimum thickness to support the weight on the chair. Thus, this material was carved out of the leg and the maker had an infinite amount of possibilities to carve it as ornament without losing its simplicity.<sup>125</sup> Price criticized mission-style furniture because the members are not separated enough to allow ornament to occur. The connections are too close which

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<sup>125</sup> Price, "Some Humors of False Construction." 326-327.

means there is no ability to reduce material even though it could be done if the joints were further apart. For Price, the strict limitation of design as a purely structural expression was not simple, but simplistic.

The other fallacy Price observed was mixed construction. Mixed construction was inconsistency in the assembly of artifacts. These fallacies added additional parts or complicated the assembly unnecessarily. A table using a wedge joint for a brace and mortise and pin connections at the top was just as foolish, in Price's critique, as an ornamental wedge, because to take the wedge apart, one has to tear apart the mortise and pin connection [Fig. 3.6]. The assembly, as Price wrote, was "in conflict."<sup>126</sup> In a built chair, as opposed to a factory made one, the friction between the parts holds the joint together. Price's Rose Valley colleague Henry Hetzel noted the same advantage for simple chairs: "Without glue, nail, or screw such an article suggests the primitive workman, who, finding but one material at hand, used it for fastenings as well as for larger members of the structure."<sup>127</sup> Friction, a naturally occurring force between a wedge (called a key) and a mortise, locked the joint.

The addition benefit to simple construction as a reduction of parts eliminated mechanical fasteners and glue, which made repairs easier. The loose key method of construction "enables one to tighten up instantly members which have worked loose; a broken part may be replaced by a newer one without injury to the other parts, and

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<sup>126</sup> Will Price, "The Building of a Chair," *The Artsman* 1, no. 8 (May 1904): 277-284.

<sup>127</sup> Henry Hetzel, "Simple Chair Making," *The Artsman* 2, no. 7 (April 1905): 225-230. 226.

the whole may be “knocked down” to take up less space in moving.” Avoiding mixed construction allowed for easy repairs using handmade or homemade interchangeable parts.



**Figure 3.6** William L. Price, Mixed Construction (left) and Direct Construction (right) from *The Artsman* (1904). Note that in mixed construction on the left, the fasteners at the top of the legs hold the frame together, not the brace with the key.

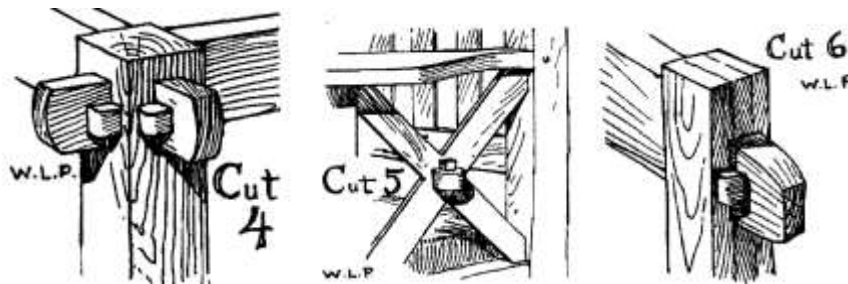
Price acknowledged that it was acceptable to make furniture using different joints, provided they do not conflict [Fig. 3.7].<sup>128</sup> The proper joinery for a table used mortise and pins for the parts of the two legs. The wedge secures the lateral supports, remove the wedges and you can remove the two supports intact. The pieces of the disassembled table are: one tabletop, two supports (legs), a lower shelf, a stretcher, and six wedges. In the mixed construction illustration, the only piece that can obviously be removed is the stretcher, but if the wedges at the ends were removed, the brace would still be locked in the table frame due to the four pinned legs. The wedge joint is therefore superfluous, or, if the table is meant to come apart,

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<sup>128</sup> Price, "The Building of a Chair."

the upper frame uses the wrong pairing of construction. The construction logic of each assembly is not consistent for the whole assembly.

False construction was a similar fallacy to mixed construction. Price pointed out a number of absurd conditions that contradict the piece's assembly [Fig. 3.7]. He found small castors attached to the bottom of thick-legged billiard tables. He found thru-tenons that appeared intersect at the same plane and thin cross-legged tables with large key joints glued to the sides. He even found instances where the tenon and key joint did function as a connection for a rail to a leg, but the leg was made of glued up pieces of wood to get the thickness, meaning the mortise completely separated the middle section.



**Figure 3.7** William L. Price, Examples of False Construction from *The Artsman* (1904)

Price considered all these examples of false construction because they were representations; they should have been built the way they pretended to be. The heavy legs could touch the floor, the tenons could connect to the same leg as long as they met at different planes, and the thru-tenon with key lock would be acceptable if

the leg was one piece rather than three thin pieces glued together.<sup>129</sup> The joints may appear honest, but the assemblies added unnecessary parts or additional work to achieve the appearance of honest construction. It would have been simpler to build the piece the traditional way than to find ways to affix the unnecessary pieces to pretend that the furniture was constructed in a way that it was not.

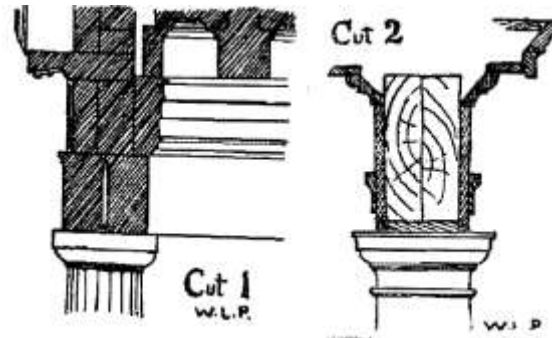
Price's critical essay on false construction sought to clarify the difference between assemblies expressing their construction (honest) and assemblies representing their construction (false) primarily in furniture construction but the critique extended to buildings. Price appropriated ancient Greek architecture – specifically the construction of the cornice – to illustrate how material expressed construction [Fig. 3.8]. The ancient temple cornice projections cantilever from the entablature to define the profile. In his sketch of the example, Price shows the projection as 1/3 of the width of the stone section with additional stones piled on top to counteract the moment force. Like the joints of a built chair held together by physics rather than fasteners, the stone cornice was “of necessity built of superimposed slabs of stone held together by gravity, the cement only playing a secondary part.”<sup>130</sup> The wood cornice, on the other hand, was built from a series of carved moldings for the profile but they concealed the actual timber beam. The

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<sup>129</sup> Price, "Some Humors of False Construction." 324-325.

<sup>130</sup> Ibid. 323.

stone and wood cornices shared a similar profile and contour, but the wood profile, even if carved by hand, was still held in place primarily by additional fasteners.



**Figure 3.8** William L. Price, *Honest and False Construction of the Classical Cornice* from *The Artisan* (1904)

Price's sketches indicate two different kinds of distinction. The honest classical entablature has distinctive parts – the cornice, the frieze, and the architrave – although the entablature itself is made of stacked stones and presumably all the same type of stone. A small relief at the top of the architrave block separates the architrave from the frieze. A double line on the frieze face suggests the triglyph to be correct for the Doric order, and the cornice stone corbels from the frieze block. Each block as a small detail of differentiation for distinction that is part of the stone block itself, rendering it simple. The false entablature has a similar profile with distinctive parts but with additional moldings to create the profile. The separation between the architrave and frieze is an additional molding, which is also the case between the frieze and cornice.



The attempt to differentiate parts within an architectural element, such as the entablature, as being an honest approach to construction corresponds with the truth and falsehood observations by John Ruskin. Ruskin illustrated his point with two different griffin sculptures, one medieval and the other Roman [Fig. 3.9]. The medieval griffin was the truthful one because it followed the logic of the body's mechanics despite being a mythical beast. The medieval griffin had claws to hold food, a beak to tear the flesh and teeth to chew it. Its neck was like the eagle's and it had the same mobility and flexibility. Even the hidden ears of the medieval griffin were correct for Ruskin, because the wind would not howl in them nor would they resist the wind in flight. The Roman depiction on the other hand had those problems, plus paws that could not hold food and a neck which Ruskin compared to a horse. The horse's neck was perhaps Ruskin's greatest objection among many because it introduced a third animal for a creature that was only two. The neck also separated to distinct parts of the griffin, the head of the eagle with pointy ears and the body of the lion. The Roman griffin was an assembly of distinct parts with additional components outside its nature (i.e. the horse's neck) whereas the medieval griffin was a unity of distinct parts complete and differentiated through its very constitution.<sup>131</sup> Ruskin's preference was of course medieval sculpture and architecture, as opposed to the American interest in Greek architecture, but his more

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<sup>131</sup> John Ruskin, *Modern Painters*, Vol. III, V vols. (Sunnyside, Kent: George Allen, 1888). 107-112.

general critique that the truth and falsehood in assembly being the difference between unity of distinctive parts without separation or mediation was in the background of American debates on honest and simple construction.



**Figure 3.9** John Ruskin, True and False Griffins from *Modern Painters, Vol. III* (1856)

In Chicago, Irving K. Pond made a similar critique about the representation of ancient construction used in Chicago's Cook County Courthouse [Figs. 3.10 & 3.11]. The colossal hollow columns, five stories tall, are a prominent feature on the façade. The columns sit on the roof of the second floor and terminate at the buildings entablature but do not support it. Instead a cantilevering truss projecting from the building's steel assembly supports the entablature. The columns appear integral to the structure from the outside, but they merely serve as a classical motif devoid of their structural function. In the Greek trabeated structure, Pond observed,

the orders were stacked one upon another. This was due to the nature of stone construction, which necessitated laying one block upon another. However, with steel construction, which was the structural system for the courthouse, steel columns are spliced and are continuous from foundation to roof truss. The horizontal beams stop at the columns, not run continuously on top of them as is the case of a Greek entablature. The difference was that stone construction continued the horizontal line while steel construction suggested a strong vertical line to express the weight forces. Pond noted: “The unbroken ascent of the forces in the post should be indicated in the enveloping material, in its vertical lines, in its details along the rising shaft and at the transitional points where the spandrel beams and the floor girders unload their weights. The classic column, with its base and capital, can find no legitimate place in the modern steel-framed building; nor can the continuous entablature find expression if the building is designed in the spirit of beauty, which is the spirit of truth.”<sup>132</sup> Pond, like Price, found simplicity in direct construction.

The Cook County building highlighted another challenge regarding simplicity of structure and the references to history. *Western Architect* hailed it as the “most modern building of skeletal construction.” However, even the critic seemed unsure of the cantilever steel truss bearing the weight of the upper floors which was implied

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<sup>132</sup> Pond, *The Meaning of Architecture*. 189.

by the colossal columns. The author described that the structure was “of interest.”<sup>133</sup> Yet the critics viewed the building not from an adherence to the primitive structure idea but to the teleological conclusion of steel construction.

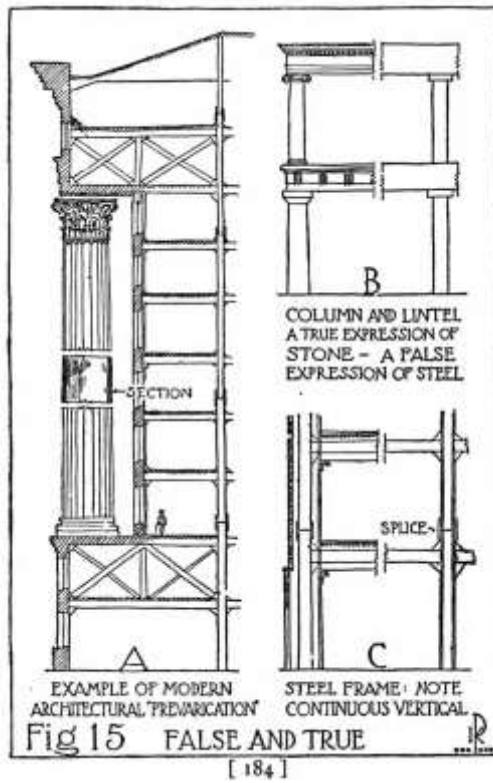


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<sup>133</sup> "The Structural Steel Work for the Cook County Court House at Chicago," *The Western Architect* 10, no. 1 (1907): 37-41. 40.



**Figure 3.10** Holabird & Roche, Cook County Courthouse in Chicago, Illinois (1906) from *The Western Architect*.



**Figure 3.11** Irving K. Pond, False and True Steel Construction, from *The Meaning of Architecture* (1918).

Pond's simplicity in construction was expressed as ornament. To make his point, he critiqued two Chicago landmarks adjoining each other on Michigan Avenue – the Studebaker Building to which he designed in part while working for Solon S. Bemen and the Adler & Sullivan Auditorium Building. Pond focused on the keystone locking the lintels for both buildings [Figs. 3.12 & 3.13]. The Studebaker building had the keystone joint located past the decorative columns at the second floor. Pond described it as “a simple continuous lintel-like effect with the inherent suggestion of a ‘flat’ arch.” By locating the joint past the decorative column and designing it as a voussoir so the top is wider than the bottom, Pond controlled any possible cracking due to foundation settlement. When the Auditorium Building was under construction next door, it moved the Studebaker's walls. Pond inspected the design observe “whatever ill effect the settling earth and walls would have upon my delicately adjusted lintels. They held and the structure remained intact.”<sup>134</sup>

Sullivan's Auditorium features a cantilevering lintel over the large arched entries to the building. The lintel has an odd inverted keystone, it is larger on the bottom than at the top. It also serves as the bearing point for a decorative column. Structurally, this would mean forces come down the column and would push out the keystone. According to Pond, Sullivan “plastered an extraneous feature of round columns and structurally complicated flat-arched lintels, most of which fracture at

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<sup>134</sup> Irving K. Pond, *The Autobiography of Irving K. Pond: The Sons of Mary and Elihu* (Oak Park, IL: Hyoogen Press, 2009). 162.

the joints, necessitating a structural revamping of the entire feature and replacing the fractured stones. Settling foundations had nothing to do with this failure which could be charged up only to the perversity of inanimate objects – and to sloppy engineering.”<sup>135</sup>

Pond was hardly kind to Sullivan, further claiming that he “was willing to smother functional forms under a meaningless mass of leafage.”<sup>136</sup> According to Pond, Sullivan seemed uninterested in the primitive structural idea; instead he focused on ornament growing from an idea rather than allowing the ornament to emerge out of the construction or as a clearly separate element to the composition. The designers who sought for the primitive structural idea – Stickley, Price, Pond, and Viollet-le-Duc – found simplicity in the reciprocal relationship between a plain assembly, such as a key joint in a table or keystone in a façade lintel, and ornamented appearance calling attention to the assembly. In short, they suggest simplicity in construction results in ornamented construction.

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<sup>135</sup> Ibid. 164.

<sup>136</sup> Ibid.



**Figure 3.12** Solon S. Bemen & Irving K. Pond, Studebaker Building stone lintel joints (1884), photo by author.



**Figure 3.13** Adler & Sullivan, Auditorium Building stone lintel joints (1889), photo by author.



### Plain and Ornamental Construction

While Viollet-le-Duc provided a theoretical framework to argue for simple construction based in the primitive, the English architectural historian James Fergusson provided a historical framework for the relationship between construction and ornament as simple construction. Fergusson believed in the separation between architect and engineer, convinced that engineers gave prose to the building and the architect gave it poetry.<sup>137</sup> Fergusson cited A.W.N. Pugin in praising “constructed ornament, not ornamental construction.” The critique stemmed from a confusion of ornament and architectural styles, for instances finding Gothic motifs applied to classical buildings. But Fergusson was willing to accept applied ornament as well. Referring to the honeysuckle motif commonly found on classical buildings, Fergusson commented the pattern was acceptable to the necking of a column, as long as it was not confused with supporting any part of the building structurally.<sup>138</sup>

In an anonymous opinion piece published in *Inland Architect* (March 1906), the author wrote, “Notwithstanding that [James] Fergusson’s definition of architecture as ornamented construction very largely prevails, and is accepted by perhaps the majority of the profession...dissenters maintain that what we may be termed good building constitutes architecture, and that the difference between

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<sup>137</sup> He was not clear in his use of the word “poetry.” James Fergusson, *A History of Architecture in All Countries: From the Earliest Times to the Present Day*, 2nd Edition (New York: Dodd Mead, 1883). 15.

<sup>138</sup> Ibid. 32-34.

architectural styles is mainly a question of construction rather than of decoration...It is true that both the Greek and Gothic architects gave their structures much added charm and beauty by their use of ornamentation, but would not their buildings have been architecture without this embellishment?"<sup>139</sup> The author concluded with the rhetorical question agreeing with the dissenters. As Viollet-le-Duc and I. K. Pond observed, different materials lent themselves to different constructions. Ornament itself was an embellishment of construction, not a mask to cover it.

The first sentence to William LeBaron Jenney's book *Principles and Practice of Architecture* (1869) was, "Architecture is the art of *plain and ornamental construction*."<sup>140</sup> Elaborating on this statement, he continued, "By plain construction, we wish to be understood in an architectural, or what is the same, an artistic sense; a construction in which all proportions are just; it is what is often termed ornamental construction...It is an old and well-established principle in architecture, *to ornament construction, never to construct for the sake of ornament*. Decoration should arise naturally from construction and the constructive idea be carried out in every detail."<sup>141</sup> Jenney was not as precise as Fergusson, calling for "ornamental construction" rather than

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<sup>139</sup> "Is Architecture Construction Ornamented?," *Inland Architect and News Record* XLVII, no. 2 (March 1906): 22.

<sup>140</sup> Loring and Jenney, *Principles and Practice of Architecture*. op. cit. 9. Italics original. There is no doubt Jenney has Fergusson in mind; in fact he cited quotations from Fergusson's book at great length.

<sup>141</sup> Ibid. Italics original. Jenney's former apprentice Irving K. Pond recalled that Viollet-le-Duc was readily available as a reference for the office. See Pond, *The Autobiography of Irving K. Pond*. 299.

“ornamented,” but his definition refers to making of ornament through construction rather than construction subordinate or indifferent to ornament. To achieve this in architecture he had to consider the parts of construction and give them subtle accents. “That architectural effect should be the simple result of structure and the practical necessities of the work...If further decoration is required, then the construction should be ornamented – that is, accented, as for example, working chamfers on the corners of posts, and cutting in design the edge of verge boards, ect. [sic.]”<sup>142</sup> This indicated that Jenney distinguished two separate but reciprocal parts to the building – the structural and practical necessities to the work.

Jenney’s notable tall office building designs had two kinds of construction, the plain and the ornamented. These two constructions continued the notion of simple as expressing the construction details per specific materials, namely as stone and steel. Stone and steel were important materials for Jenney’s buildings as the difference in their treatment and use changed from the Home Insurance Building (1885) and the Second Leiter Building (1891) attested.

Previous scholarship on Jenney focused on his rational structural frame and to what extent he was a “pioneer” in steel construction.<sup>143</sup> Ulrich Pfammatter gave attention to Jenney’s education at the École Centrale des Arts et Manufactures in

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<sup>142</sup> William Le Baron Jenney, "A Reform in Suburban Dwellings," *The Inland Architect and Builder* 1, no. 1 (February 1882): 2-3. 2.

<sup>143</sup> Theodore Turak, *William LeBaron Jenney: A Pioneer of Modern Architecture* (Ann Arbor, MI: UMI Research Press, 1986).

Paris from 1852-56, which took an engineering approach to architecture, as opposed to the artistic approach at the *École des Beaux Arts*. Reflecting on Jenney's notable buildings, Pfammatter observed three aspects to the clarity of their structure. First there was a separation between the enclosure and the internal structure. Second, Jenney understood the limits of steel construction from his training at the *École Centrale*. Third, Jenney translated those limits into common steel shapes to minimize designing special shapes for unusual structural conditions.<sup>144</sup>

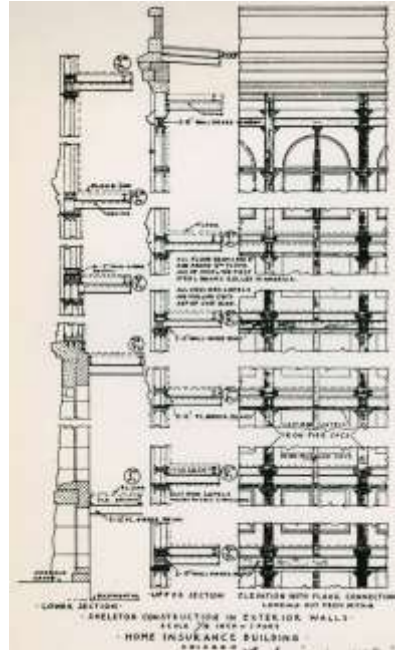
However, Gerald Larson and Roula Mouroudellis Geraniotis argued that Jenney's structural design was conservative even at the time. His Home Insurance Building had brick bearing walls except for the two street elevations. Larson and Geraniotis emphasized that Jenney's written description of the brick piers was that the iron was embedded. This indicated that the steel was not conceived as a stand-alone frame.<sup>145</sup> Pfammatter, Larson and Geraniotis depict Jenney as an engineer rather than as an architect concerned with the appearance of his buildings.

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<sup>144</sup> Ulrich Pfammatter, *The Making of the Modern Architect and Engineer: The Origins and Development of a Scientific and Industrially Oriented Education* (Basel: Birkhäuser, 2000). 166-177. Jenney originally went to Harvard to study engineering but was dissatisfied with the program. A family friend convinced him to study in Paris. He reminisced about his engineering studies and projects in an autobiography posthumously printed in *The Western Architect*. See William Le Baron Jenney, "Autobiography of William Le Baron Jenney, Architect," *The Western Architect* 10, no. 6 (1907): 59-66.

<sup>145</sup> Gerald R. Larson and Roula Mouroudellis Geraniotis, "Toward a Better Understanding of the Evolution of the Iron Skeleton Frame in Chicago," *The Journal of the Society of Architectural Historians* 46, no. 1 (March 1987): 39-48. Foundation Description of pier. William Le Baron Jenney, "The Construction of a Heavy Fireproof Building on a Compressible Soil," *The Inland Architect and Builder* VI, no. 6 (December 1885): 100.

Jenney's distinction between the exterior bearing wall and internal frame revealed a transition in traditional material (masonry) yet preserved trabeated construction as a steel structure. The Home Insurance Building had two structural methods, which was documented in a wall section and elevation by Jenney's office [Fig. 3.14]. The use of iron columns supporting iron beams for the floor established the frame for the interior space. The brick piers and transfer beams over the wall openings was a remnant of solid masonry construction as a facade to the street. The floor framing in this area bore on the iron, and not the brick piers. Additionally, the brick was necessary for fire protection, although the pier is much thicker than required so its width was partially for aesthetic reasons as much as supporting its own weight. This meant the pier was a wrap, since it was structurally independent of the column rather than a cladding affixed to the column. To show this, Jenney drew an unusual interior elevation of the exposed structure rather than depicting the finish surface. The stone cladding was drawn as a solid surface with punched openings. In other words the drawing superimposes an iron frame over a solid wall, meaning that the two constructions were equal rather than prioritizing the frame or the solid wall.



**Figure 3.14** Jenney & Mundie, Home Insurance Building Wall Section and Structure Elevation, Chicago (1885); Historic Architecture and Landscape Image Collection, Ryerson and Burnham Archives, The Art Institute of Chicago. Digital File # M525035.

Jenney was not as devoted to expressing construction to the degree the previous historians tend to cast him. Daniel Bluestone, for instance, observed that Jenney was aware of how people perceived ornament on the façade, quoting Jenney that as one approached a building “the large details are made out, and add interest to the design. The details are further enriched by details within details, the interest increasing as the observer advances.” Bluestone interpreted this to mean that the façade had a “more sumptuous treatment” at the street level and a “corresponding

simplicity in the upper façade.”<sup>146</sup> However, the 2<sup>nd</sup> Leiter Building, as I shall discuss next, challenges his interpretation. There is simplicity in Jenney’s facades regarding ornament, but it is not a separation between street and sky nor accounting for the distance of the façade’s features from the observer. Instead it concerns the distinction between the structure and the skin.

As Jenney’s use of steel construction developed, these two structural systems - brick for the exterior structure and iron for interior structure - made the distinction between plain and ornamented construction clear in the 2<sup>nd</sup> Leiter Building. Carl Condit critiqued the 2<sup>nd</sup> Leiter’s articulation of the frame as follows: “What is essential is that for the first time the steel and wrought-iron skeleton became fully and unambiguously the means of architectonic expression. The interior frame furnishes the dominate accent of the street elevations...The unbroken horizontal lines of the spandrels at every third story and the continuous vertical bands of the piers provide a simple revelation of the construction of the steel and wrought-iron framing. All ornamental details are reduced to the point of austerity.”<sup>147</sup> Condit praised the articulation of the structural frame implied by the façade but he avoided the ornamental construction of the masonry skin.

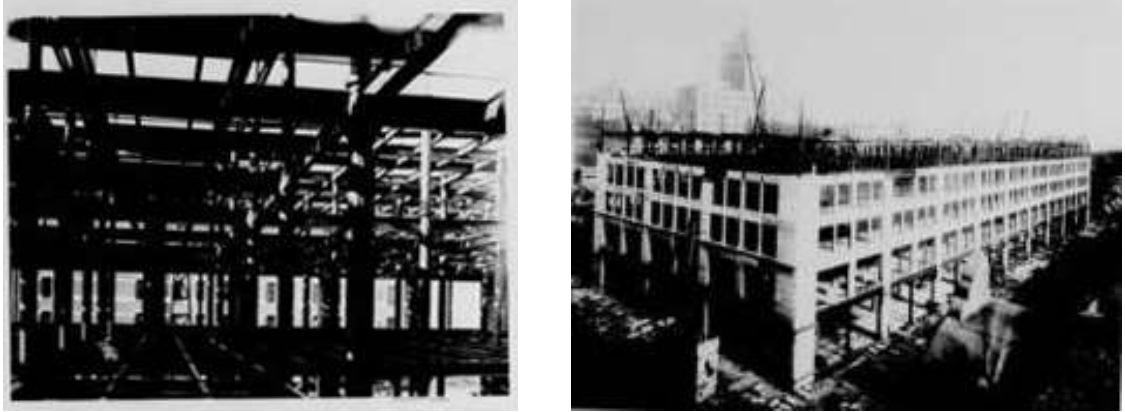
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<sup>146</sup> Daniel Bluestone, *Constructing Chicago* (New Haven, CT: Yale University Press, 1991). 144.

<sup>147</sup> Condit, *The Chicago School of Architecture*. 90. The building also appeared in *Industrial Chicago*, Vol. I, V vols. (Chicago: Goodspeed Publishing Co, 1891). 205.

The steel frame may not be literally articulated as clearly as Condit desired but it presents two assemblies - plain steel and ornamented masonry construction [Fig. 3.15]. As an expression of steel construction, the pilasters on the structural grids have greater continuity for the full height of the building compared to pilasters off the grid. The structural grid is homogenous yet the façade depicts a hierarchical structure to the frame. Starting at the corner, which is the widest pier, every other column line has a massive stone pier continuous to the cornice. The windows between the structural columns at the first floor, second floor, and eighth floor (the base and the top) articulate the structural column grid on the exterior. The pilaster order between the structural column lines consists of bundled half-column pilasters at the second floor, continuous paired half-column pilasters from the third floor to the 5<sup>th</sup> and another continuous paired half-column pilaster from the 6<sup>th</sup> floor to the cornice. There is a single, narrow pilaster at the center of the bay from floor 3 to 5 and 6 to 7 (notice that this last column does not go to the cornice). Horizontally, floors 3, 6, and 8 have an entablature with a face flush to the wide piers and the other upper floors have stone spandrels between the stone pilasters. If the façade were a literal expression of the steel frame, it would not have this much variety between the verticals and horizontals [Fig. 3.16]. As a result, the spandrel panels span between the columns rather than act as an entablature. In this way, Jenney's design approached Pond's desire to express the vertical continuity of steel columns, although the vertical lines broke at floors 3 and 6.





**Figure 3.15** Jenney & Mundie, Levi Z. Leiter Building, Chicago (1891); Burnham Library – University of Illinois Project to Microfilm Architectural Documentation Collection, Ryerson & Burnham Archives, The Art Institute of Chicago. Digital Files #000000\_19731\_09\_092 & #000000\_19731\_09\_087.



**Figure 3.16** Jenney & Mundie, Levi Z. Leiter Building, Chicago (1891); photo by author.

The façade is ornamented masonry construction even though it is not the structure for the building. The head joints of the stone are centered where pilasters occur to articulate the span of the panel. The spandrel panels are also window sills having a profile with a single curve with no intricate ornamentation. The continuity of the sill line continues across the face of the large piers, as the stone at those elevations is the same width of the sill, as if the structural line spanned the entire length of the façade. The stone brackets attached to the window mullions from floors 2 – 4 are typical details coupling the steel and masonry construction. The brackets are stone and imply they support the stone spandrel, yet the size appears to narrow and the fact they attach to the window mullion makes it unlikely, even visually, to support the weight. Yet at the same time, Jenney seems to be acknowledging that the spandrel is not a structural component to the building. The brackets themselves may be crude, rather than primitive, in that they do not reflect either assembly. Overall, the detailing of the stone and the variation in the vertical structural line expresses structure beyond literal articulation.

In Jenney's architecture, stone and steel construction had a reciprocal relation. The steel frame determined the façade's rhythm, the location of the stone piers. The stone contributed to the enclosure, filling in the gaps between piers where floor lines occurred. The steel frame carried the weight of the floors, the dead load of the structure and the live load of people and furniture. The stone provided fire protection so occupants could escape in a reasonable time before the steel melted and

collapsed. The steel frame hides behind the stone; there is no need to ornament its construction. The stone faces two streets, State and Congress, at one of the most important corners in the city. Jenney recognized the importance of the façade addressing the street and without adding additional floral motifs or finials; he ornamented the stone based on masonry construction practices. The façade of the Second Leiter Building unified the plain steel construction and the ornamented stone construction.

Plain and ornamented construction was not a contradiction in terms to Jenney's colleagues. Chicago architect Frederick Baumann also recognized this reciprocity when he wrote, "Structures wholly composed of iron would in this light be most preferable, were it possible to clothe them with proper elegance, and were they proof against neighboring fires." Baumann preferred to conceal the steel altogether, concluding in his "Improvement in the Construction of Tall Buildings" to "conceal iron construction." The reason to conceal iron construction was to maximize convenience, light, and "secureness."<sup>148</sup> Likewise architectural critic Barr Ferree wrote in 1894, "No one will contend that mankind would look better were its skeleton of bone placed outside the flesh instead of within it; yet this is very much the

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<sup>148</sup> Frederick Baumann, "Improvement in the Construction of Tall Buildings," *The Art Institute of Chicago*, 1884, <http://digital-libraries.saic.edu/cdm/ref/collection/mqc/id/49961> (accessed February 25, 2015). Baumann wrote "secureness" instead of safety.

proposition the construction-designers are maintaining..."<sup>149</sup> Ferre's criticism accepted two constructions working together. Baumann, Ferre, and even Jenney recognized the limits of articulating the frame and that a building required both a simple structure and alluding to a simple enclosure. Baumann, like Jenney realized that the façade had a civic obligation, addressing the street as much as articulating the frame of steel construction. Baumann's statement also depicts the enclosure as a cladding rather than a skin. The proper elegance enclosing the structure in an ornamented construction maintained the lightness of the steel frame and protecting members from the hazards of fire. From a civic position, this is analogous to the building's enclosure protecting the members of a community, whether it is the business community within the building or the urban community of the city from hazards. Simplicity in construction brought the two together for the purpose of improving the quality of space and safety for the public.

Other architects in the upper Midwest also found the strict adherence to celebrating structure to be impractical. In 1897, Peter B. Wight explained, "The sticklers for literal truth in expressing the structure of a building everywhere through its architectural dispositions are constantly running against methods of building which are a necessity to us because they satisfy our practical needs...Modern convenience and comfort demand that we shall have at least two materials in every

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<sup>149</sup> Barr Ferree, "The High Building and Its Art," *Scribner's Magazine* XV, no. 5 (March 1894): 297-318. 316.

external wall, one for the exterior and one for the interior. We are generally obliged to have three, one for the exterior, one for the center, or the heart of the wall, and one for the interior."<sup>150</sup> The architect William Purcell, actively practicing in Minneapolis around 1900, reflected later in life,

Everyone enjoys going through a building in the process of construction. They see the 2 x 4 studding which forms the supporting and enclosing walls; they understand the 2 x 10's which are the joists to carry the floors; up above they see the 2 x 6's which make the roof rafters. These pieces of wood all approximately 2 inches in thickness, are therefore very familiar construction items. At the same time, when people see these studs and joists they have, in the past, that this was but the framework or structural skeleton of the building. All know when completed there will be some enclosing material on the outside to resist the weather, and some of the surfacing material, usually plaster, on the inside to form rooms to live in. Therefore these 2 x 4's and 2 x 10's and 2 x 6's speak several plain words. The first is a verb, an architectural form saying 'built,' and the second, an adjective, the very same building form saying even more clearly to everybody, 'incomplete.'<sup>151</sup>

Purcell reminded architects that adhering to material properties in construction would not complete a building nor alone achieve simplicity. The building still needs an enclosure.

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<sup>150</sup> Peter B. Wight, "The Possibilities of American Architecture," *The Inland Architect and News Record* XXIX, no. 6 (July 1897): 55-57. 56.

<sup>151</sup> William Gray Purcell, "Architecture as Participle." Unpublished Manuscript located at the Northwest Architectural Archives, University of Minnesota Special Collections. For a monograph on Purcell see, David Gebhard, *Purcell & Elmslie: Prairie Progressive Architects* (Salt Lake City: Gibbs Smith, 2006).

## CHAPTER 4: CLADDING

“*Welche Urtechnik entwickelte sich aber an der Umfriedigung? Keine andere als die Kunst der Wandbereiter...*”<sup>152</sup> - Gottfried Semper, 1851.

“Every material used to enclose the structure we have seen raised must be, first, of the most enduring kind, and, second, it must be wrought into the simplest forms.”<sup>153</sup>  
– John Wellborn Root, 1890.



**Figure 4.1** Burnham & Root, Monadnock Building (1891) and Mies van der Rohe, Kluczynski Federal Building, Chicago (1971), Chicago; photos by author.

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<sup>152</sup> Semper, *Die Vier Elemente der Baukunst*. 56-58. [But what primordial technique developed from the enclosure? None other than the art of the wall-maker...]

<sup>153</sup> John Wellborn Root, "A Great Architectural Problem," in *Meanings of Architecture: Buildings and Writings by John Wellborn Root*, ed. Donald Hoffman, 130-142 (Chicago: University of Chicago Press, 1988). 141.

With the advent of steel and frame construction in tall office buildings, architects faced an unfamiliar technical problem in architecture – how to enclose a building when there is no structural need for a wall? Obviously there needed to be some barrier to protect the inside of the building from the weather, but the architectural question asked: is it important for the cladding to be subordinate to the structure or independent of the structure? To answer these questions, American architects interested in cladding called on simplicity as their muse. They asked the question historically through the anthropological metaphors by Gottfried Semper and examples printed in architecture trade journals for technical advice as well as shelter journals on aesthetics.

David Leatherbarrow and Moshen Mostafavi noted a tension in Chicago facades as being “between representation of the wall, as an outmoded form of construction, and the frame as an outgrowth of contemporary production.”<sup>154</sup> This tension appears vividly at the intersection of Jackson Street and Dearborn in the Chicago Loop. On the south side of Jackson stands the Monadnock Building (1891) by Burnham & Root, the famous solid brick bearing wall office tower. Directly opposite on Jackson Street stands the Kluczynski Federal Building by Mies van der Rohe (1971) [Fig. 4.1]. Nearly 1,000 years separate the construction modes, 80 years as commissions, and 50 feet in physical distance.

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<sup>154</sup> David Leatherbarrow and Moshen Mostafavi, *Surface Architecture* (Cambridge, MA: MIT Press, 1993). 32.

The Monadnock has a one-story base carved away as a concave curve starting at the sill of the second floor windows to the extent of the main body of the building at the head of the second floor windows. Window openings are either very deep to emphasize the mass of the wall or they are placed in projecting brick bays with no hint of corbelling; their rounded edges suggest a worn surface. The corner of the building with its razor edge point at the base slowly fillets up the wall until it curves outward as the cornice. The Monadnock expresses its masonry wall as plastic surface.

The Federal Building's enclosure is steel cladding wrapped around concrete protecting the steel structure. To articulate depth in the frame, Mies applied steel sections onto the vertical lines of the wall. The building is raised on columns with a glass wall envelope around the ground level perimeter. Mies's corner detail is a hierarchy of assemblies, the structural column clad in concrete and painted steel runs continuously up the building. The wall assembly with windows and applied steel sections is pulled back from the corner for a continuous vertical line. The articulation of the window frame is subtle; there is a narrow reveal between the frame for the glass and the horizontal steel cladding at the floor lines and vertical applied steel sections at the mullions.

Mies's building mass levitates above the plaza floor, as opposed to the Monadnock carved out of an artificial monadnock rising from Chicago's soft soil. Unlike the Monadnock, every bay is treated equal, yet the uniformity and size of the structure has the apparent massiveness as the solid brick structure. The irony is that



the Monadnock appears to defy its massive wall through its rounded edges as if the brick was a taught membrane like the skin over an emaciated body whereas the assembled nature of Mies's building, black windows and black painted steel, and uniformity make the building seem like it is about to crush the glass window wall at the ground, despite the *piloti* around the perimeter.

The two buildings raise challenges to our earlier assumptions of simplicity from Chapter 1. First, the simple exterior is typically construed as one which is devoid of ornament. Mies applied steel sections to the structure whereas the Monadnock has no perceived applied ornament on its surface but the spans of the openings are reinforced with iron beams, not stone or brick lintels. Does this mean Mies's façade is not simple and the Monadnock is? Another question following up the first is whether the articulation of the structure on the surface of the enclosure is "honest"? The Monadnock's bearing walls are brick and the whole structure celebrates its massive nature, but the shaping of the rounded brick edges transforms the brick wall into a malleable surface. Mies on the other hand articulates the frame, but the steel assembly above the ground floor does not make a distinction between the structural bays and secondary bays on the surface; this is only apparent from the columns at the ground level.

Mies's Federal Tower is well outside the timeframe of this study, but being neighbors, the comparison is too hard to resist when discussing simple cladding. Mies's architecture is a coda to the larger question on American simplicity in

architecture: how to resolve exteriors that are becoming increasingly complex yet treat the exterior as a uniform façade?

Recognizing the increasing complexity of wall assemblies, John Wellborn Root, architect of the Monadnock, recalled the simplicity in primitive buildings and how contemporary practices lack this sensibility. “[A]rchitectural development has for centuries moved from homogeneity to heterogeneity. As human needs become more complex, and as human industries multiply, human habitations take upon themselves forms continually more intricate...The architect was not distracted, therefore, by antagonistic elements toward a simple and definite result...Even the greatest of castles and palaces in their most complex conditions rarely became more than well-regulated assemblies of simple structures, each one maintaining its own individuality.”<sup>155</sup> Simplicity made distinctions between complex parts, yet those parts work together as an ensemble to perform particular tasks. Greek temples served as backdrops for cult worship and medieval castles protected the serfs and landlords from marauding invaders. Tall office buildings had to perform functions that accommodated leasable space, provide restrooms, include steam plants, and have fire protection all within what should be a simple frame and plain enclosure.

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<sup>155</sup> Root, 130-131.

### Enclosure and *Bekleidung*

In 1890, around the time of the Monadnock commission, Root wrote an article for *Inland Architect* regarding the architectural problems arising from “simple” steel construction and the challenges its simplicity placed on architectural design. Root was against cladding structure with fine surface materials but recognized cladding had to be functional on the surface for weather and fire protection. Reaching his conclusion on the problem with applying cladding, he wrote: “All that has been written [on steel construction, fireproofing, and foundations] relates to those portions of the building with which the public at large can have but little interest, but which are the inner and significant principle about which every external aspect must arrange itself...that all conditions, climatic, atmospheric, commercial and social, demand for this external aspect the simplest and most straightforward expression.”<sup>156</sup> Root found a potential social need for cladding; after all it is what people will encounter the longer duration than the internal structural assembly. This meant the enclosure, while not having to be ornate, had to address decorum for a city like Chicago.

For Root, the means to understand the complexity of the enclosure for all of the modern improvements was to revisit the earliest kinds of enclosures understand their essential parts, both in terms of function and decorum. Perhaps no other architect in the nineteenth century theorized the enclosure on those points from its

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<sup>156</sup> Root, 141.

earliest manifestations and ontological origins than Gottfried Semper. John Root was aware of Semper as attested to his translations in the *Inland Architect*.<sup>157</sup> In addition, nineteenth century Chicago had several German architects who immigrated to the city. Before Root's translation, Frederick Baumann published Semper's definition of style from "Development of Architectural Style" as "the coincidence of structure with conditions of its origin" in the *Inland Architect* in 1887.<sup>158</sup> Baumann, and likely several notable architects in Chicago, referred to Semper to understand how to design an enclosure for a new building type, the tall office building, by considering the nature of the steel frame and free plan with the conditions arising from Chicago's economic, social and cultural conditions. Semper's ideas, transmitted through German immigrant architects in late-nineteenth century Chicago, validated an architectural rationale for cladding skyscraper frames rather than building walls while maintaining the sense of decorum for the outside face of the building towards the city.

Semper's *bekleidung* theory posited enclosure as the most primordial formal principle of architecture. In "The Four Elements of Architecture" (1851) and the first

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<sup>157</sup> Root translated Semper's "Development of Architectural Style" for *Inland Architect* between 1889 and 1890, see note 44.

<sup>158</sup> Quoted in Roula Mouroudellis Geraniotis, "German Architecture Theory and Practice in Chicago, 1850-1900," *Winterthur Portfolio* 21, no. 4 (1986): 293-306. 305. Semper's definition was: "*Stil ist die Übereinstimmung einer Kunsterscheinung mit ihrer Entstehungsgeschichte, mit allen Vorbedingungen und Umständen ihres Werdens.*" ["Style is the agreement of artistic appearance with its genesis, with all of the previous conditions and circumstances of its becoming."] My translation.

volume of *Der Stil* (1860), he concentrated on enclosure because it represented what he considered to be the most archaic building craft – weaving. Semper deliberately referred to the woven partition as an *Urtechnik*, a primordial craft. *Ur* in German is a prefix referring to an ontological origin; one of the most notable examples was Goethe's *Urpflanze*, the primordial plant from which all vegetative life originated.<sup>159</sup> Throughout *Der Stil*, Semper referred to *Urformen* (primordial forms) and *ursprünglichste* (original) as an adjective to describe early spaces. Semper's ontological search for origins independent from historical precedents enabled his theory to account for archeological and anthropological observations of buildings and people. He was not only interested in how architecture was an expression of construction, but also why there was a desire a desire to adorn the body, which he associated with the desire to adorn a building symbolically, not necessarily with material alone.<sup>160</sup>

According to Semper, the first architects were *Wandbereiter*, or partition wall-makers. The primordial incarnation of the architect, as a *Wandbereiter*, would weave the enclosure, binding all the parts of the wall into an ensemble. The primordial huts used fabrics to enclose space and later more massive walls were built to support the roof, replacing the timber structure. The first fabric enclosures were not structural, Semper reasoned the intention of architects for covering massive walls was to refer to

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<sup>159</sup> Johann Wolfgang von Goethe, *Italian Journey, 1786-1788* (San Francisco: North Point Press, 1982). 205-206.

<sup>160</sup> For a more elaborate discussion on the historical background to Semper's primordial development as an anthropological science, see Alina Payne, *From Ornament to Object: Genealogies of Architectural Modernism* (New Haven: Yale University Press, 2012). 48-60.

the fabric enclosure. Over time, decorative stone or wood inlays symbolized the fabric partition. This is a distinction best understood in German between *Mauer* (meaning a fortified, heavy masonry wall, such as the city fortification) and *Wand* (meaning a partition wall such as a plaster wall separating two interior rooms).<sup>161</sup> Semper's theory recognized an inherent complexity to the enclosure given the different parts, but each engaged each other to make a complete and performing assembly. Furthermore, the simple enclosure concealed the complex internal assembly with a finished surface that was subdued in its appearance yet decorative to give the enclosure character - a façade to the building. Uniting the skin and structure concealed the complex internal wall assembly within the appearance of a simple exterior cladding.

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<sup>161</sup> Semper, *Die Vier Elemente der Baukunst*. 56-58. See also Semper, *The Four Elements of Architecture and Other Writings*, trans. Harry Francis Mallgrave and Wolfgang Herrmann. 103-104. While the below translation is mine, I kept their translation of *Umfriedigung* as "enclosure." ...*bleiben die Teppiche die alleinigen ursprünglichen Scheidungen; und selbst, wo die Aufführung fester Mauern erforderlich wurde, bildeten sie nur das innere nicht sichtbare Gerüste, versteckt hinter den wahren und legitimen Repräsentanten der Wand, den buntgewirkten Teppichen. ¶ Diese Bedeutung behielt die Wand selbst dann, als man sie aus Rücksichten größerer eigener Dauer, oder zu besserer Erhaltung der dahinter befindlichen Mauer, oder aus Sparsamkeit, oder umgekehrt zu Entfaltung größerer Pracht, oder als immer für Gründen, durch andere als die ursprünglichen Stoffe ersetzte.*

[...the carpets, the sole original separation remained; and even where the bearing on solid walls was necessary, they were only the inner invisible support (framework), hidden behind the true and legitimate representative of the wall, being the colorful woven fabrics. ¶ This meaning was retained in the wall, regardless if they were replaced over time, or used to better protect the hidden solid wall, or for economy, or to enhance appearances, or for reasons other than replacing its primordial origin.]

Around the time of the Monadnock commission, Root wrote an article for the *Inland Architect* in 1890 regarding the architectural problems arising from the “simple” steel construction and the challenges its simplicity placed on architectural design. Root was against cladding surfaces with fine materials over structure but rather architectural material cladding be the surface; this was clear in his fireproofing enclosure out of terra cotta. Reaching his conclusion, Root wrote, “All that has been written [steel construction, fireproofing, foundations] relates to those portions of the building with which the public at large can have but little interest, but which are the inner and significant principle about which every external aspect must arrange itself...that all conditions, climatic, atmospheric commercial and social, demand for this external aspect the simplest and most straightforward expression.”<sup>162</sup> Rather, Root found a potential social need for cladding, after all it is what people will encounter for the longer duration than the internal structural assembly.

Less than ten years after Root’s essay, Adolf Loos nodded to Semper in giving attention to cladding in architectural theory. Loos agreed with Semper that cladding came before architecture and that the architect’s first task was to address cladding before structure. Joseph Rykwert argued that Loos differed from Semper, who used weaving as a material and anthropological metaphor, by focusing on comfort. The purpose of clothing was to provide comfort for the human body, providing the body warmth when it was cold, keeping it dry when it was wet, and protecting it from the

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<sup>162</sup> John Wellborn Root, “A Great Architectural Problem” 141.

sun on a clear day. Likewise the carpets, the cladding of the building did all of these for the people inside.<sup>163</sup>

Associations and decorum were no less important for Loos. In “Das Princip der Bekleidung” (1897), Loos decreed that “the possibility where one can confuse the cladding material with cladding should in all cases be out of the question.”<sup>164</sup> This law had a moral obligation to avoid deceit, but it was also part of Loos’ more general theory that cladding should be appropriate to its own particular role in the building, which was independent of structure. The parable best explaining this position was in “*Die Fußbekleidung*” (1898) where he explained how different kinds of footwear were made for different activities. It would look ridiculous, for instance, for an equestrian to wear her boots on a bicycle.<sup>165</sup> It would also be foolish to not wear any footwear for riding, cycling, and mountain-climbing; each requires its own particular kind of footwear, and all protect the foot from damage. Loos supported Semper’s *Bekleidung* theory while adding that architecture supports human activities while serving its primary function to provide comfortable enclosures.

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<sup>163</sup> Joseph Rykwert, "Architecture is All on the Surface: Semper and Bekleidung," *Rassegna* 20, no. 73 (1998): 20-29.

<sup>164</sup> Adolf Loos, “Das Princip der Bekleidung” *Gesammelte Schriften*. 138-144 (Vienna: Lesethek, 2010). 141. “*Die Möglichkeit, das bekleidete Material mit Bekleidung verwechseln zu können, soll auf alle Fälle ausgeschlossen sein.*”

<sup>165</sup> Adolf Loos, “Die Fussbekleidung” *Gesammelte Schriften*. 120-125 (Vienna: Lesethek, 2010).



The principle of cladding for Loos was to not have the cladding imitate the substrate of the assembly. He explained that wood could be painted, provided it was not painted to look like wood or that stucco should not be finished to look like the rough bricks it was plastered over. The simplicity in Loos' cladding maintained the distinction between the assembly's materials, but he did not say anything about unifying the assembly. That there should be no confusion in representing the material surface of the exterior, but that did not mean it must represent the structure of the wall assembly. In fact, it was preferred that the cladding had no reference to the wall assembly.

### **Homogenous Walls?**

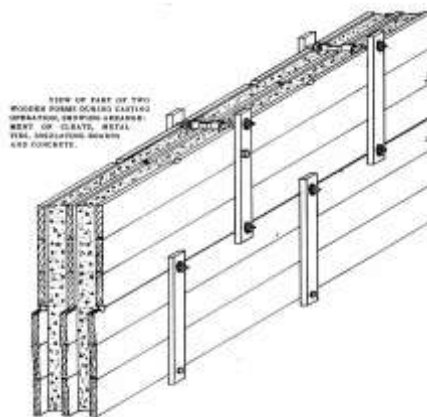
Root's essay claimed primitive architecture was simple because it was "homogenous," an idea he attributed to ancient Greek architecture. Root's argument paralleled Semper's *bekleidung* theory and conceded that Greek temples were painted, but it was only a thin membrane that went directly over the structural material. Root then contrasted this with the Romans, who placed tile mosaics and marbles over their bricks and stone rubble.<sup>166</sup> Roman cladding for Root was akin to Loos' critique, that the cladding confused the finished material with the structure.

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<sup>166</sup> Root, 142.

Instead, the primitive version of cladding was merely a decorative cladding out of a completely different material which provided the finish surface of the wall.

A concrete wall may appear to be considered a homogenous wall because the concrete (even though made up of water, Portland cement, and aggregate) constitutes the entire thickness of the wall. However, given the performance requirements for an exterior concrete wall, the wall thickness requires a means to control moisture penetration and thermal insulation. The March 1912 issue of Stickley's *The Craftsman* featured two houses built with concrete walls featured a designed formwork and thermal control into a single concrete pour. Stickley noted that solid concrete walls faced condensation as much as brick walls. Placing furring strips over the concrete or brick to provide an air space between the masonry and the plaster lath was the typical solution. Stickley's concern was that it required additional furring as a mediating material between the structural wall and finish surface that could be eliminated.



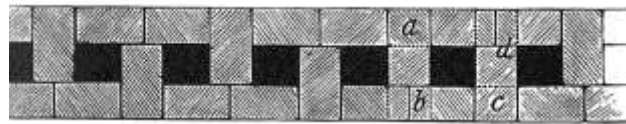
**Figure 4.2** Gustav Stickley, Simple Concrete Walls, from *The Craftsman* (1912)

His solution separated the concrete wall in half for an air gap instead of placing furring strips on the interior face to protect the plaster [Fig. 4.2]. The infill was a standard size 6" nominal sheathing board any carpenter would have on hand; the formwork sides were also the same material to keep the material palette minimal. The center sheathing boards were soaked in water prior to the pour so that when they dried while the concrete cured, there would be an air cavity to control condensation on the interior side of the wall. Metal ties held the assembly together; their shape had a U bend at the middle of the wall through the interior sheathing and a 90° bend at each end for the formwork fastener. The fastener came with the tie and it was a bolt head in place with a couple of pins and a beveled washer. The threaded portion of the bolt passed through the sides of the formwork and through 2x2 cleats holding the formwork sheathing boards in place during the pour, all secured by a nut. When it was time to remove the formwork, the nut was unscrewed and the bolt was turned to release the pins holding the head and then the entire bolt slid out of the holes. The exterior sheathing panels were removed on the remaining bolt holes in the concrete were troweled. The assembly could be reused as the wall was poured in horizontal intervals up to the roof plate.<sup>167</sup> The result was an insulated concrete wall formed by common building stock that could receive a plaster coat without condensation damage.

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<sup>167</sup> Gustav Stickley, "Craftsman Concrete Bungalows, Showing Economy of Construction," *The Craftsman*, March 1912: 663-672.

The wall construction conventions of early nineteenth century America, predating the cladding experiments in Chicago, also defy the notion of a homogenous wall. For instance, A. J. Downing encountered the same problems of moisture protection. For brick walls, Downing described a method he attributed to American architect Ithiel Town and a British building custom called “hollow walls” [Fig. 4.3]. This technique had four advantages: 1) it used fewer bricks than a solid wall, 2) the cavities provided air space which helped reduce condensation problems on the wall surface, 3) With less condensation the plaster could be applied directly over the brick surface, and 4) brick walls were fire-resistant.<sup>168</sup> Modifying the conventional construction added to the integrity of the enclosure by stabilizing and insulating the wall plus providing a substrate for a finished surface. But the nature of the construction concealed the expressive character of the brick assembly.



**Figure 4.3** A. J. Downing, “Hollow Wall Construction,” from *The Architecture of Country Houses* (1855)

When Downing presented brick houses in his book, he illustrated the exterior as stone, his preferred choice, and would describe the cladding as stucco over brick as a cheaper alternative [Fig. 4.4]. The stucco as a covering should imitate the ideal

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<sup>168</sup> Downing, *The Architecture of Country Houses*. 59-61.

construction, a representation of a homogeneous wall. This is what Root and Loos warned later architects about, but Downing was also in the midst of heterogeneous construction, perhaps primitive compared to the assemblies of tall buildings in 1890s Chicago, yet the cladding attempted to depict a homogenous construction and surface.



**Figure 4.4** A. J. Downing, Design VI from *The Architecture of Country Houses* (1855)

This same critique translated into wood stud construction as well. Downing observed two kinds of cladding on wood frame walls, horizontal siding and vertical board and batten. His preference was the latter “because it has an expression of strength and truthfulness the [former] has not. The main timbers which enter into the frame of a wooden house and support the structure, are vertical, and hence the vertical boarding properly signifies to the eye a wooden house....”<sup>169</sup> (Downing proposed the exact opposite principle of Loos’ cladding, that is was imperative to

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<sup>169</sup> Ibid. 51.

paint wood as wood.) Downing's rationale was aimed in part to expediency as much as visual appearance. He argued that clapboards required more planing, given their thin dimension, and required a great deal of skill to get the boards smooth. It was also an additional layer to the wall assembly, because the clapboards had tongue and groove sheathing as a substrate. Board and batten was more expedient because the tongue and groove sheathing was the finish surface material, ready for paint, and the battens were easy procured nailers that covered the sheathing joint which could be ornamented with as much or as little effort as the owner desired. But the paint was merely a protective coating over the wood, not a cladding concealing or disassociating the material with the internal structure. Instead, the board and batten cladding was an "honest" representation of the wall structure in that it related the wall structure to the exterior surface.

Wood stud walls in Downing's time were not "homogenous" walls in that the internal wall was only wood. In the 1850s, Downing's preferred insulating technique for wood framed walls was called "filling-in," which was a common practice in the Mid-Atlantic region. Having erected a wood stud frame, inexpensive bricks were laid up on their ends with a face flush to the inside face of the stud. This eliminated the need for wood lath as the plaster could be applied directly over the brick face and the inside face of the stud was chipped for a rough surface for the plaster to adhere. Setting the bricks on end also created an air cavity, which was the typical means of

insulating in the nineteenth century.<sup>170</sup> The wall was still solid mass and there was a limited material palette – timber, brick, and stone – and it served as the finish surface as well as the structure. The performance of the wall, namely its insulating properties and moisture protection was poor. Yet even during Downing’s time, the expectations of a wall’s performance required moisture control, thermal insulation, structure, as much as requiring a characterized appearance, such as Gothic or Italianate, on the surface of the wall. Downing’s construction as an early example of the heterogeneous wall described in Root’s essay.

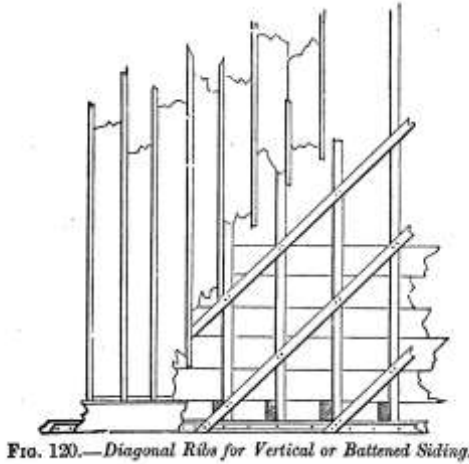
Designing walls were all the parts worked together unifying the enclosure occurred in wood framing was a persistent question during the nineteenth century. The popularity of the balloon frame starting in the mid-nineteenth century was due to its simplicity in erection.<sup>171</sup> The overall cost of a balloon frame was less than timber construction because it required less skill to make the connections, lighter and thinner materials, and individual studs could be replaced with disassembling the entire wall. The balloon frame was a simple framing system using light and mass-

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<sup>170</sup> Ibid. 53-54.

<sup>171</sup> For a historical overview of the balloon framing see, Fred W. Peterson, *Homes in the Heartland: Balloon Frame Farmhouses of the Upper Midwest, 1850-1920* (Lawrence, KS: University of Kansas Press, 1992). 15-24. For histories on the origins of the balloon frame, see Ted Cavanagh, "Balloon Houses: The Original Aspects of Conventional Wood Frame Construction Re-Examined," *Journal of the Society of Architectural Historians* 51, no. 1 (September 1997): 5-15 (Suggests balloon frame comes from French construction in Missouri); Fred W. Peterson, "Anglo-American Wooden Frame Farmhouses in the Midwest, 1830-1900: Origins of Balloon Frame Construction," *Perspectives in Vernacular Architecture* 8 (2000): 3-16; David Monteyne, "Framing the American Dream," *Journal of Architectural Education* 58, no. 1 (September 2004): 24-33.

produced wood members that can be quickly fasten together with nails. The vertical studs were continuous from the foundation sill plate to the roof truss, a height up to three stories.<sup>172</sup>



**Figure 4.5** George Woodward, Balloon Frame Construction, from *Woodward's County Houses*, 1865.

Another advantage was that, when properly constructed, it could aid in insulating the building. Balloon framing required diagonal bracing to laterally stabilize the wall [Fig. 4.5]. Carpenters could brace the inside or outside face of the frame, but the recommended side was the interior. The braces also served as supports for furring strips and metal lath. When the interior surface was plastered, the mortar would seal any cracks between the furring, bracing and wood frame, thus

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<sup>172</sup> George E. Woodward, *Woodward's Country Homes* (New York: American News Company, 1865). 151-166.



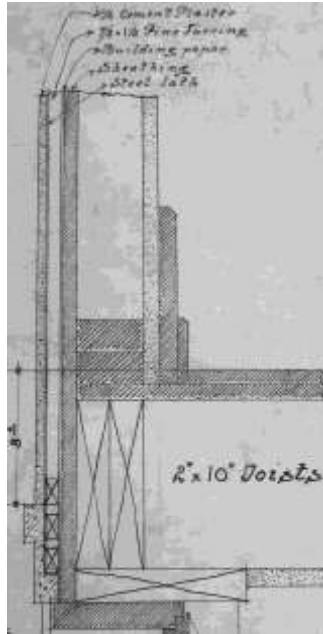
sealing and insulating the wall to its optimal performance.<sup>173</sup> In other words, the cladding made a small contribution to the structural assembly; it was not a mere coating for decorative finishes but necessary for the completion of the assembly.

Along with weather protection, the balloon frame also contributed to another phenomenon in architectural enclosures. The nature of the construction required a surface for a protective finish. Diagonal braces helped stabilize the wall but exterior sheathing held the walls together as a diaphragm. This meant the exterior finished surface was only a protective barrier, a surface to shield the structure from the rain, and as long as the surface provided this role it did not matter what material or how decorative the exterior appeared.

Stickley, for example, used wood framing construction whether his houses had a shingle, siding, or even stucco exterior surface [Fig. 4.6]. The implications of separating the skin from the structure further enabled the concealment of the complexity of the internal workings of the wall by providing a simple exterior appearance. Even the way notes are written in the drawing, bookended by sheathing and plaster finish, separates the finish surface from the stud structure. The plaster assembly is really a cladding over a structural assembly, yet the external appearance of the wall is one that is solid masonry.

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<sup>173</sup> William E. Bell, *Carpentry Made Easy, or, The Science and Art of Framing, on a New and Improved System: With Specific Instructions for Building Balloon Frames, Barn Frames, Mill Frames, Warehouses, Church Spires, Ect.* (Philadelphia: J. Challen & Sons, 1859). 53-54.



**Figure 4.6** Gustav Stickley, Wall section detail for House XI (1906); Avery Architectural & Fine Arts Library, Columbia University

### **Simple Cladding – Representational or Contradictory?**

Two alternative attitudes towards cladding appeared throughout the nineteenth century from Downing to Stickley. Downing desired the exterior cladding to represent the character of the structure (representation) and Stickley accepted a differentiation between cladding and structure (contradiction). This returns to our assumptions on the simplicity of facades: the degree of “honesty” or “truth to materials,” the kinds of ornament displayed on the exterior, and the ability to bring together the parts of an assembly into a composed ensemble. The claddings presented in this chapter should not be seen as honest or deceitful but rather degrees in which all those assumptions partake in the design.

At the end of the nineteenth century, the Stick Style and Shingle Style demonstrated both cladding approaches – one representing the underlying construction and the other contradicting it. Vincent Scully considered the Stick Style as an expression of stud construction being popularized shortly after the Civil War.<sup>174</sup> But this is also a representation of the frame, as the actual wood studs do not continue to the outside surface of the wall. Instead, sheathing covered the studs and the structural “sticks.” Even the pattern of the sticks did not represent the actual stud construction, rather they were a surface composition imitating timber construction. The Stick Style was the cladding of a frame and the Shingle Style was the cladding of a uniform membrane. This tension was one which simplicity tries to reconcile, establishing a relationship between the inner wall and exterior cladding to give the building its façade.

The Shingle Style represented an entirely different construction – masonry. Scully pointed out that H. H. Richardson and William Emerson both designed from massing sketches. Their architecture, while constructed out wood studs, was carved mass, of which “Kraggsyde” (1884, demolished 1929) by Peabody and Stearns was a

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<sup>174</sup> Scully. iv. “[T]his increased preoccupation with the articulation of all framing systems caused the wall itself to become a totally articulated wooden frame.” Interestingly, Scully gives very little attention to the surfaces of the houses he studies. There is far greater attention to the plans, mostly to make the distinction of the American plan being more open than the English plan exemplified by Norman Shaw and later to begin the background of American spatial understanding developing towards Frank Lloyd Wright (pgs. 88, 159-160). [There is also an undercurrent theme of agrarian attitudes towards American architecture and antagonism towards professional architects, but the theme could be developed further.]

clear example. Even the shingle surface appeared as a “membrane,” which gives a continuous surface as if it wraps the entire building, both on the walls and the roof.<sup>175</sup>



**Figure 4.7** Peabody & Stearns, Kraggsyde, Manchester-by-the-Sea, MA (1884), from *Artistic Country Seats* by George William Sheldon (1885).

Kraggsyde’s Shingle Style was more than a membrane; it was also the expression of masonry construction rendered in wood. Built on a rocky crag overlooking the water, the stone foundation was the crag carved away. The shingle walls continued the appearance of a house carved from the rock. Bays project from the mass of the house as folds in the rock. Near the center of the image the square bay rests on brackets, not articulated as wood brackets but stone corbels covered in

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<sup>175</sup> Ibid. 100. Scully used the word “membrane.”

shingles. Even the balcony on top of the bay sat on a series of corbels protruding from the main mass. The large arch over the porte-cochere was clad in wood; trim bows to define the extents of the arch and shingles represent voussiors. A wood keystone, slicing through the arch rather than holding it together furthered the ambiguity in whether the architects were designing around composition or a critique on the cladding itself. The articulation of the wood membrane anticipated Root's Monadnock ten years later, the material was expressive as a membrane over a mass, yet dematerialized in its lack of correspondence between material and construction. The surface is simple in its continuity yet the contradiction of the assembly conceptually makes it complex. In short, simplicity in the Shingle Style was only skin deep.

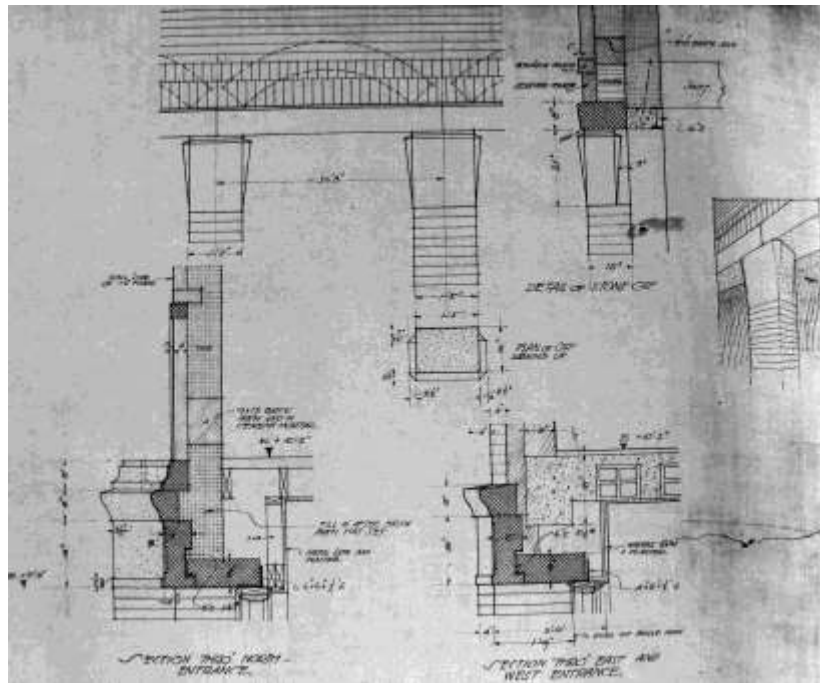
The shingles on Kraggsyde, for instance, concealed the fact that the house's walls are wood construction, thus they give the building weight and solidity on the rocky crag. It is not expressive of the wall construction but it expresses the relation of the building to the site. The shingles on the roof and walls unified the surface of the building, but at the same time the wall surface implied voussiors and corbels. There were instances where the shingles ornament the surface. It is not monotonous but deliberate in conveying the weight of the building, a central design intention situating the building in the site rather than intending the building to respect its construction.

Masonry construction shared the same cladding challenges as wood construction. On the surface, the cladding on Mount Horeb High School (1918) by Claude and Starck appears to have a basic running bond brick wall with stone sills, lintels and pilaster capitals to give the elevation some accents. The elevation is divided into bays, each bay has a large window into an office or classroom and flanking each bay is a brick pier with a stone cap. The caps support a stone lintel, which in turn supports a soldier course followed by a header course and then a running bond of brick. What is apparent is clear trabeated construction.

It is a solid brick wall but the structure of the wall is a combination of trabeated and arcuated construction. A brick relief arch behind the exterior face of the wall spans the bay. This transfers the middle third of wall to the piers so the weight does not crack the stone lintel, only the face brick bears on the stone. The back third of the wall, towards the interior side of the enclosure, bears on a composite structure made of concrete and a 6-inch deep I-beam and the I-beam supports the wood floor joist with a kerf cut. At this one location, five different materials come together - brick, stone, concrete, steel, and wood – yet the public face to the wall only hints at two. The face brick and plaster are cladding the wall, even though compositionally the wall is solid masonry, the exterior finishes to the wall conceal the massive wall behind them [Figs. 4.8-4.10]. The wall is not what it seems, but it is a representation of the construction.



**Figure 4.8** Cluade & Starck, Mount Horeb High School (1918), photo by author.



**Figure 4.9** Claude & Starck, Mount Horeb High School exterior wall detail at stone capitals; Louis Claude Papers, Northwest Architectural Archives, University of Minnesota Libraries.

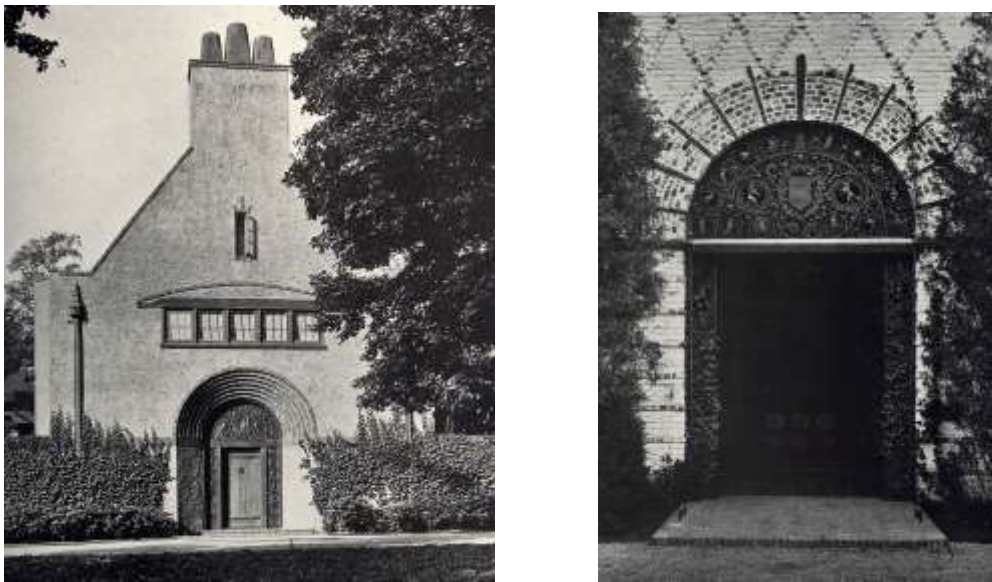


**Figure 4.10** Claude & Starck, Mount Horeb Public School; window and stone capital (top), doorway detail (bottom). Photos by author.

As Mount Horeb High School demonstrates, cladding over structure applied to masonry walls as well. The Clyde Carr House facade (1917) by New York architect H. T. Lindeberg has similarities to Mount Horeb High School in that the enclosure surface is a backdrop to highlight additional features necessary to the enclosure. The additional element to the design is the arch slightly projecting from the surface of the wall above the gang of windows. The line is only a gesture to the structure of a brick wall, it would require a deeper arch than that single header course to support the weight of the bricks above, but the projection is significant in that a concealed portion of the enclosures composition is allowed to telescope to the surface. Lindeberg's Frederick Lutz House (1916) has special masonry voussiors



with a slightly larger keystone with header brick infill to construct the entry arch. This arch could have easily been made with soldier coursing but the intention was to give the wall surface a more obvert gesture towards the construction. The projection of structural elements on the facades for the Carr and Lutz houses suggests another dimension to simplicity beyond the visual composition; one that begins to weave the surface and internal composition of the enclosure [Fig. 4.11].



**Figure 4.11** H. T. Lindeberg, Left: Clyde Carr House (1917); Right: Frederick Lutz House (1918), from *Domestic Architecture of H. T. Lindeberg*

The plain stucco wall on the Boardman Robinson House by Lindeberg is a continuous surface; even with the recessed entry for the front door [Fig. 4.12]. The entry opening is carved out of an implied wall thickness, unlike the windows positioned near the plane of the wall. The muttons and frames of the windows

accent the openings. The base of the wall accents the front of the house shares the height of the stoop. The deep shadow cast by the roof overhang and the downspouts giving a vertical to define the vertical bays of the wall. The white stucco finish provides the basis for the elevation symmetry by acting as a backdrop unifying the other necessary architectural elements for any building elevation.



**Figure 4.12** H. T. Lindeberg, Boardman Robinson House, from *The Honest House* (1914)

Even architectural prescriptive literature recognized simplicity in the exterior composition, though they may not recognize the complexity of the wall assembly. Ruby Ross Wood Wood, an interior designer, wrote, “your house...is both a ‘visible’ and ‘invisible’ house, which means simply the difference between the arrangement of your house on plan and your house as the eyes see it.”<sup>176</sup> Wood was still primarily

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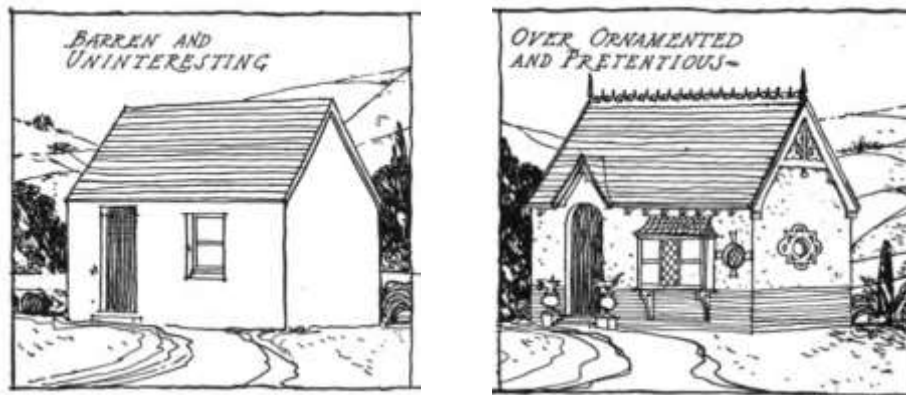
<sup>176</sup> Ruby Ross Goodnow, *The Honest House* (New York: Century, 1914). 42. Goodnow was a pseudonym, her real last name was Wood.

concerned with the visual appearance of the elevation while acknowledging people do not “see” plans as they would an elevation. Part of the architect’s training enables her to experience the plan and draw it as if one could cut through the walls of the house and look down on it. Wood did not mention the additional ability of the architect, which is to see the internal parts of the wall. This is another invisible part of the house because the wall thickness is not the black *poché* on drawings but made of parts generally consisting of finished surfaces, structure, and insulation.

Throughout the nineteenth century enclosing walls changed from solid brick or logs to using lighter framing with insulation and heating systems. The complexity of things contained in the wall required a degree of simplicity for the finished surface, whether it was a bland stucco wall or an ornamented brick veneer on the exterior.

Wood published two images in *The Honest House* (1914) as a guide for the simple façade [Fig. 4.13]. The version on the left was too plain; there was no position on either representing or ignoring the wall structure and there was no ornament. The one on the right had the opposite problem. The cladding was brick on the base and rough stucco above, raising the question if there were two separate assemblies behind the surface. Openings further confused the matter as there is no indication of a thickness to the brick base at the door opening and no indication of masonry for the arch. There was no consistency in intention between the architectural elements; was the cladding over structure or the representation of structure seen on the surface? She labeled the drawing “over ornamented and

pretentious” but it was also confusing. It was oblivious to the internal parts of the wall, neither representational nor contradictory. The building in the left image - “barren and uninteresting” - was not confused about its cladding but rather indifferent to its location, use, and appearance.



**Figure 4.13** Ruby Ross Wood, two elevations for a springhouse from *The Honest House* (1914).

Throughout the nineteenth century enclosing walls changed from solid walls to lighter frames with applied finishes. The complexity of the wall cladding now protecting the structure and insulation required a degree of simplicity for the finished surface, whether it was bland stucco wall or an ornamented brick veneer. Downing wrote that the cladding should express the internal structure of the wall because it was “honest.” Placing battens over wood sheathing or a brick veneer on a brick wall represented the building’s structure on the surface whereas a stucco finish over wood stud construction was no different than painting it. The cladding can represent the construction of the wall, such as board and batten and the Stick Style. However,

the desire to articulate the inner structure on the exterior met critique in words and practice. In practice buildings like the Craftsman house exterior had finished surfaces, such as stucco or shingles, applied over wood construction. This exterior cladding had a different character than the wood stud assembly for the structural wall. The exterior cladding wrapped the mass and treated it as a uniform surface that had no relation to the actual structure. In fact, the structure and the cladding were contradictory.

The different positions are similar to the relationship between the Monadnock and Mies's Federal Tower. The cladding of the two buildings expressed tactile properties of the surface materials yet the overall appearance of each building's form contradicts the material's mass. Each building is also breaks Loos' principle of *bekleidung*, which Root anticipated in his writings. Root cladded the Monadnock's brick walls with brick and Mies cladded his steel frame with steel.

Many of the American architects promoting simplicity in architecture did not articulate a distinction between skin and structure of the building. Instead, the surface, as a finish and protecting surface, became part of the wall assembly. The cladding of a wall assembly, whether indoors or out, defines interior and exterior spaces. The cladding for a simple enclosure can be contradictory. The simplicity of cladding was not about "honesty" to construction but rather making distinctions between the internal parts of the wall and the exterior surface to give the impression of a plain, ordered, and painted surface.

## CHAPTER 5: INTERIORS

“Above all things a room must have *unity*. The things in the room must hold their proper relative positions; the people are the most important, then the pictures, the furniture, the walls, and the floor. Destroy this order of things and the harmony of right relationships departs.”<sup>177</sup> – Fred Hamilton Daniels, 1908



Figure 5.1 Edmund Charles Tarbell, *Girl Writing* (1917); Philadelphia Museum of Art.

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<sup>177</sup> Fred Hamilton Daniels, *The Furnishing of a Modest Home* (Worcester, MA: Davies Press, 1908). 44-45.

The painting *Girl Writing* (1917) by Edmund Charles Tarbell depicts the artist's daughter posed in contemplative thought at a writing desk [Fig. 5.1]. She has an intense gaze in her eyes; it is a scholarly pose - pen in hand, the cabinet open possibly to retrieve a book - and she sits at the edge of her seat, leaning on the desk rather than on the back of the chair. She sits in the least comfortable chair, opting not to use the cushion within reach to support her back nor the upholstered wing back chair in the background to sit upright. Her chair is the only one with ornamented legs, the lion's claw-foot. The decoration for each chair responds to its use; the wingback chair was upholstered because it was for relaxation and the lion's claw-foot chair refers to St. Jerome, the scholar.

The girl sits in a group of furnishings: the writing desk, the claw-foot chair, the chair with a cushion, and a rug beneath her. The background grouping consists of a table, lamp, vase with flowers, wingback chair, and windows. The vertical lines of the windows balance the vertical case of the writing desk, yet the windows offer a view to the world outside while the glass door of a bookcase offers a view to the world of knowledge. Unpretentious decorum controls the scene; artifacts, surfaces, and geometries indicate the room's purpose but these are subordinate to the use of the room, a quiet environment for writing.

The use of light and color gives contrast and clarity to spatial zones within the room. The waistline of the girl aligns with the writing desk edge, background bench seat, and background table. The spatial zone below the waistline is dark, whether it

is the skirt or the floor. Above the waistline surfaces are light, such as the blouse, the lamp, or the walls. The ensemble has dark colors, dark stained furniture, the black skirt, dark rug, accented by the floral print cushion, the white blouse, the flower in the hat, and of course the chiaroscuro on the girl's face. The wingback chair balances the chair with cushion in color and in the geometry of the room arrangement. The table balances the writing desk; only the lamp and flowers sit on it instead of the girl. The colors of the table objects match those of the girl, although the girl's face is illuminated and the lamp is off. These spatial zones and geometries help differentiate kinds of activity; her contemplation happens in the realm of light whereas the lower third of the painting is necessary to define the room but otherwise insignificant to the girl's actions.

The room is not barren or impoverished. The flowers and paintings decorate the room even though they are not useful in a utilitarian sense. The useful pieces are not solely utilitarian either. The wingback chair, cushion, lamp, claw-foot chair are all decorations because they are furnishings that are particular and necessary for the use of the room. None of these decorations are ostentatious - the girl captures our attention not the lion's claw-foot chair - but they nonetheless elevate the pieces from being utilitarian to comfortable.

The interior of *Girl Writing* shows that quantity and quality of items do not define a simple interior, but rather the relation between decorum, decoration and



décor.<sup>178</sup> Decorum pertains to the performances occurring within the interior. This is a room where the girl can write or relax. The decorations are artifacts serving a purpose for the room; they provide places to sit (chairs), filter light (lampshades & curtains), and protect the finishes (rugs & baseboards). The interior décor is the style and arrangement of the furnishings. The décor in *Girl Writing* arranged the furnishings into groups within the room but allowed for an eclectic mix of furniture styles – “colonial” in the foreground and “Edwardian” in the background. The simple interior unified decorum, decorations, and décor through performances, purposeful objects, and styles.

### **Decorum and Decoration**

The conventional association of early nineteenth century interiors is one with a profusion of decorations and a greater increase of consumerism for the purpose of refinement, as historians such as Richard Bushman and Sally McMurry have argued. Their conclusions derived from period critiques, such as Lewis F. Allen and Solon Robinson renouncing parlor culture from frontier farmhouses.<sup>179</sup> There is no doubt early nineteenth century interiors displayed fashionable finishes and furnishings,

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<sup>178</sup> The words derive from the Latin *decorare*, meaning to beautify. Decorum also means decency. Decoration also derives from the Latin *ornatus*, meaning dress or attire for regalia. Oxford English Dictionary.

<sup>179</sup> Bushman, *The Refinement of America: Persons, Houses, Cities*. 446-447. McMurry, *Families and Farmhouses in Nineteenth-Century America*. 146-148.

which seems contradictory to the rhetoric of simplicity calling for a restriction in acquiring luxury items. Granted, early nineteenth century interiors had clear functions, which responded to particular performances and required specific decorations. Instead of considering the profusion of decorations as a contradiction to simplicity, there are instances in the nineteenth century where decorations and decorum had a clear relation that anticipated the interior depicted in *Girl Writing*.

From our contemporary associations of simplicity in the early nineteenth century, Shaker design was exemplary of simplicity through decorum and decoration. Shaker scholars frequently observed a separation between their values of simplicity and their artifacts. Edward Demming Andrews shaped our interpretation of simple Shaker chairs and architecture as having clean lines with little or no ornament and every artifact having a purpose when he curated an exhibition on Shaker artifacts at the Whitney Museum in New York in 1935. The exhibition introduced Shaker furniture to the general public, and its formulation of Shaker simplicity persists to this day. Subsequent Shaker historians discovered that Andrews was very selective in his acquisition of Shaker pieces supporting his comparison, but a number of Shaker pieces followed contemporary fashion.<sup>180</sup>

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<sup>180</sup> Stephen Bowe and Peter Richmond, *Selling Shaker: The Commodification of Shaker Design in the Twentieth Century* op. cit. 1-16, 29-31. For a comprehensive overview of Shaker historiography and revision, see Kirk, *The Shaker World: Art, Life, Belief*. Op. cit. 230-246. The current standard for the general history of the Shakers is Stephen Stein, *The Shaker Experience in America: A History of the United Society of Believers* (New Haven, CT: Yale

The Shakers understood that they were not separate from the physical world, and their architectural interiors served a physical presence so that the latent heavenly realm could emerge in religious practices. Heaven was revealed to them in moments of spiritual ecstasy called “gifts” and simplicity was one of these gifts. The Shaker hymn “Simple Gifts,” popularized in Aaron Copeland’s *Appalachian Spring*, goes, “‘Tis the gift to be simple; ‘tis the gift to be free... When true simplicity is gain’d, to bow and to bend we shan’t be asham’d...” [sic].<sup>181</sup> Dolores Hayden interpreted this as representing movement when she described the linear rigidity of Shaker organization while their paths meandered through fields and spaces. She concluded that the Shakers operated in two simultaneous realms, one made order on earth while the other was performing in a spiritual realm.<sup>182</sup>

The decorum for Shaker architecture, therefore, respected the symbolic marriage between the heavenly and earthly domains. In the hymn “The Living Building,” the unification of the carnal body and the divine spirit took place in the

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Universty Press, 1992). Stein provides a number of instances of dissent within Shaker villages and amongst the Society of Believers. For Andrews’ contribution, see Edward Deming Andrews, *The People Called Shakers: A Search for the Perfect Society* (New York: Dover, 1963).

<sup>181</sup> Reprinted in Edward Deming Andrews, *The People Called Shakers: A Search for the Perfect Society* (New York: Dover, 1963). 173. The Shaker meaning of gift is something received from God. This could be in the form of a dance, such as one goes into ecstasy, or they could be a ritual for cleansing and induce humility. Gifts were also performed to commemorate events, such as handing out pipes for the “smoking gift” to commemorate the arrival of Mother Ann Lee to America. 142-43.

<sup>182</sup> Dolores Hayden, *Seven American Utopias: The Architecture of Communitarian Socialism* (Cambridge, MA: MIT Press, 1976). 101.

building, “He revealed it to the woman/When by marriage they were one...Man in God, God in man.”<sup>183</sup> This revelation occasionally manifested itself as a whirling gift. Whirling gifts, as described by a former Shaker, were moments when a Shaker would go into spasms as an expression of God’s presence.<sup>184</sup> A period illustration depicts a woman receiving a whirling gift in the midst of the controlled performance surrounding her within a Shaker interior [Fig. 5.2].

There was strict decorum and decoration within the Shaker meetinghouse even in the presence of a gift. The image depicts gender separation, men on one side and women on the other for dancing and singing. The two singers along the line nearly touch hands but they do not hold them and only the whirling girl crosses the line. The religious practices were balanced, a bilateral symmetry of actions, even though the division as gender based. The size of the interior was large enough for these various activities – singing, dancing in circles, and frenzies – because the interior of the building housed the spiritual marriage of Sister, Brother, and God.

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<sup>183</sup> Seth Young Wells, *Millennial Praises, Containing a Collection of Gospel Hymns, in Four Parts; Adapted to the Day of Christ's Second Appearing* (Hancock, MA: Josiah Tallcott, Jr., 1813). 159.

<sup>184</sup> David R. Lamson, *Two Years Experience Among the Shakers: Being a Description of the Manners and Customs of that People, the Nature and Policy of Their Government, Their Marvellous Intercourse with the Spiritual World, The Object and Uses of Confession, Their Inquisition, in Short, a Condensed View of Shakerism as It Is* (West Boylston: David R. Lamson, 1848). 85-88. See also Hayden, 71. Earlier Shaker meetings were held outdoors or in residences during the time of Anne Lee. Originally, the dances were not choreographed; each member went into frenzy. Joseph Meachum transformed the frenzies into choreographed dances. See Julie Nicoletta, *The Architecture of the Shakers* (Woodstock, VT: Countryman Press, 1995). 35-36.



**Figure 5.2** Whirling Gift, from *Two Years Experience Among the Shakers* by David Lamson (1848).

Compared to the symbolic marriage, the decoration of the Shaker interior was subdued. Surfaces had a practical role during Shaker ceremonies. The floors were wood, no rugs, because the surface took a lot of impact from dancing. Shaker wall surfaces were typically white with rails and casework painted blue and the baseboards painted red. The white walls were a neutral backdrop to the collection of useful items suspended from wooden pegs, such as cloaks, chairs, even brooms. Furnishings and architectural interiors reciprocated their utility. The simplicity lies in the combination of decorum and decoration, artifacts have a purpose for the activities taking place in the interior.

Like the Shakers, the Quakers in the early nineteenth century also observed practices with plain decorum and decorations. The Quakers defined plain living as

an ethical practice where one searched for the Inner Light that directed moderation in actions and luxuries.<sup>185</sup> Quaker historians often find ambivalence between their pledge to being plain and the material possessions found in their houses. Susan Garfinkel argued that Quaker cabinetmakers and customers bought what was in fashion.<sup>186</sup> Bernard Herman made the same conclusion studying Quaker houses in the lower Delaware Valley. The consensus amongst these historians was that the Quaker idea of plain living was a subjective interpretation.<sup>187</sup>

Decorum in Quaker meetinghouse interiors unified the earthly and heavenly world through speech rather than dance. Quakers practiced silent worship as they searched for the voice of God deep within their souls. A Biblical precedent to the practice can be found at the opening to the Book of John: “In the beginning was the Word, and the Word was with God, and the Word was God... There was a man sent from God, whose name was John. The same came for a witness, to bear witness of the Light, that all men through him might believe... That was the true Light, which

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<sup>185</sup> Shi. 29. This sounds as though anything could be rationalized as plain by prioritizing written idealistic intentions over built work, and some scholars have made this case. See, for example, Bernard L. Herman, "Eighteenth Century Quaker Houses in the Delaware Valley and the Aesthetics of Practice," in *Quaker Aesthetics: Reflections on a Quaker Ethic in American Design and Consumption*, ed. Emma Jones Lapsansky and Anne A. Verplanck, 188-211 (Philadelphia: University of Pennsylvania Press, 2003).

<sup>186</sup> Susan Garfinkel, "Quakers and High Chests: The Plainness Problem Reconsidered," in *Quaker Aesthetics: Reflections on a Quaker Ethic in American Design and Consumption*, 50-89 (Philadelphia: University of Pennsylvania Press, 2003).

<sup>187</sup> Emma Jones Lapsansky and Anne A. Verplanck, , *Quaker Aesthetics: Reflections on a Quaker Ethic in American Design and Consumption, 1720-1920*, ed. Emma Jones Lapsansky and Anne A. Verplanck (Philadelphia: University of Pennsylvania Press, 2002).

lighteth every man that cometh into the world... And the Word was made flesh, and dwelt among us, (and we beheld his glory, the glory as of the only begotten of the Father,) full of grace and truth.”<sup>188</sup> In Quaker faith, the life of all mankind resided within every individual as a light. Upon discovering the divine, often referred to as an Inner Light, a Quaker would break the silence and utter the Word of God. Quaker religious meetings were moments of epiphany, the revelation of the heavenly world expressed in words within a plain interior.

The relation between divine epiphany and plain Quaker interiors was that the architecture served as a non-competing background. The plainness of Quaker interiors was non-distractive compared to most Christian church interiors [Figs. 5.3 & 5.4]. There was no cross, no alter, no pulpit, no font, and no saints depicted in stain glass windows. There were no icons carved in the woodwork and no imagery in the white plaster walls. The removal of iconography meant that the congregation was not looking at stories on the walls or objects of symbolic associations but rather addressing each other through a human, rather than an artificial, medium. The plainness of the white wall was the decoration which stood for the decorum for the space.

A number of architectural ornaments are missing as well which made interior architecture unobtrusive. Inside the Arch Street Meetinghouse in Philadelphia,

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<sup>188</sup> John 1:1-14.

narrow columns, based on the plainest classical order, support the front of the balcony but the lintel is made of flat horizontal wood panels and lacks the classical entablature consisting of architrave and frieze made out of wood or plaster moldings. The walls lack common moldings as well. There is no picture rail (pictures would be too much popery) and there is no crown molding to transition the wall to ceiling. Instead the plaster turns 90° as part of the ceiling plan. At Arch Street, the right corner clearly defines the wall and ceiling planes, but many rural Quaker meetinghouses resisted this distinction. Many rural meetinghouses used curves surfaces transitioning from wall to ceiling.<sup>189</sup> There was continuity between wall and ceiling as if it were one surface, an interior carved out of the stone enclosure.<sup>190</sup> Wall and ceiling surfaces were equal without a crown mold or corner, eliminating a balcony entablature did not separate balcony and main floor as two separate realms, and eliminating the alter and pulpit eliminated the ritual and architectural focus of the interior. The lack of architectural hierarchy in Christian symbols and architecture embodied the beliefs of non-distinction and non-distraction in Quaker practices.

The arrangement of the interior benches and windows further strengthened an inward orientation to the interior rather than to a specific focal point or the landscape beyond. Quakers arranged benches to face each other, forcing everyone to face not

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<sup>189</sup> I am very grateful to Bruce Williams and his family for allowing me to photograph the interior of their meetinghouse. By coincidence, I was there on one of the few days in the year when they use the building for a family meeting.

<sup>190</sup> It also anticipated Louis Sullivan and Frank Lloyd Wright's discussion on plasticity of architectural surfaces.



just each other but to the interior of the space. This discouraged eyes wandering out the windows. Granted, windows allowed natural light to enter the space, but Quaker meetinghouse windows are small compared to the area of the exterior wall. Rural meetinghouses in particular had small windows, 2 over 2 panes, and placed directly behind benches, meaning Friends sat in front of them, blocking the view. The windows at Arch Street are large, but the sill height is above the head height of seated Friends, forcing one to look up towards heaven rather than out to the city or landscape beyond. The religious practice was to look within to find heaven and the plainness of the Quaker meetinghouse directed the Friends to the middle of the interior, where their fellow Friends sat, rather than to heaven above or the world beyond.



**Figure 5.3** Arch Street Meetinghouse Interior, Philadelphia (1811); photo by author.



**Figure 5.4** Whittier, Iowa Meetinghouse Interior (1893); photo by author.

The rural schoolhouse, like the meetinghouse, was another building type where activities reciprocated with interior decorations. An 1882 circular on schoolhouse designs in Wisconsin established standards for interiors and furnishings. The wainscoting was the protective surface of the wall. For one-room schoolhouses, the top of the wainscot aligned with the stool height of the window, generally between 3 to 4 feet above the floor. This defined a continuous datum line across around the room. The surfaces above the wainscot were windows, plaster walls, or chalkboards. The top of the wainscot then served three practical roles, first it was the stool for the window, second a chair rail at the plaster wall, and third a 3-inch protruding chalk-rail under the blackboard. These were all hard surfaces which reflected noise made by small children. Therefore it was necessary for educational objects to serve an architectural function. Curtains and cloth blinds offered some sound dampening, but

even maps for geography or history lessons acted as acoustic dampers [Figs. 5.5 & 5.6].<sup>191</sup> Schoolhouses in particular brought decorum and decoration in wall finishes, both finishes and in the use of datums.



**Figure 5.5** (left) Akey School, Richland County, WI; photo by author.

**Figure 5.6** (right) Harrisburg School, Sauk County, WI (1892); photo by author.

Building sections of multi-story schoolhouses depicted in school architecture standards literature show the same interior treatment as the rural one-room schools [Fig. 5.7]. In a four-room school the wainscot in the classroom went up to the height of the window stool and in the hallway it went up about five feet above the floor. In a

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<sup>191</sup> Whitford. 23-31.

five-room schoolhouse the windows establish not only the height of the wainscot, but the picture rail aligned with the sash. In both schools the wall of the classroom was divided into three sections, the base with wainscot, the middle section with windows, blackboard, or plaster panel, and a picture rail separating the top section of the plaster wall.<sup>192</sup>

These interiors had well defined datums on the walls indicative of various activities and decorum in the room. The wainscoting, as noted earlier, protected the wall and established the height of the windowsills. This was roughly equivalent to the height of desks in the room, so writing and manual labor took place in the lower portion of the room. Between the wainscoting and picture rail, which was aligned with the window checkrail, is the chalkboard, which defines a zone for contemplation, even when a child was seated. The wall was a plain plaster surface above the picture rail, its white color helped reflect light pouring from the large windows into the central part of the room, not an even distribution of light perhaps but allowed for working light to the center of the space.

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<sup>192</sup> Ibid. 122,163.

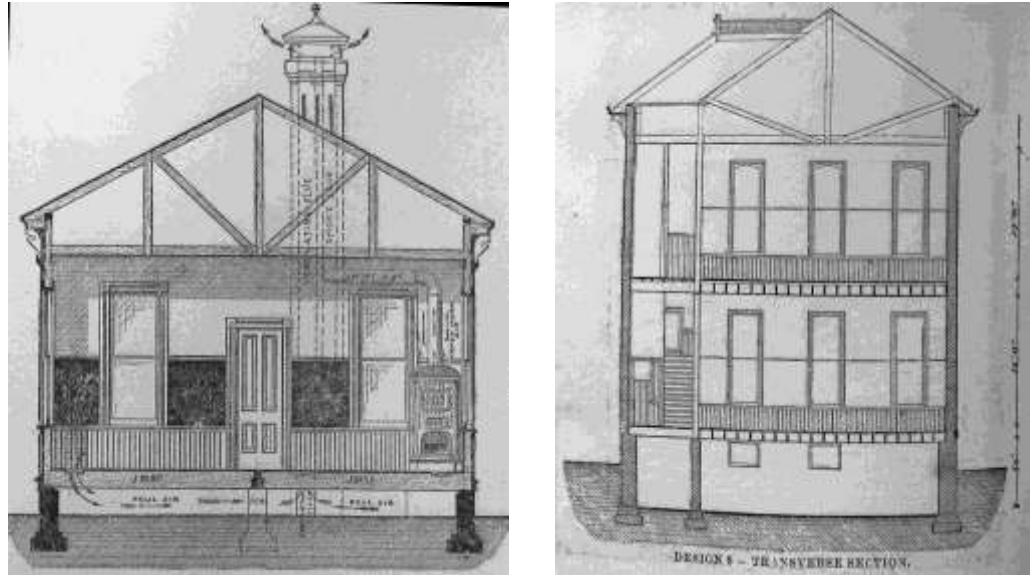


Figure 5.7 Sections of schoolhouses from *Circular on Plans and Specifications for the County Districts, Villages, and Smaller Cities of Wisconsin* (1882). Left: One room schoolhouse; Right: Two-story Schoolhouse.

### Decorum and Decor

During the early twentieth century American Arts & Crafts Movement Gustav Stickley, William Price, and William Purcell designed interiors with richly stained woods, ornamented furniture and decorative artifacts that later historians described as contradictory to simple living. T. J. Jackson Lears, for instance, claimed that “despite the craft movement’s origins in antimodernism discontent, most of its leaders worshipped at the national shrine of economic growth.”<sup>193</sup> The moral grounds rooted in Protestant ethics failed to hinder society’s acceptance of non-religious social practices. This ethic was rooted in “sobriety, discipline, and hard

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<sup>193</sup> Lears. 96.

work, combined with a deep suspicion of luxury, leisure, and sensual self-indulgence...those values, recalling republican moral tradition, formed the bedrock of the simple life.”<sup>194</sup> Conceding that simple interiors were not humble in the sense of banal, Lears saw a discrepancy between the decorum and decor for simple interiors.

Part of the background to Lears’ argument referred to Thorstein Veblen’s social critique on conspicuous consumption. Veblen’s term implied purchased items should be prominently displayed and to some extent this is also pretentious of wealth and social standing. Veblen’s theory goes even further than ostensible wealth by indicating the appearance of financial independence. Vicarious consumption, distinct from being conspicuous, refers to a consumer who is dependent on another of the same class but not financially independent. Veblen’s example is the middle class housewife who buys items with her husband’s money whereas, even a journeyman laborer still displayed conspicuous consumption because the laborer still buys articles without depending on servitude.<sup>195</sup> Conspicuous consumption was the appearance of financial independence as much as the ostentatious display of wealth.

At stake for designers in Veblen’s social criticism on conspicuous consumption was the apparent contradiction between display and simplicity.

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<sup>194</sup> Ibid. 76-77.

<sup>195</sup> Thorstein Veblen, *The Theory of the Liesure Class: An Economic Study of Institutions* (New York: MacMillan, 1915). 68-101. It is surprising that given that shelter magazines of the day often called for moderation, Veblen rarely, if ever, was mentioned in them.

Simplicity, as unifying the interior would bring the decorations of the parlor, as purposeful artifacts with the decorum, the activities conducted in parlors. But early twentieth century reformers viewed parlors as places to display possessions rather than for family activities.<sup>196</sup> Anteceding Veblen's conspicuous consumption critique, the parlor in the American house was a room to display bric-a-brac and the family's prized possessions. The parlor gained popularity around the 1840s when rural houses added it to match the formality already present in city townhouses. The parlor replaced the common room of the rural house, which was one space used as a master bedroom, dining room, and sitting room.<sup>197</sup> Along with displaying wealth, the parlor also preserved family heirlooms. Sally McMurry observed that reformers from the period claimed that the parlor was full of curiosities or items kept for no reason other than someone in a previous generation bought it. The reformers advised discarding obsolete items and keep only those with value.<sup>198</sup> Value, from their descriptions, was not monetary value but practical value. These items were typically useful and of good quality that could be displayed in a kitchen or sitting room without the formality of the parlor. This was not a rejection of objects, but a careful selection of what is useful and valuable to be on display, not exactly conspicuous consumption for the sake of consumption.

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<sup>196</sup> Edward Bok, "Is it Worth While?," *The Ladies' Home Journal* 17 (November 1900): 18.

<sup>197</sup> Jaffee. 314-317.

<sup>198</sup> See note 177.

If the decorations in parlors were not practical or purposeful, some reformers argued, then the parlor itself was an unnecessary addition to the home. This was a particular point of contention in rural societies where everything on the farm served the farm. For agricultural reformers in the first half of the nineteenth century, the parlor belonged to city houses, where decorum dictated how far one proceeded into the house. In rural areas, calling habits were on more familial terms. The common argument against it was that farmers did not entertain as much as city dwellers, and when they did the custom was to visit in the kitchen. Given that rural customs were different from cities, it seemed unnecessary to spend the money on a room that was hardly used.<sup>199</sup> Practices of rural decorum did not reciprocate with the purposeful decorations of parlor interiors.

Progressive reformers at the turn of the twentieth century were often critical of parlors as much as their agricultural forbearers. According to Edward Bok, editor of the *Ladies' Home Journal* [*LHJ*]: "in place of the American parlor...should be substituted either a living-room or a library...every plan simply presented the larger servant's room and did not present a parlor."<sup>200</sup> Perhaps Bok's memory was a little clouded over the years, for his *LHJ* houses certainly had parlors labeled on the

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<sup>199</sup> McMurry, "City Parlor, Country Sitting Room: Rural Vernacular Design and the American Parlor, 1840-1900." 261-80.

<sup>200</sup> Edward William Bok, *The Americanization of Edward Bok: The Autobiography of a Dutch Boy Fifty Years After* (New York: Charles Scribner's Sons, 1920). 241. Bok was editor from 1889 to 1919. David Shi provides a more complete picture of Bok's ideas on simplicity for the various kinds of articles in the journal during his editorship, see Shi, 181-189.



drawings. Instead this tells us something of his importance for spaces. Even during his editorship, authors submitted articles on the parlor. Helen Jay, in the September 1893 issue called the parlor “the brains of the house.”<sup>201</sup> Nonetheless, over the years the *LHJ* houses omitted the parlor.

An interior view of a *LHJ* house designed by William Price in 1895 depicts a number of features commonly seen thus far for simple interiors [Fig. 5.8]. The interior has purposeful fabrics, namely the curtain separating two spaces, curtains at the windows and a few floor rugs to cover the wood floor. Most artifacts on display are either pictures or plates with the exception being the set of spears over the mantle. The interior has furnishings and decorations and there is still a balance of architectural features such as the casework, mantle, and stair railing. Another interior by Harry McMurtrie published in the February 1907 issue of *LHJ* depicted a similar scene to make the interior as “comfortable and artistic within a reasonably small space.”<sup>202</sup> The wainscoting, made of burlap, establishes a datum for the window stool and the back of the built-in benches. Decorations are placed around the room; the window stool and center table have flowers with vases, the mantle has a clock and decorative plates, and the walls have pictures [Fig. 5.9].

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<sup>201</sup> Helen Jay, “Furnishing a Moderate Home,” *The Ladies' Home Journal* X, no. 10 (September 1893): 17.

<sup>202</sup> Harry G. McMurtrie, “A Complete Small Suburban House,” *The Ladies' Home Journal*, February 1907: 25.



**Figure 5.8** (above) William L. Price, “A \$3500 Suburban House,” from *Ladies' Home Journal* (December 1895)



**Figure 5.9** (below) Harry G. McMurtre, “A Complete Small Suburban House,” from *Ladies' Home Journal* (February 1907)

In the previous examples decorum and décor reciprocated – all décor should have a purpose for the family living in the house. Interestingly, rural reformers and Bok seemed indifferent to the style of the décor. An alternative position on simplicity, however, stressed the importance being consistent with a décor style. A. J. Downing, writing at the same time of agriculture reformers, formulated a different approach to simplifying rural interiors through decor. The appearance of the room

could achieve unity but only through stylizing the room and its furnishings.

Downing's historicist simplicity of the interior ensemble designed as a suite. His interiors cover a range of historicist styles, but he specifically labelled three as plain or simple, the Greek, Gothic, and Bracketed [Fig 5.10].



**Figure 5.10** left) A. J. Downing, "Plain Interior, Grecian Style," (middle) "Interior in a Simple Gothic Style," (right) "Interior in the Bracketed Style," from *The Architecture of Country Houses*.

Downing labeled his interior view of a Grecian parlor as plain. The room has few furnishings considering its size, but more importantly they are grouped with a purpose. There is a corner sofa by the fireplace similar to the inglenook designs by Sullivan, Wright, and Stickley at the end of the century. There is a group of chairs and a table by the large window on the left to make use of the natural light for reading, sewing, or other activities one would do in a sitting room. The window also helped light the keyboard instrument on the opposite wall, which also featured a tall painting to visually balance the vertical height of the window. The carpet pattern is plain, merely a dark square rotated 45° within a light square, and does not display complex floral patterns or Persian rug motifs. The ceiling does not have fancy

coffers, only evenly spaced dropped beams, which Downing wrote, are “indicative of the construction,” meaning the beams refer to the trabeated nature of Greek construction but are not structural themselves.<sup>203</sup> The result is the ceiling directing the eye to the fireplace, which is balanced by the vertical elements of window and painting as well as the activities of reading and playing music. The Grecian ornaments, namely the style of furnishings and the crown molding, are secondary to the interior but identify it with a particular style.

The “Interior in a simple Gothic Style” also had few furnishings in the space although they have Gothic motifs rather than Grecian. Gothic motifs included arches spanning window openings and applied thin ribs on the ceiling. The ribs are not structural, either, because Downing included a detailed drawing of the molding profile attached to the ceiling. The arch motif carried through the furnishings and wall decorations. The backs of chairs are arched at the top and the mirror frame relates to the Tudor arched opening on the adjacent wall. The arches and oval pictures accentuate a vertical line on the wall surface in keeping with the Gothic vertical proportions. The decorative palette was similar to the Grecian, such as the carpeted floor and pictures on the wall, but no collection of bric-a-brac.

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<sup>203</sup> Downing, *The Architecture of Country Houses*. 379. In fact, if they were structural they would span the other direction between the short distance between walls rather than the long distance.

In his discussion on farmhouses, Downing claimed the “bracketed style” was the one style most native to the United States and he continued the thought into the interiors.<sup>204</sup> He considered the bracketed style the plainest of all the interior styles because the only decorative architectural element indicating support is the bracket, instead of the arch for Gothic or the beam for the Grecian. The openings maintain the rectilinear shape of the Greek, the thin lines of the Gothic. There are two side tables flanking the fireplace that use the bracket at the foot and support of the table, but the chair motifs resemble the chairs in the Grecian parlor. There are large brackets at the cased window opening in the background. The mirror frame over the mantle takes the shape of the bracketed opening but does not have actual brackets. For this style, the furniture does not correspond to the architectural character as directly as the Grecian or Gothic styles.

In Downing’s illustrations, the stylistic motifs are secondary to the factors of simplicity. All three interiors have the same decorations: fireplace, bay window, crown moldings, a table, and assortment of chairs placed either against the wall are near the table. The appearance of these decorations, whether Grecian, Gothic, or Bracketed make up the décor, each style obeys the geometries and characteristics of the architectural interior. The decorum is consistent, each room has the same purpose and the furniture arrangement generally follows the same layout. When Downing wrote “simple” and “plain” next to each style, the qualities referred to the

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<sup>204</sup> Ibid. 163.

composition rather than the style itself. However, the images also show that the decor obeyed the architectural style to keep the furnishings and architecture into unity.

Simplicity relating decorum and stylistic décor continued into shelter magazines sixty years after Downing. The critique in shelter magazines included architectural surfaces as well as furniture selection. In 1909, Stickley published a book on Craftsman house designs with essays on home decoration, including walls. When depicting interior walls, Stickley's preference was to panelize the wall, consisting of wainscoting on the lower half of the wall with vertical stiles running the full height of the wall at windows and doors, or alternating every few wainscot panels. Often, a paper frieze runs at the top of the wall or a broad wood rail in place of a crown.<sup>205</sup>

Likewise, Edward Bok's comparison of "Good Taste and Bad Taste in Walls" in *The Ladies' Home Journal* favored walls having few patterns in the wallpaper and a clear definition to the parts of the wall. Interior walls were traditionally split in half, with each half consisting of a series of parts. The lower wall had a base with shoe mold, wainscoting capped with a chair rail.<sup>206</sup> While each is decorative, they also had a function. Wainscoting could take more abuse than plaster, so when chairs

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<sup>205</sup> Gustav Stickley, "The Treatment of Wall Spaces So That a Room Is Complete and Satisfying," in *Craftsman Homes*, 144-148 (New York: Craftsman Publishing Company, 1909).

<sup>206</sup> That is an interesting word isn't it? Wainscoting...sounds like a little Dorset village.

moved there was less damage to the wall. Above the chair rail, and likely less in the reach of furniture or children, walls were often papered (although they could be plastered or paneled). Bok did not challenge this arrangement; his greater concern was the selection of paper or paneling above a typical wainscot. His preference was to eliminate floral patterns, preferring a floral frieze in paper at the wall crown or, at most, a two-tone stripe pattern.<sup>207</sup> The direction was to make the wall fairly neutral in appearance for the sake of hanging artwork.

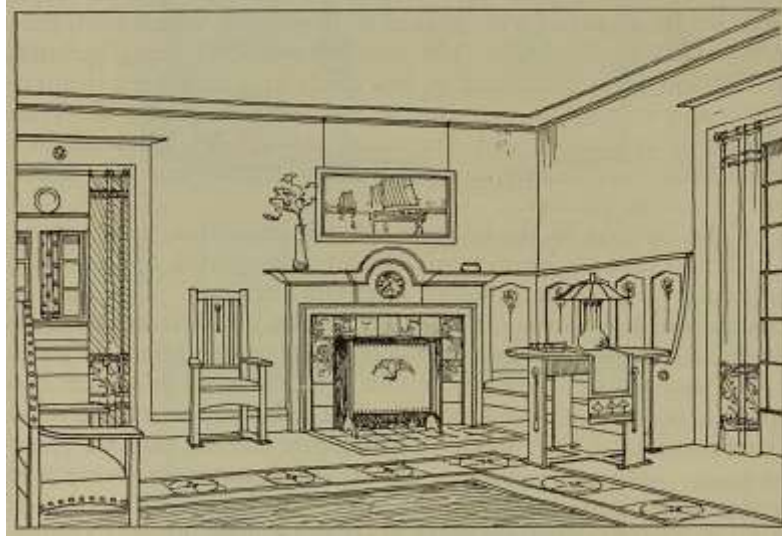
Stickley and Bok considered wall surfaces had numerous finishes and uses as simple. One consequence was that it maintained a classical hierarchy of base, panel, and crown. Second, there is a greater emphasis on the architectural surface. The wainscot and plaster are the architectural finishes to the wall; wallpaper and oilcloth are an additional cladding indifferent to its substrate. Stickley not only praises the finish of wood, for instance, he even preferred a rough textured plaster to give subtle shadows on the wall an additional quality.<sup>208</sup> But it could also recede as a backdrop to additional objects such as pictures or a table with flowers placed before it. Third, the only paper applied to the wall was an occasional frieze or stripe pattern, and his patterns in the illustrations showed an abstraction of the highly floral patterns in most papers, meaning there was more of a plain field background to highlight the

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<sup>207</sup> Edward Bok, "Good Taste and Bad Taste in Walls," *The Ladies' Home Journal*, November 1906: 39.

<sup>208</sup> Gustav Stickley, *Craftsman Homes* (New York city,: The Craftsman publishing company, 1909). 145-148.

pattern inherent in the paper design. The simple wall surface could either stand on its own as a finish to the room or provide the backdrop of interior décor.



**Figure 5.11** Claude Fayette Bragdon, “A Simple Dwelling,” from *The Craftsman* (September 1903).

A contrasting interpretation of simple interiors was to have a variety of furnishings rather than rely on an overarching style. Claude Bragdon, writing in *The Craftsman*, reacted to the cluttered parlor interiors commonly described in the nineteenth century. Instead, he emphasized the décor of the house to practical articles over the fine arts: “This is the true test of aesthetic culture: it does not consist, as many people seem to suppose, in surrounding one’s self with brown photographs of ruined temples, and disfigured sculpture, or in being able to name correctly all of



Raphael's madonnas."<sup>209</sup> The interior perspective of his house illustrated his closing sentence; there is art but it is part of the artifacts in the room [Fig. 5.11].

Objects on display did not have to be expensive, but in Bragdon's illustration they needed a plain surface so that patterns were conspicuous. The curtains, rugs, tiles, fire screen, and the backrests to the chairs all display geometric patterns but they are at the borders or center of the objects and there is still a considerable amount of plain fields to highlight the ornament. The mantle has a vase with flowers and a small pot and no busts or photographs. There is a painting over the fireplace, the only fine art object on display, which is balanced by a plate displayed above the window in the far room. The table has a book and a lamp - no candy dishes, stereoscopes, or little figurines. In fact, each of these elements all relate to a useful ensemble. It is quite easy to image a person seated at the bench next to a warm fire reading the book with the aid of the lamp. The simplicity of the room was not to remove art, or have a few sticks of furniture, but that everyday useful objects are beautiful when relate to each other in use.

In a 1906 issue of *Indoors and Out*, Mabel Harlow addressed simplifying the interior of the house with basic decorating techniques and careful purging of furniture. By avoiding the expense of new construction or renovation, she observed that "[t]here are three things to consider – the floor, the walls, and the

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<sup>209</sup> Claude Fayette Bragdon, "A Simple Dwelling," *The Craftsman* 4, no. 6 (September 1903): 478-485. 484-485.

furnishings.”<sup>210</sup> The means of simplifying the interior was to take stock of necessary and valuable items and remove the clutter [Fig. 5.12]. This was not in accordance with a particular style, it was acceptable to mix furniture styles in the same room. She kept the Sheraton shield chair but added a Morris recliner, and the mantel and mirror frame were left untouched along with the Persian rug. The main design principle for simplicity for Mabel Harlow’s interior was to make the room restful to the eye. Rather than have a busy floral wallpaper pattern, it was better to use a muted stripe pattern or even a dull-colored wall. By reducing the amount of furniture in the space and subduing the visual prominence of the wall, the architectural details such as the mantel and casework could be more pronounced.<sup>211</sup> It created a visual balance between the architectural details and the owner supplied finishes to the room.

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<sup>210</sup> Mabel Harlow, "The Improvement of the Commonplace Room: How This May Be Done By a Process of Elimination, or of Substituting Tawdry Objects, Dignified and Simple Ones," *Indoors and Out* 1, no. 4 (January 1906): 198-200. 198.

<sup>211</sup> *Ibid.*



**Figure 5.12** Mabel Harlow, "The Improvement of the Commonplace Room: Before (above) and After (below)," from *Indoors and Out* (January 1906).

Simple interiors had an eclectic mix of furniture that, in theory, were not associated to a particular fashionable style. Part of the reason concerned finances.

Helen Jay advised buying pieces of furniture incrementally rather than buying an entire suite.<sup>212</sup> Gustav Stickley tried to distance himself from stylized Craftsman furniture by arguing that, “Every distinct style in furniture, considered in its purity, met the needs and expressed the character of the people who made it and the age in which it was made. It is only in modern times that we see a kaleidoscope of imitations and adaptations from all styles, jumbled together without regard for their fitness or for any permanently satisfying qualities which they may or may not possess.”<sup>213</sup> Furnishings with a timeless quality, whether it was because the finished artifact expressed the means of construction or the room followed rules of composition, did not go out of fashion.

The living room of Minneapolis architect William Purcell is a case in point [Fig. 5.13]. In 1909 he noted only one recently purchased object, a Rookwood bowl bought the previous year. Many of the chairs and tables date from the late 1880s to early 1890s when he shared the house with his grandmother. The oldest object in the photo, the grandfather clock, was made in 1809.<sup>214</sup> It was an eclectic collection of furnishings following no clear aesthetic style, such as the Prairie style he and his business partner George Elmslie provided for their clients. What was important in

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<sup>212</sup> Helen Jay, "Furnishing a Moderate Home," *The Ladies' Home Journal* X, no. 10 (September 1893): 17.

<sup>213</sup> Gustav Stickley, *Chips from the Craftsman Workshops* (New York: The Craftsman, 1907?). n.p.

<sup>214</sup> William Purcell. Photograph. 1908. Northwest Architectural Archives, University of Minnesota. Purcell noted the year in which each object was purchased on the back of the photograph.

his notes on the back of the photograph was not the appearance of the furnishings, but how long his family had them. Some cases were heirlooms, others bought recently, but the collection in the room accumulated over time and over generations.



**Figure 5.13** William Gray Purcell, Photograph of his Parlor (1908); Northwest Architectural Archives, University of Minnesota.

William Purcell photographed his living room nine years before *Girl Writing*. Some of the furnishings are more ornate than those in the painting but the balance, geometries, symmetry, and groupings are similar. A large rug protects the hardwood floor from moving chairs around for different configurations. The pattern is like a Persian rug but its intricate pattern is balanced by the plain ceiling above. The chairs flank the circular table symmetrically and the large overstuffed chair balances the

wooden chair and floor lamp. Both chairs invite reading - the large chair near the window was bathed in natural light and the lamp by the wooden chair allows one to read after dark. The reader even has a clear view of the grandfather clock to know when it is time to retire for the night. The bookcase built into the wall behind the chair group is convenient to return a book when finished or it could be placed on the table for the next night. Everything has a purpose in room; decorum and decorations come together even if there is no stylistic *décor*. Simple decorations in architecture embody activities in buildings. Simple interiors need not be a totalitarian purity of style, or rejection of conspicuous consumption, but they relate balance, purpose, and deference to the activities in the room.

## CHAPTER 6: A HIGH STANDARD

We can never make life simple but we can make it simpler than we do. – Edward Bok (1908)<sup>215</sup>

Throughout the dissertation I explored a variety of interpretations on simplicity in American design and showed that while many architects sought it, each had a different way to justify and accomplish it. Why did so many American designers strive for simplicity from so many directions? For one thing, architects have particular interests in their design philosophies. William LeBaron Jenney and Irving K. Pond took a deep interest in expressing structure in their designs while floral ornamental motifs were less important. Some architects had a background in furniture design, such as Gustav Stickley and William Price, and thus their ideas on simplicity focused on craftsmanship and joinery. Some architects were tradesmen, such as early nineteenth century Shakers and Quakers, who built structures out of the need for spiritual performances. Some architecture critics were self-appointed designers elevating common tastes through popular publications, such as A. J. Downing, Ruby Ross Wood, and Edward Bok. Simplicity was an ideal that could be critiqued from multiple positions, whether it was from practical experience, artistic inclinations, or social criticism.

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<sup>215</sup> Edward Bok, "Taking Short Views on Life," *The Ladies' Home Journal* (September 1908): 6.

Many social critics and architects perceived society and architecture becoming increasingly complex throughout the nineteenth century. Before the Civil War, the ideology of republican simplicity presented a paradoxical vision of being productive in manufacturing while abstaining from luxuries. After the war, American industry exploded and cities were flooded with poor immigrants who competed with native poor classes, such as African Americans recently freed in southern states. Social tensions in cities like Chicago turned into violent strikes and protests at the same time tall office buildings by Jenney and Sullivan had architectural tensions between the structural frame and the cladding.<sup>216</sup> Social and architectural members clashed, resulting in frictions and conflicts that perhaps returning to earlier, simpler times could offer solutions.

Numerous arts & crafts colonies responded to this conflict and appeared at the periphery of major American cities. William Price led a group of artisans at Rose Valley, located outside of Philadelphia.<sup>217</sup> The sculptor Lorado Taft established Eagle's Nest in Oregon, Illinois, west of Chicago, with the assistance of Irving K. Pond.<sup>218</sup> These societies were essentially communes, with members growing food, sharing meals, and producing artifacts to sell back in the cities. The artist colonies

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<sup>216</sup> Merwood-Salisbury. See Note 31.

<sup>217</sup> William Smallwood Ayres, *A Poor Sort of Heaven, a Good Sort of Earth : The Rose Valley Arts and Crafts Experiment (1901-1910)* (1982), text; George E. Thomas, *William L. Price: Arts and Crafts to Modern Design* (New York: Princeton Architectural Press, 2000), text.

<sup>218</sup> Jan Stilson, *Art and Beauty in the Heartland : The Story of the Eagle's Nest Art Colony at Oregon, Illinois, 1898-1942* (Bloomington, Ind.: AuthorHouse, 2006), text.



also harken to experiments in Europe, such as C. R. Ashbee's Handicraft Guild in England or Hellerau, Germany, as a competitive means of production to factories, but the social membership was one that stabilized society in a way the parent cities had difficulty achieving.<sup>219</sup> These designers found society lacking the simplicity of the past but that only meant they had to revive past simple virtues back into contemporary society by engaging it, not by living in isolation.

Many designers who sought simplicity were idealists, but that did not make them escapists. Stickley, for example, worked hard to expand his furniture company in western New York into an architecture office and publishing company located in New York City. His ambitions stretched his assets thin and the company was bankrupt in 1916. Nonetheless, he produced furniture and houses embodying his vision of American simplicity and they continue to be artifacts fetching high prices in auctions and real estate sales in cities and towns across America.

Given the various approaches and interpretations on simplicity, it is impossible to conclude with one magic formula for designers to follow. However, three common themes appear through most of the chapters as ways to define a design as simple. First, simplicity sought standards from the past that could still apply to the present because ethically and aesthetically they are perennial principles.

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<sup>219</sup> Edward Ford touches on this point. Edward R. Ford, *The Architectural Detail*, 1st ed. (New York: Princeton Architectural Press, 2011). Ashbee lectured in Chicago to the Arts & Crafts societies and visited Rose Valley. See Alan Crawford, *C.R. Ashbee: Architect, Designer & Romantic Socialist* (New Haven: Yale University Press, 1985), text.

Second, architecture publications, technical manuals, and popular journals identified and prescribed basic practical solutions for construction and daily activities, indicating standards that led towards simple living. Third, simplicity was a standard for what I shall call “quiet” architecture – meaning architecture that appears familiar and not ostentatious. All three themes on simplicity address relations between architecture, ideas, and people that are practical, beautiful, and having various degrees of subtlety. Given these challenges, simplicity was a high standard for American architecture to reach.

### **Simplicity from Historical Standards**

Simplicity developed relations between the past and present by recalling the ancient antecedents and/or turning to vernacular traditions. These relations were contrived in unusual ways by architects and critics. Henry van Brunt for instance defended the architects of the White City by claiming their appropriation of classical precedents were derived from classical standards of beauty, and it was only natural that American architecture should revere it.<sup>220</sup> At the same time, there were certain architects who sought to break free from European precedents - notably Louis Sullivan and Frank Lloyd Wright. Although Sullivan and Wright did not openly

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<sup>220</sup> Henry van Brunt, "The Columbian Exposition and American Civilization," in *Architecture and Society: Selected Essays of Henry van Brunt*, ed. William A. Coles, 305-318 (Cambridge, MA: Belknap Press of Harvard University Press, 1969).

acknowledge a debt to American vernacular architecture, both designed houses which suggest their awareness of it. Sullivan's designs for his own house and the Charnley-Norwood House in Ocean Springs, Mississippi, clearly owes a debt to vernacular traditions by orienting the house to the Gulf breezes and cabin-like exterior appearance for a climate and setting strikingly different than Chicago [Fig. 6.1]. Wright's sister's house, Tan-y-deri, used balloon frame construction, although the use of linear wood trim on interior surfaces is unique to Wright. These architects appropriated standards and conventions, whether derived from appearance as in the case of Van Brunt or from a carpentry tradition as in Wright's case, into modern buildings and the relation between the two was conceived as simple.



**Figure 6.1** Louis Sullivan, Charnley-Norwood House, Ocean Springs, MS (1890); photo by author.

The historiography of architecture typically treats these two approaches as antagonistic, but simplicity did not take sides.<sup>221</sup> Ruby Ross Wood's critiques on architecture for *The Honest House* identified simplicity in classical houses, Arts & Crafts bungalows, large estates on Long Island and modest suburban cottages outside Philadelphia. She compared how all these houses adopted features of traditional building, whether it was from the Dutch houses built in early colonial New York or from the popular Greek Revival style in the early nineteenth century. Simplicity referenced the past whether from classical orders or vernacular forms as it was relative to the purpose, character, and scale of each building.

This was different than the historicism often associated with the nineteenth century. A. J. Downing's designs represent this characterization to a certain degree. Downing criticized Grecian [Greek Revival] houses because the purpose of the house did not equate with the purpose of the ancient Greek temple. Instead he preferred houses reminiscent of England, a Gothic appearance, though he avoided the association of Gothic domestic architecture with the cathedral. Although the appearances of houses were characterizations of architecture from the past, Downing realized that simplicity in American design was something other than style. He prefaced the designs with ancient design principles of symmetry and proportion,

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<sup>221</sup> Vincent Scully, for instance, considered vernacular architecture was the inspiration for simplicity of stick style architecture. Scully, lviii. Neil Levine suggested in conversation giving attention to Stanford White and the classical vein of American architecture from the period as a complement to the Arts & Crafts styles during a conversation at Taliesin in the summer of 2014.

which he threaded into the definition of simplicity.<sup>222</sup> Simplicity wove together different parts of the building together into a unity that was also covered with a historicist appearance. The relation between purpose and appearance was cladded in historical motifs, but the intention was to focus on simple arrangements and appearances appropriate for an American architecture.

Contemporary with Downing, Horatio Greenough criticized the Greek appearance of buildings because they did not reflect their use or respond to the setting. Greenough, “contending for Greek principles, not Greek things,” sought to unify the purpose of a design, its function, with its appearance without replicating the appearance of Greek forms.<sup>223</sup> Downing and Greenough recognized the limit of historicism in architecture as appearance even if they were unable to distance from it in practice. The simplicity these architects interpreted from history was overshadowed by the building’s surface appearance.

Looking beneath the outward appearance of nineteenth century architecture was difficult. Sigfried Giedion harshly criticized the White City at the 1893 Chicago Columbian Exposition because he believed the relation between classical motifs and modern construction had reached its nadir in architecture.<sup>224</sup> Henry van Brunt defended its classical appearance because the architects followed the high design

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<sup>222</sup> Downing, *The Architecture of Country Houses*. 41.

<sup>223</sup> Greenough, "Aesthetics at Washington." 22.

<sup>224</sup> Gidieon. 313-315.

standards established by the ancient Greeks. It was not the appearance of classicism as a motif that was important to van Brunt and his colleagues, but that the architecture followed a standard proven by its perpetuity from ancient times.<sup>225</sup> It was simple because it returned to the original principles of architecture: symmetry, proportion, and economy – the standards found in architecture throughout history – not because of its use of historicism. By the early twentieth century, American designers still returned to the ancient Greeks for inspiration on classical principles in architecture for simplicity.

Simplicity was a measure of economics in architecture dating back to the ancient Greeks. In Chapter Two, I laid out the ideas of economy and beauty defined by Aristotle and Xenophon. For Aristotle:

A master of any art avoids excess and defect, but seeks the intermediate and chooses this – the intermediate not in the object but relative to us.

If it is thus, then, that every art does it work well – by looking to the intermediate and judging its works by this standard...then virtue must have the quality of aiming at the intermediate. I mean moral virtue; for it is this that is concerned with passions and actions, and in these there is excess, defect, and the intermediate.<sup>226</sup>

Aristotle placed the standard for beauty not on the production of an object, but whether an object is excessive, deficient, or just right to each individual – “relative to us.” His example is the amount of food necessary for various bodies, an athlete needs more food than one who spends more time sitting, while the quantity of food may be

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<sup>225</sup> Henry van Brunt, "The Columbian Exposition and American Civilization."

<sup>226</sup> Aristotle. *Nicomachean Ethics*. 1106b 6-16.

excessive for a sitter, resulting in weight gain, the same amount may be perfect for the athlete. The standard of beauty is therefore in proportion and economy – proportion in the amount of food for a particular body and economical by considering the proper relation between food, the body, and the task. Thus when Xenophon described the economical house as one where the relations between artifacts and activities were properly placed in the house, items for major celebrations were located in one part of the house for major gatherings while items for everyday use were easily accessible in another. These relations identified the relativity to each house and its occupant.

When designing interiors, the ancient Greeks once again offered the means to relate surfaces with use. Helen Campbell, a lecturer on Home Economics at the University of Wisconsin-Madison, referred to ancient Greek economy in her published lectures from 1900:

The ancient Greeks, according to Plato, had four wishes: 1<sup>st</sup>, To be healthy; 2<sup>nd</sup>, To be beautiful; 3<sup>rd</sup>, To be rich honestly; 4<sup>th</sup>, To be gay and merry with one's friends. To this last end, the dining halls of their simple houses grew more and more elaborate in ornamentation. The Greek, however, had no pride in the appearance of his dwelling, and the banquet hall soon depended upon beauty of line and perfection of finish in structure rather than on any gorgeousness of furnishing.<sup>227</sup>

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<sup>227</sup> Helen Campbell, *Household Economics: A Course of Lectures in the School of Economics of the University of Wisconsin* (New York: G. P. Putnam, 1900). 44-45.

Campbell understood Greek interiors and economy to focus first on activities in the rooms with the architecture providing a background, not clashing with the activities, not as a “conversation piece” but that what it contained had a function.

It was similar to Xenophon when he wrote that the economical house was not “fretted with ornaments” on the ceilings or walls. The walls of simple American architecture typically had more ornament than Xenophon described, but simple wall surfaces did limit the applied ornament on interior and exterior surfaces. Interior walls had striped paper patterns or painted in solid colors. Exterior walls had flat surfaces with subtle brick patterns or plain backdrops to a few necessary building elements, such as window trim or downspouts, embellishing the elevation. Architects who embellished structural and practical elements of the wall presented a hierarchy not too different from domestic hierarchy of the ancient Greek house. All the building elements and natural conditions were in proper relation to the performance of the building.

Architects also returned to the past to express the relations between material properties and construction assemblies. When construction shifted to iron and steel, architects seeking simplicity sought ways to make distinctions in the assembly from wood and stone. This theoretical position in construction drew from Viollet-le-Duc’s interpretations on how the ancient Greeks expressed construction – that the construction was an expression of the building material being used. William Price and Irving Pond considered ancient architecture to be honest because the means of



assembly responded to structural forces. Price's key joints in tables used friction to lock the joint just as the corbelling of Greek cornices used gravity to hold the pieces together. Pond desired honest construction for different materials; Greek architecture was honest because the post and lintel system reflected how the assembly transferred the forces to the ground whereas steel columns should be continuous because the material made it possible and it made a distinction from stone. By returning to how primitive structure worked, architects could express properties of new building materials through construction.

The ability to express construction had ancient precedents as well in terms of simplicity in cladding. Gottfried Semper provided a theoretical approach for architects to conceive cladding as a fabric that could be treated differently than structure and could be ornamented. Semper considered the first architect to be a *wandbereiter*, the partition-maker. John Root, who translated some of Semper's essays for Chicago's *Inland Architect*, wrote that the Greeks understood cladding as a contrasting material to the actual structure. Following the polychrome debate on ancient Greek architecture, which prompted Semper's *bekleidung* theory, architects accepted that the Greeks painted their temples. Root considered this a cladding distinct from the structural wall and still unified the surface. The ancients, as the architects for simplicity interpreted them, were able to make clear distinctions in construction and cladding by not confusing the two and expressing the construction according to the action of the forces within the structure.

The American comparison with the Greeks was not to imitate their temples or ornaments. In fact, designers of American simplicity were fulfilling the challenge Greenough posed when he praised Greek principles. Unlike Modernism's characterization of Greenough's statement as functionalism, he commented on the relation between purpose and appearance, not the expression of the two. The Greeks as understood by certain nineteenth century American architects exemplified this in their architecture. The architects mentioned above believed the Greeks reached the proper balance between purpose and appearance and established the precedents and standard which simple architecture would follow. There is no mention of style, but there were principles in construction, composition, and economy that persisted despite fashions or taste from a particular period in architectural history.

### **Standards from Published Standards**

Publications also provided another means towards simplicity in design. From the nineteenth to twentieth century, architects published pattern books offering house designs that could be tailored to fit every client. Technical manuals developed from carpenters instructing builders how to construct a house to architecture trade journals showing details for tall office buildings. Books shifted from empirical knowledge and rule of thumb to precise engineering calculations and quantifiable material

properties.<sup>228</sup> Even popular journals prescribed standards for simplicity as a means to direct certain behaviors and discern acceptable decorum. These standards all had a common theme: standards provided a base for simple living and building.

Simple living and building are interrelated even though they were often separated in two different kinds of publications. Simple living appeared in prescriptive literature featuring architecture. A. J. Downing's publications, both his books and *The Horticulturist*, exemplify this approach in antebellum America. It was followed by Edward Bok's *The Ladies' Home Journal* in the early twentieth century where domestic activities appeared next to house plans that Bok considered as examples to how these activities could be simplified in the American home. In terms of manifesting these ideals into built works, Downing touched on construction techniques in his books and Bok's architects concentrated on describing the arrangement and cost rather than the technical construction details.

Publications for the general public, such as Downing's books or Stickley's *Craftsman* articles included instructions on building walls, not only their outward appearance, but in accordance to their performance requirements as enclosures. The complex problems of cladding forced architects to devise simple walls to ease construction and provide clean surfaces for finishes. The enclosure has two different

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<sup>228</sup> Two examples spanning the study: Owen Biddle, *The Young Carpenter's Assistant or, a System of Architecture, Adapted to the Style of Building in the United States* (Philadelphia: B. Johnson, 1805). Frank E. Kidder, *Building Construction and Superintendence* (New York: W. T. Comstock, 1896).

surfaces, an exterior that protects the inside for the weather and an interior surface for the decorations in the room. The design between the exposed surfaces of the enclosure must consider thermal differentials between outside and inside temperatures, which lead to condensation and water penetration, and contain the structure supporting floors and exterior surfaces. Downing proposed a solution from traditional brick masonry practices of the Mid-Atlantic region. Gustav Stickley devised a similar wall construction out of concrete, but improved the design with a continuous air cavity (though he did not explain how the water would wick out of the wall). An enclosure was more than visual because it reconciled conflicting parts within the wall assembly. Publications from Downing and Stickley demonstrated a standard for the simple enclosure, one any homeowner or carpenter could build, required little maintenance, and kept the natural elements out of the building.

Technical simplicity appeared more frequently in trade journals, such as the carpenter's guides and later in professional journals such as Chicago's *Inland Architect*. *The Inland Architect* was one of the more notable examples from the nineteenth century because it is a primary source for studying the Chicago School, but *American Architect and Building News* (began 1876) appeared in Boston and the first professional journal on architecture appeared in Philadelphia - Samuel Sloan's *The Architectural Review and American Builder's Journal* (1868-1870).

Samuel Sloan was an architect who appealed to both the American public and professional colleagues through numerous means of publications. His

professional journal's title indicated how he critiqued buildings as well as provided articles on technical matters for the American builder. *Sloan's Constructive Architecture; a Guide to the Practical Builder and Mechanic* (1859) had the content of typical builder's guides from the eighteenth century by including information on carpentry, explaining the use of classical orders, and descriptive geometry problems.<sup>229</sup> He also published house designs catered to the general public that same year in his *City and Suburban Architecture* (1859).<sup>230</sup> Earlier, he combined the two audiences in *The Model Architect* (1852). *The Model Architect* contained illustrations of houses, designs for schoolhouses (as discussed in Chapter 2) and churches, wall sections and select details for construction, and wood framing techniques. The domestic architecture illustrations in his book followed the conventions in residential pattern books, showing plans and elevations, which would appeal to the general public while builders would have greater interest in the framing and construction detail drawings. Sloan's ability to address his audience of carpenters and clients alike

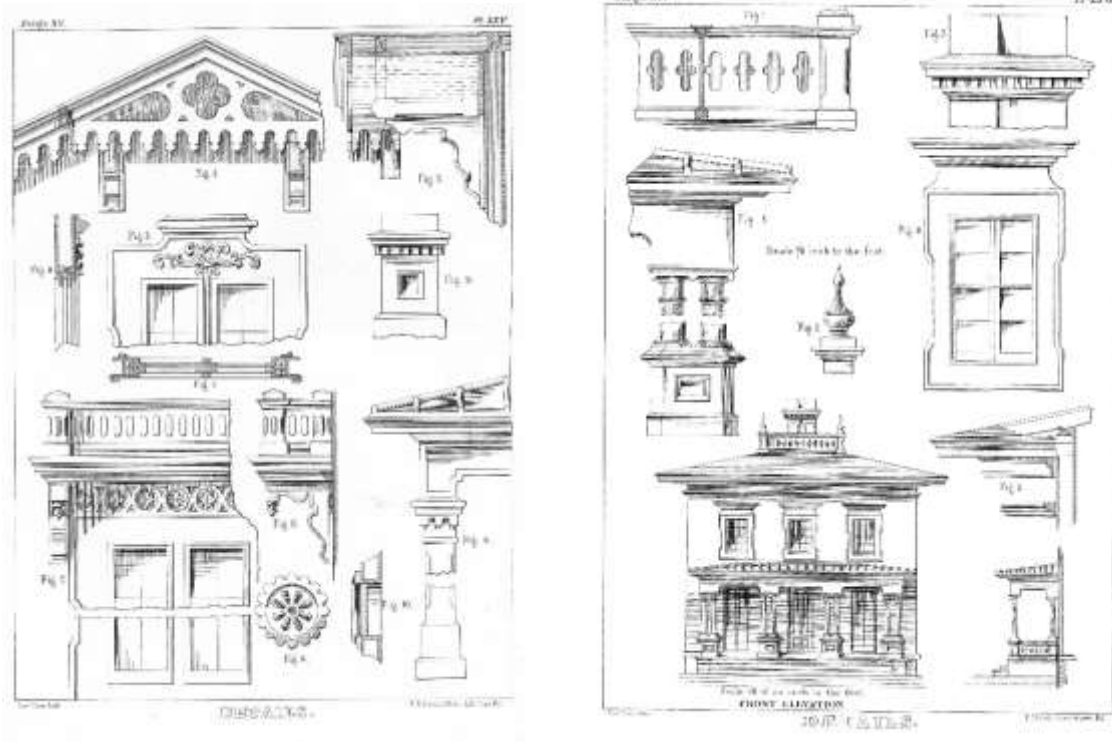
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<sup>229</sup> Samuel Sloan, *Sloan's Constructive Architecture; a Guide to the Practical Builder and Mechanic* (Philadelphia: J. B. Lippincott, 1859). For more on Philadelphia builder's guides and the distinction between builder and architect, see Upton, "Pattern Books and Professionalism" and Michael J. Lewis, "Owen Biddle and the Young Carpenter's Assistant," in *American Architects and Their Books to 1848*, ed. Kenneth Hafertepe and James F. O'Gorman, 149-162 (Amherst, MA: University of Massachusetts Press, 2001).

<sup>230</sup> Samuel Sloan, *City and Suburban Architecture* (Philadelphia: J. B. Lippincott, 1859). Throughout the 19<sup>th</sup> century Sloan published several pattern books or subsequent additions to his earlier publications. *American Houses: A Variety of Original Designs for Rural Buildings* (1861); *Sloan's Homestead Architecture; Containing Forty Designs for Villas, Cottages, and Farm Houses, with Essays on Style, Construction, Landscape Gardening, Furniture, ect.* (1861).

enabled him to guide pattern book formats to make architecture accessible for everyone.

Sloan described many of his drawings in *The Model Architect* as simple because they needed no explanation (and then he wrote a paragraph or more explaining them) to builders and the general public. He selected certain features to his designs that are common details in architectural drawings sets today, namely window details, eave details, and wall sections [Fig. 6.2]. Instead of noting the drawings as architects do on a construction set, the notes appeared in the written specifications following the general description of the design. This meant the drawing was clear to client and builder because the client read the description and the contractor read the specifications, and both read the drawings as the common means of communication. The complexity of the design was parceled out in written description and the simplicity of the drawings – their clarity for both parties – meant that the general public, architects, and builders could each interpret the complexity of the design to the various limits of their knowledge. Sloan's book anticipated how shelter magazines asked architects to submit designs to a general audience and participated in the shift from builder's guides to pattern book architecture for a variety of building types.



**Figure 6.2** Samuel Sloan, “Details for a Plain House” from *The Model Architect* Vol. I (1852).

There were two distinct kinds of audiences in mind for architecture publications. One was for the general public, which Stickley, Bok, and Downing addressed. While they included technical information on construction, their primary aim was to improve American cultural standards, and educating the public about architecture was one of the means to accomplish this end. The other was the professional audience of architects and contractors.

Pattern book architecture treated the complexity of a building program and determined the essential requirements for the building. Most scholarship

concentrates on residential pattern books, there were a variety of building types in architecture pattern books. Schools, for instance, had their own pattern books partly because of the desire to reform education during the nineteenth century and also because new western states like Wisconsin wanted to standardize the quality of school buildings based in the familiarity of country craftsmen in rural areas.

Educators discussed the practical considerations of school design including cost, comfort, and air quality across the country, from Thomas Burrowes in Pennsylvania in the mid-nineteenth century to the Wisconsin Department of Education around 1900. The intention was not only to beautify the buildings, but to make them more practical. The one-room schoolhouse actually had several spaces: a separate vestibule for boys and girls, a teacher's platform, and a library. School plans partitioned the space so alcoves and closets had minimal intrusion to the classroom. These rural practices, developed by education reformers and architects, helped established standards in school planning into the twentieth century.

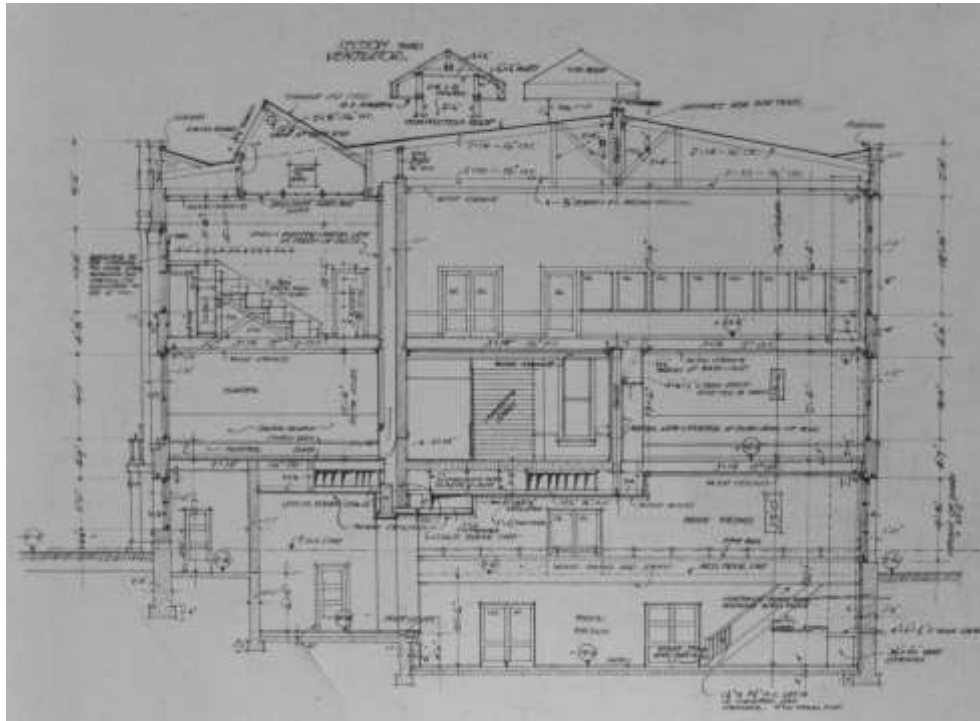
Mount Horeb High School (1918) by the Madison architecture firm Claude & Starck in Wisconsin continue the standard arrangement outlined in the circular from 1882 [Fig. 6.3]. The circular insisted that boys and girls have separate staircases.<sup>231</sup> The stairs defined gender-specific wings. On the left side of the plan, the boys' manual training room, locker room, and restroom were at the ground level, the boy's

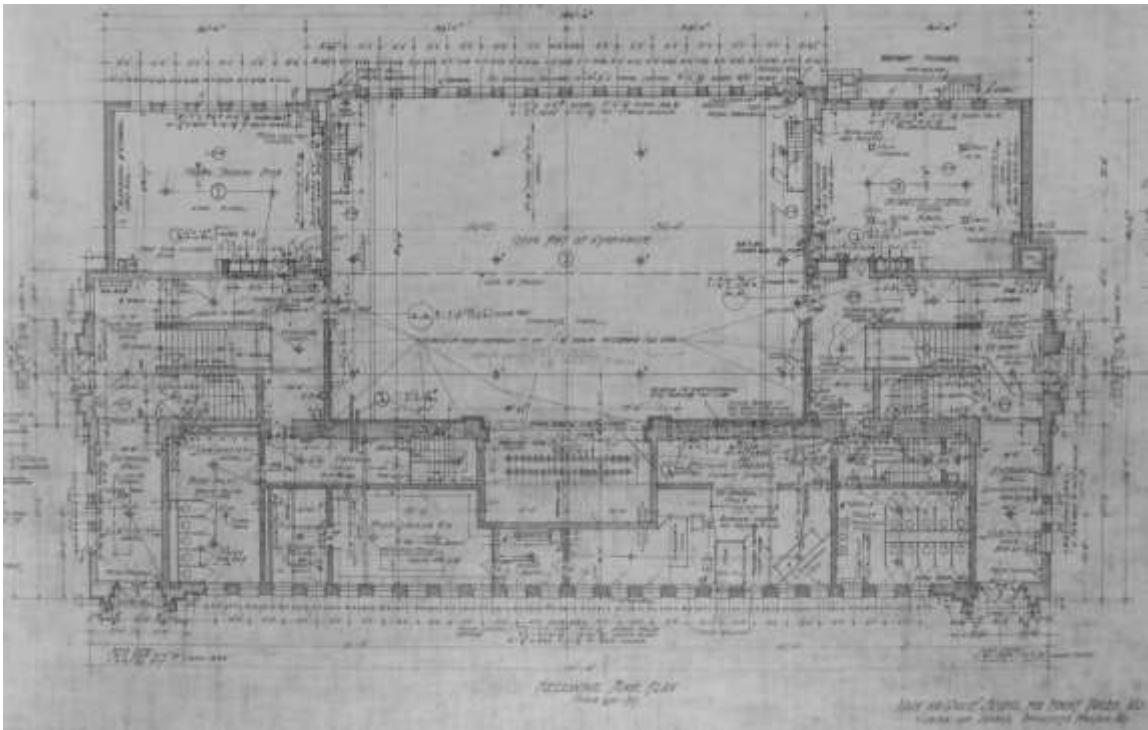
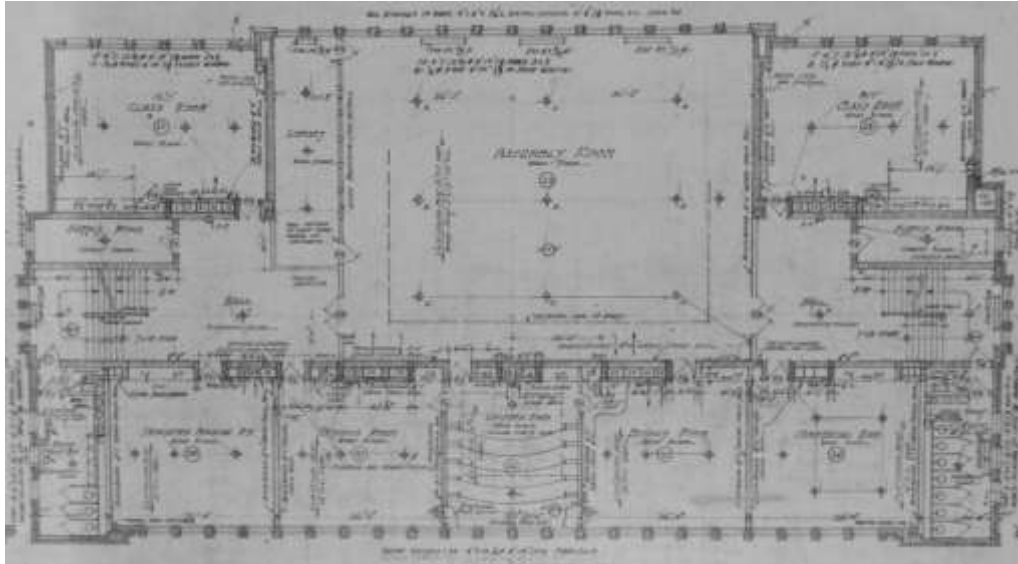
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<sup>231</sup> Whitford. 19.



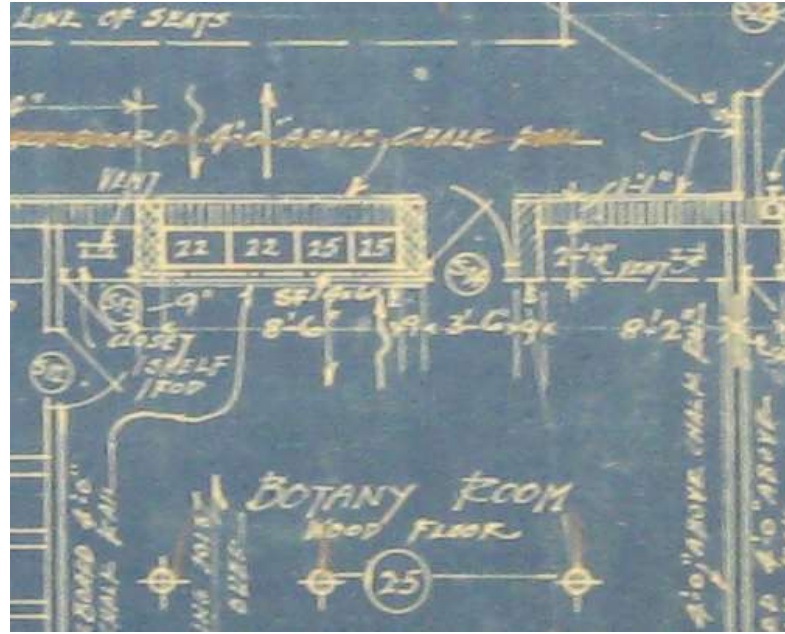
restroom was stacked above the ground level for plumbing efficiency to the top level. At the top level to the right side of the plan was a commercial room for women and the girl's restroom stacked on three levels. On the ground level, mirroring the boys' manual training room in area, was the home economics classroom and girls' locker room. The staircase established vertical continuity for the two sexes and defined the location of gender specific classrooms. This separation was only for certain activities but allowed for ease in moving between classes and floors when the bell rang. Typical classes, kindergarten, hallways, the gym, and assembly hall were shared rooms. The plan was economical by allocating distinct spaces at the ends of the building so that common areas occurred in the middle.





**Figure 6.3** Claude & Starck, Mount Horeb High School, Wisconsin, 1918 (Louis Claude Papers, Northwestern Architectural Archives, University of Minnesota Libraries). Previous page: Transverse section through building; This page: Top floor plan [top] & Ground floor plan [bottom].

Given the size of the building, the traditional heating plant for a one room schoolhouse consisting of a small stove with overhead pipe was hardly adequate, but the efficient planning principles of utilizing the thickness of walls as utility spaces continued. In the Mount Horeb High School the heating plant was in the basement and to limit the run of the ducts the majority of the ductwork ran up a single wall [Fig. 6.4]. Hot air flues ran through the partition separating the classroom from the corridor. Each duct chase had four ducts, a pair of supply and return air for spaces on either side of the partition. On the classroom side, the chase wall consisted of wood studs, lath, and a plaster finish. The assembly side was a 13" brick wall with a plaster finish. Even the depth of the wall used a different material; the ends of the chase were concrete block, again with a plaster finish. The material selection had a number of practical choices. The brick wall is a bearing wall supporting the floor joists and a roof chord brace. The plaster and brick combination also decreased the sound transmission from the assembly hall and corridors to the classrooms. Coat and storage closets were carved out of the remaining thickness, which continued the finished plane of the classroom wall, keeping the classroom inhabitable area in a regular shape, while increasing usable square footage for the room.



**Figure 6.4** Cluade & Starck, Mount Horeb High School interior partition (1918); Louis Claude Papers, Northwest Architectural Archives, University of Minnesota Libraries. (Note: North is down on the drawing.)

The larger school also addressed matters of security in its arrangement of spaces and corridors. Mount Horeb did not have a formal entry; the entrances were at the sides and into the stairwells. The descending stairs led to a hall in the basement as a foyer to the auditorium, which was also the gymnasium. It would be easy to rope off the ascending staircase to cordon off the remainder of the school. The library was also a secured space; it was an ancillary room to the assembly hall on the top floor. The assembly hall could be locked as well to prevent anyone from taking books. The assembly hall also had access to a lecture hall and botany classroom. Therefore expensive science equipment could be locked in cabinets and a

series of locked rooms. Claude & Stark carefully arranged rooms to provide the protection demonstrated in 1855, when Thomas Burrowes arranged the spaces for a one-room school to lock and secure parts of the building when not in use. The plan had a simple arrangement recalling the traditional schoolhouse in the region, yet addresses the complexity of a three-story building complete with gymnasium and library.

As school buildings increased in size, technical building problems were only derivative of commonly known construction techniques. The structural principles of a roof truss or the thermal principles to heat a school remained the same. The heating problem for a school at the scale of Mount Horeb was complicated, but observing the practices of heating small schools in Wisconsin as described in government circulars suggested means to efficiently lay out the piping with respect to the arrangement of rooms and activities. Publications such as builders' guides and pattern book literature provided conventions for building techniques that were familiar to local craftsmen as well as architects, but they were not the final product for a design. Standards in prescriptive literature and trade journals derived from simplicity provided a base of what was necessary for living and building, but it also allowed for elaboration and development.

### **Simplicity for Quiet Architecture**

There are numerous examples of simple architecture being quiet because the activities within and around it were highly active. An immediate association of “quiet architecture” would be the Quakers, who held their religious meetings in silence until divine intervention called one of them to speak.<sup>232</sup> Contrary to the roaring spirit animating a Quaker during a meeting, their physical presence was subdued in their plain clothing with little frills and muted colors. Their habits and their architecture were therefore one of non-distinction and non-distraction, which was covered in the previous chapter. A third important quality that was rather consistent for simple architecture places it in familiar surroundings, accommodated various functions, and be distinctive without being ostentatious.

Shaker architecture exemplified all three as can be seen in the meetinghouse at Pleasant Hill, Kentucky. The interior surfaces had wood wainscoting to protect the plaster from damage and it established the window stool height. A series of pegs wrap around the hall to support candleholders, chairs, broom, and cloaks, all practical items to decorate the walls [Fig. 6.5].<sup>233</sup> All of the architectural elements, the foundations, trusses, typical openings, woodwork, and white plaster walls, served

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<sup>232</sup> Another more contemporary example would be Louis Kahn and his statement that architecture exists between silence and light.

<sup>233</sup> The only pieces of trim that appear additive are the blue strips on the ceiling marking the location of the wood trusses in the attic. Functionally they are unnecessary because there should be no need to repair the plaster at those locations nor is there any reason to suspend objects from them.

the purpose of the room which was to house a sacred ritual. In this plain and serene interior Shakers acted out the unrestrained animation of a divine spirit.



**Figure 6.5** Micajah Burnett, Pleasant Hill Meetinghouse, Kentucky (1820); photo by author.

The interiors of simple architecture drew on the relations between artifacts and practices. During a period described by Veblen as “conspicuous consumption” the kinds of objects on display in shelter magazines such as *The Craftsman* and *The Ladies’ Home Journal* had practical use. In an editorial for *The Ladies’ Home Journal* on how a wealthy family still lived a simple life, Bok wrote, “One important idea was constantly kept in mind: what things this family could do without.” This family could afford an automobile and numerous toys for the children, but they rented a car when needed and the children had to exhibit considerable patience to demonstrate their desire for a particular toy. Thus, when the family did spend on luxury, it was

always appreciated rather than expected.<sup>234</sup> Bok's family appreciating the appreciating the luxuries is a secular version of a gift.

Interiors likewise had a quiet quality in that there was no ostentatious display on the walls or in the furnishings. The painting *Girl Waiting* was a quiet scene, in part because there was only one person in deep contemplation, and even with a variety of objects, no single thing, except the girl, drew our attention. The quietness of the room followed the hierarchy described by Fred Hamilton Daniels, who placed people above all objects, whether practical or decorative. American interior design tended to reduce the amount of objects in rooms in favor of balancing exposed wall surfaces and architectural trim with art, furniture, and fabrics as the commentary from *The Craftsman*, *The Ladies' Home Journal*, and *Indoors and Out* prescribed. These interiors were not devoted to a single décor style nor minimalism; the illustrations from these magazines had classical fireplace mantels flanked by Mission style chairs on Persian rugs. Furnishings may clash if designed around a particular style, but the commentators still considered the interior décor simple.

The purpose for a room still related to household activities but spatial distinction was subtler when interior partitions came down and the rooms opened to each other. Stickley's Craftsman houses, for instance, combined the entry, living and dining rooms into one room even though plans still labeled each individual area.

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<sup>234</sup> Edward Bok, "The Simple Life Amid Plenty," *The Ladies' Home Journal* XXII, no. 12 (November 1905): 18.



Built-in furnishings, such as inglenooks, sideboards, window seats, and bookcases defined the purpose of particular areas within the single room. The distinction of uses was still important, but space allowed for multiple activities.

Simple architecture had distinctions observable on the exterior as well. Downing's houses, for instance, were classified by social status of the owner, with a clear distinction between a workingman's cottage, a farmhouse, and a villa in terms of scale and the amount of ornament exhibited on the exterior. Yet even in his illustrations, Downing's houses looked as if they belong in the landscape and have forms one can compare to basic rural houses. Indeed, the houses display class distinctions in wealth and consumerism, but they also sit in the landscape rather than dominate the landscape. Even reformers scrutinized farmhouses to find common patterns for the efficient, practical, and beautiful farmhouse. Farmhouse designs appeared in a range of publications, from pattern books by Downing and Lewis F. Allen, to agriculture journals such as Downing's *Horticulturist*, the *American Agriculturist*, and the South's *The Cultivator*.

These distinctions and familiarities were also part of the simple architecture in the American city. Chicago architects designed for wealthy industrialists and major corporations, giving every building an identity. The Marquette Building by Holabird and Roche is unmistakable because it not only has its name over the door, but also has murals depicting the exploration of Marquette through Illinois and down the Mississippi River over the front doors [Fig 6.6]. Louis Sullivan's unparalleled

ornamental design on the corner the Carson, Pririe, Scott Building is so unique that even the Target Corporation had to yield to the design when positioning their logo [Fig. 6.7]. William LeBaron Jenney's facades are not quite as distinct, but his facades respond to the leasing of the building and the city street – Ludington Building [Fig. 6.8]. A hundred years later these buildings still define the character of Chicago architecture and yet as buildings in the city, the scale of their identification, the ornament, is at the scale of the street rather than the scale of the city.



**Figure 6.6** Holabird & Roche, Marquette Building, Chicago (1895); photo by author.



**Figure 6.7** [Left] Louis Sullivan, Carson, Pririe, Scott Building, Chicago (1899); photo by author.

**Figure 6.8** [Right] William LeBaron Jenney, Ludington Building, Chicago (1891); photo by author.

Even the Arts & Crafts houses were still humble in their surroundings despite their idiosyncratic nature. Stickley and Bok envisioned their houses spreading across the country, being adaptable to any neighborhood and working within the developed fabric of the city or suburb. More idiosyncratic houses like those designed by William Price in Rose Valley outside Philadelphia also blended into the setting [Fig. 6.9]. Even today it is difficult to photograph the houses as the thick laurel bushes and topography conceal the structures. Their relation to each other, the slope of the land, and the street help mediate the playful ornament found on their exteriors. Each house is different, but the neighborhood has a relation between the individual houses

as an ensemble reflecting the nature of the individual artists who once lived in the colony.



**Figure 6.9** House in Rose Valley, PA (date unknown); photo by author.

Quiet architecture can be distinctive like the entry to the Carson Pirie Scott Building or it can be subdued like the houses in Rose Valley. It can have can be structurally innovative like the tensile roof truss for the Pleasant Hill meetinghouse or it can follow traditional trabeated construction like Jenney's Ludington Building. The possibilities for quiet architecture above sound similar to Downing's description of simplicity and subsequent critiques of the term – it can be anything one wants it to be. However, defining quiet architecture precisely lies in two possibilities, each in common with the high standard of simplicity. First, quiet architecture may have

innovative features, such as utilizing new construction techniques or materials, but these features are not the central design feature in the overall building. Second, if there are distinctions between the building and its environment, those distinctions typically occur at the scale of a person's perception from the ground, not much higher than the head of the door or picture rail of a room. This suggests that simplicity in quiet architecture relates an unassuming physical presence with an intellectually complex personality – not that different from the girl in *Girl Writing*.

### **Simplicity is a High Standard**

There are a few general conclusions to be drawn from each chapter that challenge common assumptions about simplicity in American architecture. One is that simplicity was not insincere rhetoric for the nineteenth to early twentieth century. The architects who spoke on simplicity saw it as an ambition for American architecture. Buildings and designs classified as simple varied considerably; some buildings had plain appearances and others were more ornamental, such as the difference between Solon Robinson's farmhouses and Stickley's Craftsman houses. This means simplicity cannot be reduced to minimalism or a style, which was the critique and legacy mid-twentieth century historians left us.

Each chapter of this dissertation addressed various interpretations of simple architecture in accordance to the design phasing of a building. The phases began

with economy, the planning of a building, where arranged rooms with clear purposes, such as dining or sitting, allowed the building to grow with additions. The chapter on construction considered simplicity by looking to ancient examples of building, balancing between plain and ornamented construction, and the critique of false construction pretending to follow the ancient techniques of construction with respect to building materials. The simplicity of cladding accounted for structure, its erection, thermal and moisture control as well as the exterior appearance of the building's walls. The interiors returned to themes similar to economy by looking at the purpose of the room as a finished space. Simplicity unified purpose and appearance by relating how one lived in a building to the architecture, thus becoming a standard in which designers used to measure their ability to approximate the idea of being simple with the manifestation of design suited to the building's purpose. Simplicity, as a high standard, still evokes an aspiration in contemporary American practice.

The desire for simplicity in American architecture has not left us. When I worked in an architecture office while writing this dissertation, about 100 years after the period in this study, the phrase "keep it simple" was uttered several times a day. The office did not consider the word "simple" as the loaded term I presented here, but the design intention for simple architecture was part of the discussion. The phrase "keep it simple" captures the value of simplicity in American design. By keeping the design simple, it implies the initial design, before developing the details

of construction, was simple from the start. In other words, simplicity was not a reduction to the essential, but built up from the essential out of the ontological past into modernly established building practices to achieve quietness.

Simplicity established a design standard, not a minimal standard but a high one. It was an idea the above architects approximated as best as they could through economic planning, construction assemblies, the appearance of the enclosure, and interior decorations. Although simplicity may not be simple in the sense of formulaic method of practice, American architects from the nineteenth to early twentieth century who claimed their buildings were simple did so because the high standards established by history, traditions, and rituals for the building were related to its arrangement and construction.

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