

University of California, Santa Barbara

From the Selected Works of Lauren L. Gallow

2009

From Stoves to Juice Squeezers: Technology in the Modern Home, 1869-1999

Lauren L. Gallow, *University of California - Santa Barbara*



Available at: <https://works.bepress.com/lgallow/10/>

FROM STOVES TO JUICE SQUEEZERS: TECHNOLOGY IN THE MODERN HOME, 1869—1999

Lauren Gallow, *University of California, Santa Barbara*

Research paper for *Topics in Modern Architecture: Domesticity + Interiority*, Graduate Seminar, Professor Volker Welter, Department of Art & Architectural History, UC Santa Barbara, Santa Barbara, CA, Fall 2009

Abstract

“The factory and the household have only one factor in common, but a crucial one. Both must improve organization and curtail waste labor.” So Siegfried Giedion opens the chapter ‘Mechanization Encounters the Household’ in his 1948 seminal text, *Mechanization Takes Command*. Likening the household to the factory in its ever-present quest for organization and labor efficiency, Giedion places technological advancements at the center of this domestic mechanization, a progression that he identifies as beginning in the 1860s. Technology has played a central role in how writers from the late nineteenth century onwards have envisioned the home. Beginning with Catharine Beecher and Harriet Beecher Stowe’s *The American Woman’s Home* from 1869, and ending with Akiko Busch’s *Geography of Home* from 1999, I will examine various manuals, guidebooks, and other texts on the domestic space to uncover how technology figures into these diverse conceptions of the home. By analyzing how each of these writers represents technology, both in image and text, I will consider the shifting meaning and significance of technology in the home. Whether these authors are championing technological advancements, or ignoring their place in the domestic sphere altogether, it is clear that ideas about the mechanization of the home are anything but stable. Instead, these writings signal an ambivalent and shifting attitude among nineteenth- and twentieth-century authors about the role of domestic technology.

“The factory and the household have only one factor in common, but a crucial one. Both must improve organization and curtail waste labor.”¹ So Siegfried Giedion opens the chapter ‘Mechanization Encounters the Household’ in his 1948 seminal text, *Mechanization Takes Command*. Likening the household to the factory in its ever-present quest for organization and labor efficiency, Giedion places technological advancements at the center of this domestic mechanization, a progression that he identifies as beginning in the 1860s. Not only within the space of the domestic interior, but also in the very techniques and materials used to construct that interior, technology has played a central role in how writers from the late nineteenth century onwards have envisioned the modern home. Beginning with Catharine Beecher and Harriet Beecher Stowe’s *The American Woman’s Home* from 1869, and ending with Akiko Busch’s *Geography of Home* from 1999, I will examine various manuals, guidebooks, and other texts on the domestic space to uncover how technology figures into these diverse conceptions of the home. By analyzing how each of these writers represents technology, both in image and text, I will consider the shifting meaning and significance of technology in the home. Whether these authors are championing technological advancements, or ignoring their place in the domestic sphere altogether, it is clear that ideas about the mechanization of the home are anything but stable. Instead, these writings signal an ambivalent and shifting attitude among nineteenth and twentieth century authors about the role of domestic technology.

In identifying domestic organization and the reduction of household labor as the two perennial goals of the domestic space, Giedion makes the introduction of technology into the home seem like a natural and inevitable development. If the homemaker has forever been trying to optimize household space and labor, then technological

advancements in the form of appliances and mechanized processes that speed up and simplify domestic work would seem to be a welcome addition to the home. Further, in linking the mechanization of household work processes to those two distinct goals, Giedion seems to imply that technology's only purpose in the home has been to answer this desire for efficiency and speed. However, as the authors I will discuss have shown, while this is true in some cases, domestic technology can also hold a wide range of alternate meanings, from being a signal of progress, to one of nostalgia, and even functioning as a sign of regression. Although Giedion characterizes the influx of technological devices and systems developed during the late nineteenth century as holding the "promise of the future"ⁱⁱ for the homemaker and the domestic space, subsequent writers questioned this forward-looking optimism about technology.

For many writers on the home, however, this "promise of the future" was exactly what technology seemed to embody. Catharine Beecher is often identified as one of the earliest writers to enumerate the processes and devices needed for an efficient domestic space—an efficiency that enthusiastically embraced technological advancements. In 1841 Beecher published a *Treatise on Domestic Economy*, which she described as a "text-book" on domestic practices, meant to train women in the particularities of household tasks.ⁱⁱⁱ The popularity of Beecher's treatise led to her expansion and elaboration of the text with her sister, Harriet Beecher Stowe, who together published *The American Woman's Home* in 1869. The book gave detailed instructions on household organization, including optimal plans and layouts for the rooms of the home, as well as suggestions for the most modern household devices that would "economize time, labor, and expense," as Beecher puts it.^{iv} An avid proponent of education for women and an outspoken critic of

the undervalued roles of women in society, Catharine Beecher sought to elevate the American woman to her full potential through the vehicle of domestic responsibilities. In this way, Beecher envisioned the optimization of household labor, often through the inclusion of new technological devices, as the “promise of the future” not only for the household, but also for the female homemaker.

For Beecher, then, technology certainly represented a means of pushing both the home and the homemaker into the future. Much of *The American Woman's Home* is devoted to describing organized and efficient domestic floor plans that advocate a flexible and multifaceted use of space. For example, in her description of the large main entry room of the home, Beecher illustrates a movable screen that could be incorporated into the space so that the single room may be “made to serve the purpose of several rooms.”^v As seen in this example, Beecher’s descriptions of efficient organizations of space are often achieved through the incorporation of new devices and apparatuses. Indeed, much of *The American Woman's Home* is devoted to describing the new mechanical devices that began entering the home in the late nineteenth century. In fact, one of the main additions to Beecher’s original treatise that featured largely in *The American Woman's Home* was the score of illustrations picturing designs for these modern devices.^{vi} From movable screens to shoe racks to storage boxes, the Beecher sisters go into great depth describing and illustrating what they identify as the most modern and efficient domestic devices. Thus, instead of focusing exclusively on the tasks and responsibilities within the domestic space as Beecher’s earlier treatise did, *The American Woman's Home* just as strongly emphasizes the technological accoutrements

that can help the woman carry out these domestic responsibilities in the most efficient way possible.

One of these technological devices most elaborately described and illustrated by Beecher is what she calls “the model cooking-stove” (Figure 1). Acknowledging the shift towards these new cooking devices and away from the more rudimentary method of preparing food over an open fire, Beecher writes, “The most common modes of cooking, where open fires are relinquished, are by the range and the cooking-stove.”^{vii} Describing her model cooking-stove as “constructed on true scientific principles,” implying that it was the most technologically advanced of its kind, Beecher further exalts her stove by linking this technological superiority to its ability to “unite convenience, comfort, and economy in a remarkable manner.”^{viii} Thus, technology for Beecher in this example is cast as the most ideal means of optimizing both the time and money spent in the modern kitchen. In the illustration for her stove, Beecher includes notations of the various functions that have been efficiently combined into one streamlined device, such as a roaster, a baking cover, and a hot water reservoir. In this way, Beecher’s description and consequent illustration of her model cooking-stove reads almost like an advertisement, as Siegfried Giedion notes that an advertisement for a comparable stove from 1848 similarly emphasizes its multifunctional and combinatory nature (Figure 2).^{ix} Pictured with all of its doors open, the advertised stove reveals to the reader its myriad uses and functions in much the same way that Beecher’s labeled drawing does.

This advertisement-like quality of Beecher’s drawing signals that in many ways, technology in the home during the late nineteenth century was much like the advertisements promoting it—an ideal that was available only to those who had the

means to purchase it. Historian Susan Strasser points out that although most of the major domestic appliances were invented before 1900, this did not necessarily mean that technological advancements had been universally diffused into the American home. For those of more modest means, Strasser holds that the most modern technological devices existed only in the realm of fantasy and imagination.^x Indeed, Beecher spends a great deal of time trying to justify the relatively high cost of her new modern stove, insisting that the durability and efficiency of the stove more than make up for the higher cost involved. Ultimately, Beecher's drawings, like many of the advertisements for the latest mechanical devices from the late nineteenth century, reflected prescriptions for what a more advanced household *should* be, rather than accurately portray the reality of technology's integration into the home. In any case, it is clear that Beecher's model cooking-stove, along with the host of other mechanical devices she describes in her text, represented the highly desirable future of a more technologically advanced household.

A mere thirty years later, however, Edith Wharton and Ogden Codman in their 1898 *The Decoration of Houses* view this growing technological optimism with somewhat of a skeptical eye. Focused on instructing their readers in the most appropriate ways to decorate the home, even going so far as to call for a large scale reform in home decoration, Wharton and Codman never directly address the issue of technology's place in the modern home. Tracing a distinct historical development of the home in terms of both decoration and architectural design, Wharton and Codman offer a historically grounded perspective on what the modern house should look like. Strangely, though, a discussion of technology and its place in the home is virtually absent from this history told by Wharton and Codman.

Discussing a range of both public and private rooms in the house, Wharton and Codman tellingly avoid one of the areas of the home where technological appliances were becoming most prevalent—the kitchen. Siegfried Giedion begins his chapter on mechanization encountering the household with the kitchen and the technological appliances introduced there—the kitchen for Giedion, then, becoming a kind of threshold or entryway for the introduction of technology into the home. Likewise, in *The American Woman's Home*, Beecher goes into great detail about the layout and mechanical devices in the kitchen and its accompanying stove room—the combined dimensions of which made up a sizable portion of the illustrated floor plan for Beecher's ideal Christian house. The kitchen, however, does not even make it into the list of rooms treated in Wharton and Codman's book—the authors make only a few passing references to the kitchen in the chapters on the dining room and the hall, and nowhere do they mention the kind of work done in the kitchen. The exclusion of the kitchen could be seen to signal a kind of uncertainty or apprehension on the part of Wharton and Codman about the growing mechanization of household work that seemed to find its starting point in the kitchen.

Indeed, another thirty years later, in Emily Post's *The Personality of a House* from 1930, the kitchen is also subject to a kind of selective amnesia. In the chapter where she details each room of the house and offers prescriptions for their ideal arrangements and decorations, Post devotes a mere five paragraphs to the section on the kitchen—a length comparable to the sections on dressing rooms, writing tables, and dog benches. The kitchen is absent from the summary in the table of contents that lists the major rooms discussed in this chapter, and even the bathroom gets more attention from Post than the kitchen. However, unlike Wharton and Codman, Post does describe the kitchen, and it is

in fact the only room of the house that features any sort of technology. Post writes, “Every kitchen must [...] have proper equipment including a good range and a clean and adequate icebox.”^{xi} In the section on kitchen floors, Post also makes a passing reference to the use of electric irons versus stove-heated irons. Technological devices, then, find their only place in the kitchen, and even then they are somewhat glossed over in Post’s account of the ideal home. In fact, according to Siegfried Giedion, by the 1930s, the kitchen would have experienced a complete infiltration not only of large kitchen appliances like the range and the icebox, but also of small mechanized tools such as egg beaters and apple corers.^{xii} Post’s abbreviated description of mechanical devices, then, suggests a kind of ambivalence about the place of technology in the home, as Post acknowledges technology’s usefulness, but offers only a minimal description of it. By the 1930s, kitchens were becoming standardized into what Giedion refers to as the “streamline kitchen” where all the component parts were related and could fit together easily (Figure 3).^{xiii} In her discussion of how to express one’s personality through the home, then, it would make sense for Post to sidestep a room in the house where mechanical standardization had become the norm.

In the chapter titled “The Style We Know As Modern,” however, Post takes a more direct stance *against* technology in the home. In her scathing review of Modern design, Post cries out against what she identifies as Modernism’s attempts to make over the home into a factory, driven as it is by “motives furnished by machine shops.” She goes on to lament this style’s penchant for “steel tubing bent in a continuous squared loop to create legless chairs, [and] factory whistles projecting from ceiling beams,” diagnosing this machine driven design as anything but homelike.^{xiv} Although Post seems to tolerate

technology in the home in small doses of kitchen appliances, she vigorously objects to what she identifies as the Modern style's wholehearted embrace of mechanical processes and industrial materials in designs for the home. Technology for Post, then, seems to embody the antithesis of the home and homelike qualities, as the standardized and impersonal nature of technology can never reflect the homeowner's individual personality in the way that Post advocates.

This charge of mechanically produced objects being inferior in some way to their more traditional counterparts also resonates in Wharton and Codman's text. Although as already mentioned, Wharton and Codman never address technology in the home directly, they do offer a veiled, somewhat oblique criticism of machine production methods. Highly critical of excessive ornamentation in the home, including the accumulation of superfluous "bric-à-brac," Wharton and Codman find the most offensive knick-knacks to be those that are machine-made. They suggest that mechanical processes have contributed to the emergence of "the worst curse of modern civilization—cheap copies of costly horrors." They then put these machine-made copies in contradistinction to objects of "good artistic workmanship," which are more costly and rare because they are handmade.^{xv} The authors go on to link the "debasement" of artistic ornaments to "the substitution of machine for hand-work [which] has made possible the unlimited reproduction of works of art."^{xvi} In championing the handcrafted art object over trashy, debased, machine produced ornaments, Wharton and Codman offer an indirect criticism of what they believe have been incorrectly labeled as technological "advancements" in terms of domestic knick-knacks. Although they do not overtly address technological devices in the home, Wharton and Codman nevertheless express a sense of skepticism

about the way mechanization has seemed to infiltrate the household in more ancillary ways.

Observing the growing mechanization of the home in the years following the writings of Wharton and Codman and Emily Post, Bernard Rudofsky's 1955 criticism of technology in the home is correspondingly even more severe and biting. In *Behind the Picture Window*, Rudofsky overtly states what Wharton, Codman, and Post only hinted at, as he writes that one of his aims is "to demonstrate that the essential qualities of the livability of the house are not, or only indirectly, related to technology."^{xvii} In fact, technology for Rudofsky seems in many cases to be in direct opposition to a comfortable and satisfying domestic life. Throughout his book, Rudofsky suggests that technology has not only altered domestic labor, but that it has in fact impacted virtually all aspects of home life, and not necessarily in a positive way. In fact, the reliance on technology ultimately symbolizes somewhat of a regression for the modern American in Rudofsky's view.

Fittingly, Rudofsky begins his analysis of modern American domestic behavior and its troubling over-reliance on technology in the kitchen. Rudofsky seems to have found this room in the home the most disturbing in terms of technological "advancements," as is signified by his decision to begin the book with a discussion of the kitchen. In fact, Rudofsky even opens this chapter by stating, "The kitchen takes precedence over the other rooms in more than one way; it was, and sometimes still is, the life center of the house."^{xviii} Perhaps because of this position as the "life center," the influx of technological devices and the mechanization of labor are even more dismaying in the kitchen than in any other room.

Like writers before him, Rudofsky seems to acknowledge the kitchen as the space where technology is the most densely concentrated, as he writes how the room “bristles with machinery for heating, cooling, freezing, ventilating, drying, and washing.”^{xix} Here, we can see that by the 1950s when Rudofsky was writing, mechanical devices had found their way into virtually all manifestations of domestic labor, especially in the kitchen. Not only does Rudofsky critique the mechanization of these acts of labor, but he also charges technology with mechanizing more basic human behaviors such as sleeping and eating. Ultimately, Rudofsky decries the loss of sensory interest that technology has brought about—especially in the kitchen, where “an obsession with short-cuts and labor-saving, with speed and novelty, has all but wrecked the very concepts of food preparation.”^{xx} While Catharine Beecher championed this sense of efficiency in the kitchen ushered in by technology, and Wharton, Codman, and Post essentially ignored it altogether, Rudofsky vehemently objects to technology’s infiltration into the household and its corresponding mechanization of the home dweller.

Rudofsky identifies technology as a symbol of the modern homemaker’s regression, as he believes mechanization has taken modern man far away from the direct sensory pleasure that he once experienced in his everyday activities. In her book *Geography of Home: Writings on Where We Live*, Akiko Busch also links technology to a backward-looking process, although Busch’s conception of domestic technology is more positively centered on nostalgia and memory rather than being a negative regression. In her 1999 book, Busch examines different rooms of the house and how people used those rooms at that moment in history, ultimately hoping to demonstrate that the home can reveal something about its inhabitants and how they live. Rather than being

prescriptive about what the home should do or be as the other authors I have mentioned thus far have been, Busch is more descriptive, as she seeks merely to reflect on the way Americans relate to their homes.

Technology figures largely into Busch's description of the average home, as she notes that it has become an integral part not only of our domestic activities, but also of our everyday activities outside of the home. Busch greets the technology in the home with decidedly less hostility than Rudofsky, as she suggests that it can be a source of comfort and convenience for the average homemaker, much in the same way that Catharine Beecher characterized domestic technology over 100 years earlier. Indeed, Beecher's claim that technological devices in the home such as the stove "unite convenience, comfort, and economy in a remarkable manner" could apply equally as well to the technologically advanced homes in Busch's writings.^{xxi}

Like Rudofsky, the kitchen for Akiko Busch is of primary importance—it is second on her list of rooms in the table of contents, and she notes how today the kitchen has become one of the central rooms of the home. Describing the kitchen as "the grandest interior," Busch even goes so far as to designate the kitchen as the hearth of today's home.^{xxii} Busch goes on to describe how technology has infiltrated the kitchens of today, even describing this room as a "laboratory." Without the bristling sarcasm of Rudofsky, Busch describes how the proliferation of appliances invading the kitchen have expanded the size of the kitchen, as she notes that today it has become one of the most prominent rooms of the home. Like Beecher and her description of the stove room, which was a separate room off the kitchen that was added to accommodate the particularities of this new modern cooking device, Busch correlates the size of the modern kitchen with the

plethora of technological devices that have found their place there. Rudofsky also notes how technology has shaped the character of the kitchen, albeit for him this is a negative effect, as he laments rather than celebrates the new multifunctional nature of the modern, mechanized kitchen.

For Busch, however, there is something highly captivating about the role of technology in the home as seen through the example of the kitchen. Although Busch points out that the multitude of kitchen appliances available today, from bread machines to pasta makers to coffee grinders, can often serve as mere status symbols for those aspiring for a “high-end household,” she also notes that these appliances can serve a different function for today’s home dweller. Busch writes, “At a time when every kind of food and drink is available prepackaged and ready to eat, we buy juicers for squeezing fresh oranges, electric coffee grinders to blend our own fresh-roast beans, compact ovens for baking bread, and pasta makers to extrude dough kneaded from scratch.”^{xxiii} She argues that choosing to spend more time in the kitchen on certain rituals of domestic labor can actually lead to comfort for today’s home dwellers, much in the same way that Beecher’s efficient, time-saving kitchen stove brought about comfort for the late nineteenth century cook. Ultimately, Busch claims, “we want the future in the kitchen, but not at the expense of the past.”^{xxiv} While Catharine Beecher characterized technology in the kitchen as a means of pushing the home into the future and making domestic labor more efficient, Akiko Busch holds that today’s kitchen technology is doing just the opposite: it is working to bring back kitchen rituals that are nostalgic and intentionally *more* time consuming.

It is impossible to ignore technology's place in the home today, as mechanical devices have become inseparable from our notions of home and of domestic activities. From stoves to vacuum cleaners to refrigerators, technological devices that were once entirely antithetical to idealized images of home have today become so naturalized that they are seen as essential domestic elements, even for the most basic of homes. The fact that this domestic technology currently finds one of its highest concentrations in the kitchen is a fitting endpoint for the story of technology in the home, as the kitchen and its progressive mechanization was for many twentieth century writers a source of much anxiety. Largely avoiding the kitchen altogether, writers such as Edith Wharton, Ogden Codman, and Emily Post were not so quick to embrace the technological optimism that seemed to find its starting point in the kitchen.

While some late nineteenth century writers like Catharine Beecher expressed a profound hopefulness about technology's role in bringing both the home and the female homemaker into the future—especially in the kitchen—by the 1950s, this optimism had experienced a complete reversal in the writing of Bernard Rudofsky, who decried the mechanization of the self that this barrage of technology seemed to bring about. By the turn of the twenty-first century, Akiko Busch signals that perhaps homemakers have found a happy medium for technology, embracing the convenience and efficiency of mechanical devices, but also using that technology to reclaim some traditional domestic rituals of the past. However, as all of these writers suggest, the understanding of domestic mechanization has not always been so balanced, as the connotations of technology in the home have drastically wavered between both extremes of optimism and pessimism. Much like the ever-changing mechanical devices they describe, writers on the home have

continually remodeled and reshaped their conceptions of how technology should be housed.

ILLUSTRATIONS

Fig. 37.

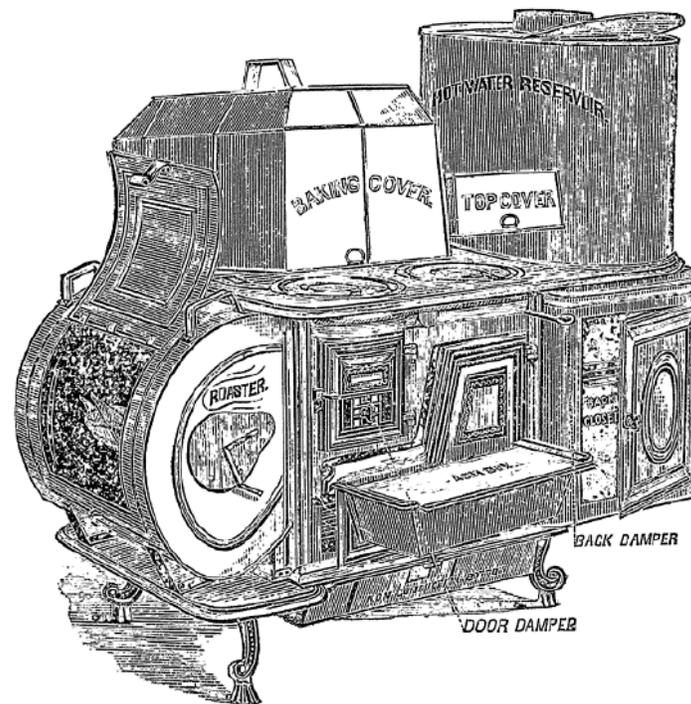


Figure 1 “The Model Cooking-Stove.” Catharine Beecher and Harriet Beecher Stowe, *The American Woman’s Home*, 1869

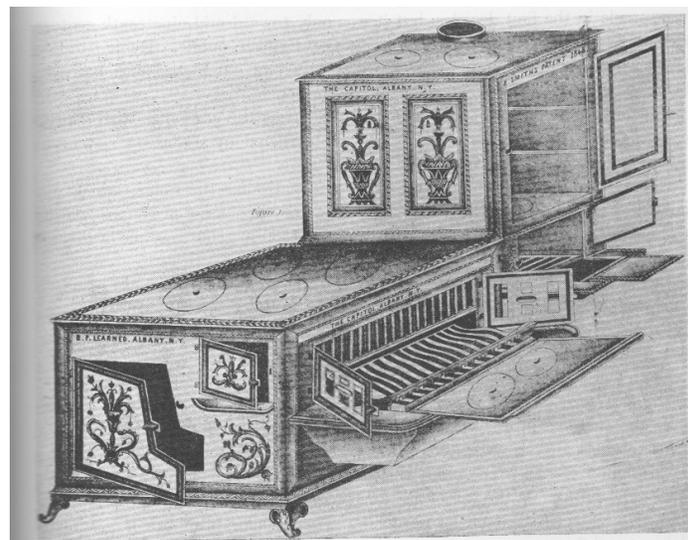


Figure 2 American Cast-Iron Range, 1848: “Two Stoves in One,”
Bella C. Landauer Collection.
Siegfried Giedion, *Mechanization Takes Command*, 1948



Figure 3 Standardized Units in the Mail-Order Streamline Kitchen, Sears Roebuck and Co. Catalogue, 1942. Siegfried Giedion, *Mechanization Takes Command*, 1948.

NOTES

-
- ⁱ Siegfried Giedion, *Mechanization Takes Command* (New York: Oxford University Press, 1948), 512.
- ⁱⁱ *Ibid*, 594.
- ⁱⁱⁱ Catharine Beecher and Harriet Beecher Stowe, *The American Woman's Home* (New York: J.B. Ford and Company, 1869), 15.
- ^{iv} *Ibid*, 25.
- ^v *Ibid*, 27.
- ^{vi} Kathryn Kish Sklar, *Catharine Beecher: A Study in American Domesticity* (New Haven: Yale University Press, 1973), 263. Sklar notes that both Catharine and Harriet contributed to the designs featured in these new illustrations, as many of the designs were drawn from Catharine's treatise, while others, such as the shoe bags, were conceived anew by Harriet.
- ^{vii} Beecher, 69.
- ^{viii} *Ibid*, 69.
- ^{ix} Giedion, 537.
- ^x Susan M. Strasser, "An Enlarged Human Existence? Technology and Household Work in Nineteenth-Century America" in *Women and Household Labor*, ed. Sarah Fenstermaker Berk (Beverly Hills: Sage Publications, 1980).
- ^{xi} Emily Post, *The Personality of a House: The Blue Book of Home Design and Decoration* (New York: Funk & Wagnalls, 1930), 385.
- ^{xii} Giedion, 553.
- ^{xiii} *Ibid*, 613.
- ^{xiv} Post, 491.
- ^{xv} Edith Wharton and Ogden Codman, *The Decoration of Houses* (London: Batsford, 1898), 186.
- ^{xvi} *Ibid*, 191.
- ^{xvii} Bernard Rudofsky, *Behind the Picture Window* (New York: Oxford University Press, 1955), 8.

^{xviii} Ibid, 10.

^{xix} Ibid, 11.

^{xx} Ibid, 12.

^{xxi} Beecher, 69.

^{xxii} Akiko Busch, *Geography of Home: Writings on Where We Live* (New York: Princeton Architectural Press, 1999), 43.

^{xxiii} Ibid, 46.

^{xxiv} Ibid, 48.

BIBLIOGRAPHY

- Beecher, Catharine and Harriet Beecher Stowe. *The American Woman's Home*. New York: J.B. Ford and Company, 1869.
- Busch, Akiko. *Geography of Home: Writings on Where We Live*. New York: Princeton Architectural Press, 1999.
- Giedion, Siegfried. *Mechanization Takes Command*. New York: Oxford University Press, 1948.
- Post, Emily. *The Personality of a House: The Blue Book of Home Design and Decoration*. New York: Funk & Wagnalls, 1930.
- Rudofsky, Bernard. *Behind the Picture Window*. New York: Oxford University Press, 1955.
- Sklar, Kathryn Kish. *Catharine Beecher: A Study in American Domesticity*. New Haven: Yale University Press, 1973.
- Strasser, Susan M. "An Enlarged Human Existence? Technology and Household Work in Nineteenth-Century America," in *Women and Household Labor*, ed. Sarah Fenstermaker Berk. Beverly Hills: Sage Publications, 1980.
- Wharton, Edith and Ogden Codman. *The Decoration of Houses*. London: Batsford, 1898.