"Little Visual Empire": Private Vistas and the Modern American House

by

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Submitted to the Department of Architecture in Partial
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ABSTRACT

A distinct emphasis on the view -- a private, typically pastoral, prospect -- became by the mid-twentieth century a defining characteristic of modern American house design. This dissertation investigates the historical emergence of the twentieth-century emphasis on private landscape views and attempts to define the chief characteristics by which they may be distinguished from earlier manifestations. Suburban sites are studied in particular since advocacy of the view was at its highest pitch when views were most compromised. The material is approached in general in connection with the positive values that private landscape views were felt to embody and the social ills they were thought to remedy.

Consideration of popular attitudes toward landscape views alters historical understanding of the acceptance of modernism in the United States. Modernist utopian visions, such as transparency, based on material and technological progress were actively recast in terms of improved and more immediate relations with a landscape. Spaciousness, despite small dimensions, was at the time widely praised as a particularly modern contribution to the design of modest houses. To this end, key formal attributes of modern house design, including smooth surfaces, the extension of wall and ceiling planes, minimized details, as well as glass walls and siting, are revisited for their ability to reproduce the optical experience of distance. A broader discourse of the view emerges with the consideration of materials from the related areas of landscape design, urban development, real estate appraisal, and property relations. These connections cohere around the visual commodification of landscape, a process noted to various extent in these other fields but one in which architecture's formative role has gone mostly unnoticed.

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"The universe is wider than our views of it"
-Henry David Thoreau

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Chapter 1: Introduction

Three Views

> The house is oriented toward what it thinks is its chief source of power.
> H. G. West, 1951[1]

> It may be that the modern house orients itself to the view, beach, sun, and sky, and that this orientation, and the picture window, replace the religious, symbolic orientation of the past.
> Amos Rapoport, 1969 [2]

By the middle of the twentieth century, the leading symbol of domestic power had shifted from the spatial, mechanical, social, and structural core of the house--the hearth--to the spatial periphery--the view--apparently outside functioning and utterly immaterial. In the center of the family parlor, with photographs and souvenirs assembled on its mantel and, often, with a mirror reflecting back an image of the family gathered there, the hearth also functioned as the house's representational core. Like the hearth that it replaced, the view, too, opened on to a wider world. Sylvan scenes behind glass walls, like pictures and mementos around the fireplace, established within the private home a relationship with some other place and organized domestic space around that relationship. Though both serve similar representational functions within the home, hearth and view imply different spatial relations for architecture, for the family, and even for larger patterns of settlement. Each connotes a whole range of social relations and may, by finding a resonant formal expression of social values, serve to stabilize those relations or open them to new challenges.

In colonial times in America the hearth was the chief source of heat, of cooked food, and of light. It often occupied a large proportion of wall, was the most expensive part of the house to build, and was the center of nearly all domestic activity. [Fig. 1.1] Central to the production of meals and comfort, consuming fuel and labor, providing a setting for work, rest, and social exchange, in

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1. In "The House is a Compass" *Landscape* (Autumn 1951) 27.

2. *House Form and Culture* (Englewood Cliffs, NJ: Prentice-Hall, 1969) 132.

short, through its continuous presence throughout family life, the hearth acquired a kind of domestic authority. By modern standards it seems a claustrophobic existence, with most family and many personal functions performed within sight of both fire and watchful parents. Privacy could well be defined by distance from the hearth, as something that took place in the dark, perhaps outside the home, or within the confines of one's diary. Nineteenth-century advances in mechanical sources of heat and light, increasing reliance on the use of store-bought goods, and greater differentiation of interior spaces changed all that. In many ways, progress in the domestic sphere could be measured through the nineteenth century by independence from the hearth.

Despite such developments, the fireplace remained a prominent architectural feature later in the century, especially in homes of the urban gentry. But its role had changed radically. It was fairly deified, with the whole house seeming, as Ruskin put it, "a temple of the hearth watched over by Household Gods."[3] Supplemented by its mantels and overmantels, framed by images of distant lands, absent faces, and past events, the hearth had become the primary place of self-conscious representation for the Victorian family. Prominent in the private house's most public space, the hearth organized the presentation of a family's best virtues and values. This enabled the entire space of the parlor to function "as a treasure house, full of art objects and curios that, by association to events or experience which took place outside the home, provided a window on the larger world."[4] The room in the private home devoted to social contact was in part a visual essay on civility and social order. The hearth became integral to notions of family identity by providing a setting for the family to appear together. "What is home without its teapot singing on the hearth, without its rallying-place at the fireside for family seclusion"?[5]

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3. "Of Queen's Gardens" in *Sesame and Lilies*, section 68 Works 1,8 122.

4. Clifford Edward Clark, *The American Family Home, 1800-1960* (Chapel Hill: University of North Carolina Press, 1986) 116.

5. Donald Mitchell, "The Country House," in Russell Sturgis, *Homes in City and Country*.(NY: Scribner's 1893). This is a striking shift from Hawthorne's earlier and more somber romanticization of the colonial past where "modern" characters such as the daguerrotypist Holgrave in *House of the Seven Gables* or Hester Prynne in *The Scarlet Letter*--"begin all anew"--sought to open up all too secluded families and break free of the secret life of the past which dwelt in its ancient structures.

The hearth had become central not only to the individual family but to an aggregate of families, a nation. Especially after the American centennial, concepts of national identity were tied to the steady, centering power of the hearth: "The foundation of our free institutions is in our love, as a people, for our homes. The strength of our country is found, not in the declaration that all men are free and equal, but in the quiet influence of the fireside, the bonds which unite together in the family circle. The corner-stone of our republic is the hearth-stone."[6] By the end of the nineteenth century, as its former functions were being replaced by centralized heating, electric lights, and new cooking appliances, the hearth was appreciated more for the values it could represent than any crucial functions it could perform.

The fact that the home fires of the hearth were technologically obsolete did not diminish its symbolic power. If anything, this may have increased it. Perhaps above all else, the emphasis on representation was precipitated by technological change, "A middle-class cult of the fireplace emerged concurrently with and, in part, because of, the practicality of central heating." Reasons and occasions for coming together as a family had to be invented once it was no longer necessary for warmth or light. So powerful, or fashionable, was this symbol of domesticity that "Home owners did not seem to mind if hearths came with artificial logs, were often gas fired, or hid a furnace register."[7] Architects, beholden to a higher standard, did mind. Gustav Stickley, for instance, railed against faux fires: "The big hospitable fireplace is almost a necessity, for the hearth-stone is always the center of true home life, and the very spirit of home seems to be lacking when a register or radiator tries ineffectually to take the place of a glowing grate or a crackling leaping fire of logs."[8] Despite his indignation, Stickley was emphasizing precisely the symbolic dimension of the hearth--"the very spirit of home"--at the moment the hearth itself became technically expendable. [Fig. 1.2]

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6. Reverend Wm. G. Eliot, Jr. *Lectures to Young Women* (Boston 1880). Cited in Kenneth Jackson, *Crabgrass Frontier. The suburbanization of the United States* (New York: Oxford University Press, 1985).

7. Thomas Schlereth, *Victorian America. Transformations in Everyday Life* (New York: Harper Collins, 1991) 122.

8. Gustav Stickley, "The Craftsman Idea," *Craftsman Homes* [1909] (New York: Dover, 1979) 196.

By the 1950's the representational role of the hearth had been overshadowed by the view--a private, typically pastoral prospect seen through a wall of glass. [Figs. 1.3-1.17] Professional and popular periodicals alike regularly extolled the virtues of owning a view: intimacy with nature and an unaccustomed spaciousness. The view helped to "bring the outdoors indoors" and was the sure sign that a family enjoyed all the advantages of "outdoor living." Conversely, it facilitated the generous expansion of interiors so that, "Scarcely interrupted by the great areas of glass, inner space seems to flow on outdoors to fuse with the immeasurable space of nature."[9] While the houses and views chosen for illustration in contemporary journals were generally designed for privileged Americans, the domestic ideal of the view was widespread. In fact, advocacy of the view was at its highest pitch when sites were at their smallest: when views were most inhibited by limited budgets and like-minded neighbors. For those sites without views or impeded by neighbors or telephone poles, designers offered strategies to obtain or even, as *Life* magazine put it, "produce" one. Glass walls could create "the feeling of space even if you cannot afford it as a fact."[10] Much discussion of the view centered on this dilemma: providing deep space where only shallow space existed. Again and again, periodicals stressed what might today be called virtual space--"the feeling of space ... without adding the actual space."[11] Because it didn't necessarily depend on actual conditions at the site or the client's ability to pay, a landscape view was no longer restricted to the wealthy. The modern house, with its walls of glass looking over the landscape, can thus be understood as a bid to disseminate and multiply encounters with nature in a rapidly urbanizing society. The persistent emphasis at this time on glass walls and an ensuing spaciousness, despite small sites and the consequent potential for compromised privacy, stands as a monument to this substitution.

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9. Margaret Miller, ed., *What is Modern Architecture?* (New York: Museum of Modern Art, 1946). *Architectural Record* reported in 1936 that few clients cared much for fireplaces anymore, favoring instead "Klassy" bathrooms, good natural light and views. In ". . . find out what the buyer wants," *Architectural Record* (April 1936) 328.

10. *House and Garden* (August 1947) 72.

11. William Wurster, "When is a Small House Large?", *House and Garden*, (February 1947) 50.

The view lay at the intersection of a number of values promoted in mid-century America. Significant beyond a narrowly defined functional role, that is, as simply a light-transmitting enclosure, the glass wall resonated within a web of regularly reinforced and often contradictory associations. A view was understood as private but it didn't signify ownership of lands surveyed. The "wall of glass" required the use of materials and methods that had been hailed as technological innovations only a short time before and had signified architecture's absorption of industrial products and practices. But it was promoted as a means to compensate for having to live in a technological society. In this context, the popularity of glass walls occurs when traditional uses of the window were being supplemented by technological refinements in artificial lighting and ventilation. Similar to Stickley's advocacy of the hearth, based on its symbolic orientation, at the moment of its technological obsolescence, architects advanced a visual logic for walls of glass just when the window's functional relevance subsided. Glass walls worked best with extensive sites but were championed as a means to democratize the experience of nature for an essentially urban middle class. A view could ground a family's interest in health and outdoor living in the midst of rampant mechanization. It would "bring the outdoors indoors" but without making the private public. The "large window," a diminutive version of the glass wall, was proclaimed "modern architecture's most important contribution to house design."[12] But it was the first, and only, architectural element openly used on traditional or "Cape Cod" houses. As a desired characteristic of middle class housing that may be reflected in house costs or purchased through design services, the view may be further understood as a new good directed at compensating citizens for their loss of autonomy in an urban and corporate economy. The view may well be the crowning good in what historians have called "therapeutic consumption."[13]

A view could do all this by virtue of the fact that it emphasized the periphery of the house rather than its center. This reorientation in the home was understood at the time as indicative of a more

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12. George Nelson and Henry Wright, *Tomorrow's House. A complete guide for the home-builder* (New York: Simon and Schuster, 1946) 34.

13. In, for instance, T. J. Jackson Lears, *No Place of Grace* (New York: Pantheon, 1981). Lears claims that consumer culture in general was built on therapeutic promises.

sweeping reformulation of life in the modern age. In 1937, Raymond McGrath and A.C. Frost, in their history of glass in architecture, related modern house design to these larger patterns, "At its simplest it may be stated as the shifting of the focus from the fireplace to the window, or rather the change from a local secluded interest to a distributed active interest"[14] The view in fact emerges as a leading architectural value at the moment America's isolationist strain was coming to an end and it flowers in the context of a postwar mood of expansiveness, encompassing the explicit extension of international political interests, the migration to the suburbs, as well as increased scope for leisure travel by the middle class. While only infrequently making the case explicit, views were discussed in terms consonant with this moment of national redefinition. Once "freed from the vertical axis of the chimney stack," the whole house was seen itself to extend into the landscape and foster visual mobility over the American landscape.[15] By recapitulating popular notions of spatial expansion, views could be taken as a product of the same frontier conditions that had shaped the American character. This may account for *House Beautiful's* ascription of "American style" to the use of glass walls, which, it was claimed, would prove significant in the contemporary contest between freedom and totalitarianism. Pride in the American landscape, and representations of it, had been effective at constructing an "aesthetic nationalism" since the Revolution.[16] As a representation of the historical landscape, seen from the altitude of the 1950's, a view could serve as a daily reminder of a national narrative that was still in the making, with

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14. McGrath, Raymond and Frost, A.C. *Glass in Architecture and Decoration* (London: The Architectural Press, 1937) 154. The authors may have imputed introverted and extroverted characteristics prematurely--the view, I will argue, has its solipsistic side--but, they are completely reliable regarding the changes modernism was bringing to domestic architecture.

    Further, the view may be considered a popular or mainstream corollary to what Colin Rowe has termed a "peripheric principle" in the architecture of Mies and Le Corbusier. Citing Gropius and van Doesburg, Rowe argues that a conscious "abolition of the centre" was accomplished by various means. Although surely not the most formally interesting, orientation to the outdoors must be included among these. See Colin Rowe, "Neo-'Classsicism' and Modern Architecture I" and "Neo-'Classsicism' and Modern Architecture II" [1956-57] *Mathematics of the Ideal Villa* (Cambridge, MA: MIT Press, 1976) 127-30, 143-44.

15. "Houses," *Architectural Forum* (November 1948) 144.

16. J. Meredith Neil, *Toward a National Taste. America's quest for aesthetic independence* (Honolulu: University Press of Hawaii, 1975) 267ff.

middle-class suburbanites, especially those with a taste for modern design, referred to as the new pioneers.

A view was not only a family's way of representing itself and its nationality to itself, it also helped define the idea of a house to the architectural profession. As such, it could, and did, transform even the most fundamental architectural archetypes: Marcel Breuer's houses, for instance, were labeled "observation posts" and were compared both in function and appearance to cameras, with the architect described as "the man behind the camera."[17] The view could become the foundation of the design process: houses were described as being organized or "built around" a view, or "reversed" or "elevated" for one. William Wurster proposed glass walls as the answer to his question "When is a small house large?" and in one stroke redefined an American building type: with no small delight in the contradiction, his architectural style would be characterized as "the large small house." The view was also one of the chief reasons offered to justify the reorientation of the house from the street to the private backyard: longstanding and fundamental distinctions like "façade" and "rear" were redesignated in countless publications as "street side," even "blind side," and "view side." The glass wall itself was valued less as a visible sign of the technical mastery of new materials and construction methods, as it had been for modernists in the 1920's, than as a technologically facilitated access to nature, a nature conceived as a broad and unpopulated vista.

Although the view displaced the fireplace as the guiding spirit of the house, the hearth was no less popular a home feature in the 1950's than it had been in the late-nineteenth century. It had just been incorporated within a different constellation of domestic values. The hearth still continued to connote familial concord and to frame relations with the world beyond, but in new terms. As often as not, it supplemented the view and assumed, in countless floor plans, significant axial relations with the view. Typically, the fireplace was the quiet counterpoint to a dramatic view. *Architectural Forum*'s discussion of a 1943 house in Hollywood by Richard Neutra is characteristic. In a single paragraph, the house is described as commanding "a fine view" and

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17. *House and Home* (May 1952) 104 ff.

opening up "through a wide sliding door onto [sic] an outdoor sitting space confronting this fine panorama." Meanwhile, "[t]he fireplace is at the center, opposite the main view, and has a comfortable sitting corner."[18] The fireplace is seemingly opposite in character too, sounding quite modest when juxtaposed with the sense of movement and expansion apparently demanded of the house in response to the breadth of the view. A modernist "drive toward experiment," associated both with open minds and open walls, was often described "in contrast to the warm joy of security at the fireplace." The architect was called on to synthesize these equally important but "most contrasting elements of our nature."[19] [Figs. 1.18-1.24]

In numerous houses fireplaces were placed next to a view window so that "the view and the cheery fire can be enjoyed simultaneously."[20] Breuer, on the other hand, made a habit in his house designs of placing the hearth directly in front of the view. If a conflict of visual interest emerged, which was usually the case, it was the hearth that started to erode. Breuer actually seems to reenact this process by first placing the hearth in front of a wall of glass and then, in Peter Blake's description of Breuer's 1949 Clark House, "to prevent [the] fireplace from obstructing [the] view too much, it has been perforated in several places."[21] More typical were the cases where the hearth and view were related by a visual field generated from a viewpoint across the room. This could lend some stability to spatial activities and might resolve competing visual interests. Regarding the very same arrangement just noted, Blake observes that "By placing [a] free-standing fireplace in the line of a view of the landscape, [the] furniture arrangement is the same whether you watch the fire or look out through the glass walls." This was an often-repeated design rationale.[22]

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18. "40 Houses," *Architectural Forum*.(April 1948) 113.

19. Marcel Breuer quoted in *Architectural Forum* (November 1948) 147.

20. In this case, in the master bedroom. *Architectural Record* (September 1948) 104.

21. In *Marcel Breuer: Sun and Shadow*, Peter Blake, ed. (New York: Dodd, Mead, 1955) 113.

22. It was later described in *The Place of Houses* as a special kind of "focus." "Focus organizes the space inside rooms. Of equal power is outlook, in which something outside the room attracts the attention of the inhabitant without requiring him to give up those advantages enclosure brings." In Charles Moore, Gerald

For all this, the view itself was fairly soon displaced as a domestic focus. By the end of the 1950's, families gathered around the television more frequently and more earnestly than around a view. Advertisements for home products, which during the 1940's and 1950's had borrowed heavily from view imagery, also turned more and more to television for their marketing cues. As it turned out, the view was an intermediate stage between a Victorian domesticity, represented by the hearth, and the postwar reorientation of domestic space around television, the "electronic hearth."[23]

But television was absorbed within the home in accordance with those visual practices pioneered by the view. The fascination with distant vistas, without leaving home, is common to both. Television appropriated an entire logic of looking promulgated by the view's visual values. It was described as a "looking glass" and as the "biggest window".[24] Early books on television, like Thomas Hutchinson's *Here is Television, Your Window on the World* made the connection explicit.[25] Competition between the hearth, the view and television was fierce. Though the hearth had made a provisional peace, its "position is being challenged by window walls and television" and consequently, once a sober requirement, it was rendered "a delightful extravagance."[26] pleasant but unnecessary; In turn, when *Architectural Forum* asked "Will the television set replace the fireplace--or, how soon will it replace the fireplace?" it surmised that the television set would also demand fewer or smaller or more remote windows to prevent ambient glare from disturbing the electronic view. Nevertheless, the editors insisted that screens will grow larger, "despite the assertions of most television technical men." They based this then-provocative claim not on faith in technical progress but on their assessment of the visual culture of the house in the

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Allen, Donlyn Lyndon, *The Place of Houses* (New York: Holt Rinehart, 1974) 102.

23. Cecelia Tichi, *Electronic Hearth. Creating an American Television Culture* (New York, 1991).

24. *Ibid.* 4.

25. Lynn Spigel in "Installing the Television Set: Popular Discourses on Television and Domestic Space, 1948-1955," in Spigel and Mann, eds. *Private Screenings. Television and the Female Consumer* (Minneapolis, 1992). Spigel cites Hutchinson's book.

26. Ray Faulkner. *Inside Today's Home* (New York: Henry Holt, 1954) 314.

1950's: no one will long be satisfied in their own home with "a last-row balcony view of the world."[27] Television was incorporated within the home during the 1950's precisely by seizing the rhetoric of the view. *House Beautiful's* claim that "The walls of today's home are as wide as the world. You can savor the earth and the fullness thereof from a seat in your living room," was not about a glass-walled prospect but the television, a glass-screened scene.[28]

If there was one single moment of peaceful coexistence, it had to be September 1954. [Fig. 1.25] At that time, *House and Home* perspicuously observed, "Nowadays, most living rooms have three views--two of them inside, one of them outdoors:" the television, the fireplace, and "a view of the garden through a glass wall. In a good living room you do not have to move the furniture around ... these three views are all visible within a 90° arc from wherever you sit."[29] From the comfort of one's own couch, three visual axes, spanning cultural objects whose origins lay in different centuries, conveniently converged in one great arc of visual delight. The primary reason they came together was that the home had a new role to play in society; "The home of today has a new function: visual recreation," and what served that need might logically be linked together.[30] In accordance with the reigning consumer philosophy of the day, no object, no single set of values, no implied pattern of spatial arrangement could be so incompatible with another as to prevent their happy harmony in the family living room.

Hearth, view, tv--all functioned at different points and in different ways as a symbolic core of the house where family values were represented, reinforced, and reproduced. For its part, the view had come to stand for a constellation of ideas, some of which, certainly, were "distributed" and

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27. "Television," *Architectural Forum* (September 1948) 118-120.

28. "Expanding the World of your Living Room," *House Beautiful* (January 1953). The entire issue focuses on the place of television in the home. Like the fireplace, television and home moviews were "centers of delight and of one's imagination."; "Television did not narrow the vision of America; it extended our horizons."

29. *House and Home* (September 1954).

30. Samuel Paul, *The Book of Home Modernizing* (1953) 53. Indeed, for convenience's sake, Paul suggests that the television may be placed inside the fireplace, since their functions had become one.

"active" while others were acutely xenophobic. The power of the view as a form of representation is that it made these relations seem complementary, at times even inevitable.

Geographical Fantasies

Wow! The view from the observation tower speaks for itself.

-Paul Goldberger 1995[31]

A landscape that speaks for itself is a kind of geographical fantasy. Like any fantasy, it involves the projection of subjective desires on to some object. But landscape views, especially private ones, have become so naturalized in our culture that the sense of projection is difficult to recover; they seem to present their own reasons and pleasures with such obvious logic as to be taken, on occasion, as independent agents of communication.

At the time this naturalization was taking place, however, a bit more explanation was required. Architectural periodicals of the 1940's and 1950's typically offered some characterization of the private vistas that regularly served to illustrate the modern houses they reviewed. When seen directly, that is, with one's own eyes, a view is a representation in a philosophical sense. When a view is communicated--through words, through pictures, even through walls of glass--it is a representation in a more conventional sense: parts of a prior perceptual experience have been framed or selectively transmitted. To some extent at least, selection must be influenced by those experiential components that lend themselves to communication as well as by the editorial suppositions regarding what components will interest readers or guide their aesthetic judgements. A study of views as visual or verbal descriptions of landscape, must inevitably consider the values that guided editorial selection.

This dissertation is premised on the belief that landscape views, particularly those used to illustrate buildings, are "about" something other than the landscape. Lovely landscapes have long existed "out there" but the private view from the middle-class home is both an historical and a

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31. "Houses as Art," *New York Times Magazine*, Sec. 6 (12 March 1995) 59.

discursive phenomenon. Ascribing a view solely to the properties of a place is akin to a kind of "geographical determinism" described by the historical geographer James C. Malin:

> Habitability by man of any area of the earth depends, not upon the properties of the area *per se*, but upon man's capacity to utilize the properties that exist there, and turn them to his advantage. No other assumption about history is tenable, unless an outright geographical determinism is imposed.[32]

By citing "man's capacity to utilize" and "his advantage," Malin knowingly places geography fully within the realm of technical abilities and human purpose. Similarly, the "representability" of an area of the earth is necessarily organized within the limits of available means and in accordance with various purposes. Though often interested in the same elements that make a place unique, mapmakers and painters, for example, find different ways to represent them. Writers on architecture, certainly, also have particular interests that are served by their use of landscapes to illustrate properties of buildings. The view in this sense is a topography organized to speak about architecture.

This is not at all to deny a biological underpinning to an apparently universal pleasure taken in the occasional prospect. A rather large body of scientific literature has in fact grown up around precisely the biological and evolutionary dimensions of the desire to view.[33] Nearly all explanations of aesthetic perception of landscape rely to varying extents on this literature. Jay Appleton, for instance, drawing from the earlier work of J. J. Gibson, describes the landscape in terms of "affordances" or physical accommodations for various life activities that humans as well as higher animals can perceive in the environment. Appleton notes that even seemingly unmediated environmental perceptions are variously directed, with the "master activity" being survival. Instinctively, the mind translates the "morphology of the object to the behavioral opportunity" afforded by the object. Objects in the landscape thus acquire a "naturally determined

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32. James C. Malin. *History and Ecology. Studies of the Grassland,* Robert Swierenga, ed. (Lincoln: University of Nebraska Press, 1984) 132.

33. For example, "Want a Room With a View? Idea May Be in the Genes," *New York Times* (30 November 1993) C1, C13. Others include: R. and S. Kaplan, *The Experience of Nature. A psychological perspective* (Cambridge: Cambridge University Press, 1989) and Jay Appleton, *The Experience of Landscape* (London: Wiley, 1975).

symbolism". Taking aesthetic value as a secondary "pleasure associated with or deriving from perception", Appleton argues that art criticism should address the natural symbolism that underpins any cultural symbolism.[34] Even at a biological level, perception is rarely disinterested since such "animal survival value" persists in everyday activities.

Our ancient experience as both predator and prey thus peeps through current civilized taste in landscapes. Both Appleton and John Jakle schematize this vestigial natural symbolism of landscape features into two domains: places from which to survey and places in which to hide. According to "prospect-refuge" theory, a mental map both of high points and hiding places is essential for the survival of higher animals. When survival is actually at issue, the necessity for action excludes all other considerations. In most cases though, the mere possibility of hiding or surveying may become a source of pleasure in itself.[35]

Without contradicting the literature on this topic, one can say that culture articulates biology.[36] What else might account for the landscape descriptions that accumulated between the pages of architectural magazines in the 1950's? Article after article, issue after issue, from journal to journal, modern houses were situated at the vertices of grand prospects. The most recurrent landscape images and accompanying descriptors involved adjectives like "magnificent," "panoramic," "distant," "sweeping," "stunning," "vast," and on and on. And, despite all these viewpoints, not one of them overlooked another. If forced to judge from these periodicals, one would surmise that in 1950 in America there was no place to hide. If the house itself is taken as

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34. Jay Appleton. *The Symbolism of Habitat. An interpretation of landscape in the arts* (Seattle: University of Washington 1990) 7-9, 21-24. See also J. J. Gibson, *An Ecological Approach to Visual Perception* 127-29, 137-39 and Arnold Berleant, *The Aesthetics of Environment.* (Philadelphia: Temple University Press, 1922) 150.

35. In his *The Experience of Landscape* (1975). See also John Jakle's *The Visual Elements of Landscape* (Amherst: University of Massachusetts Press, 1987) for more elaboration.

36. Steven Bourassa, in "A Paradigm for Landscape Aesthetics," argues for the theoretical incorporation of biological, cultural, and personal "modes of aesthetic experience" in assessments of landscape perception. In *Environment and Behavior* 22, 6 (November 1990) 787-812.

the refuge, which is, after all, its mythic archetype, then the surroundings might as well always be distant vistas. Around 1950 they were.

If this sounds like an imagined landscape, there was no shortage of day-dreamers. By the middle of the century, views became one of the most desired attributes of the single-family house. While landscape views are an ancient literary conceit, a subject painted for centuries, even a property asset advertised as such since the late-nineteenth century, never had they been so prominent a focus of value in architectural discourse. And nowhere was modern architecture pitched more breathlessly in terms of a view than in the real estate market where pitching architecture is precisely the point. In fact, descriptions of the houses illustrated in architectural magazines sound remarkably like the houses described in the real estate sections of city newspapers. "Panoramic View" became, in some newspapers, an actual heading, on a par with the names of towns or communities. A single issue of *The Los Angeles Sunday Times* from 1953 offers up a dizzying variety of views. There are views *per se:* "PANORAMIC view," "New-View," "Million $ View," "COMPACT ... VIEW home," "View from Bel-Air," "4 Acres, Sweeping View!," "San Marino Vista", "scenic views in every direction," and more than one "Gorgeous view." As in the architectural periodicals, the view was a function of the glass wall: "outdoor living through walls of glass," "Magnificent panoramic view from your *wall of glass living room*," "View-Modern," "Glassed In" to "bring the outdoors in," "Unobstructed ocean-mountain view. Plenty of glass." Then, of course, there are descriptions that might be thought to overstate their case: "CHINA...this 2-BR home has a view to China from its living room," "Cosmorama," "VIEWS UNPARALLELED IN ALL THE WORLD," "We have moved mountains to give you this beautiful panoramic view!," "If you were to rub Aladdin's lamp," this house with a "magnificent view from a level lot with no steep hills ... might be your answer," "BREATHTAKING panorama," "sweeping views and complete privacy," and the "View that must be seen".[37]

Redundancy and exaggeration are evidently not defects in real estate circles. This is not to say, however, that real estate agents are out of touch with the desires of their clients. Since success in

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37. 3 May 1953, Part 5 Real Estate, and Part I Classified, 16-21.

selling real estate requires staying abreast of market interests, perhaps sales agents are those housing professionals most intimate with the wants and needs of contemporary home buyers, that is, those most aware of the "reception" of architectural ideas. At least this was the perception of leading figures in the industry. Emerson Goble, editor of the *National Real Estate Journal*, claimed, "The real-estate developer knows he will sell more houses by finding out what the people want and will pay for".[38] The real estate advertisement, like any advertisement, has only a limited space in which to make the greatest impact by telling the people what the developer and agents found out about their desires. To the extent that a view was a widely prized feature that might facilitate sales, it posited a social desire by proposing a way to fulfill that desire. Given the boom in Los Angeles area real estate at the time, such ads were unmistakably successful in appealing to something that buyers wanted. Defining that something is the central task of this dissertation.

Over time, whole communities sprang up with names that commemorated a view or viewpoint, analogous with the founding of towns in the nineteenth century with names, like Ithaca or Troy or Cincinnati, drawn from classical sources. From a "geographical fantasy," attaining views had become a "geographical habit."[39] Advertised in the same issue of the *Los Angeles Times* were communities like "Grandview Park," "Mountain View Homes," "Sunland View Estates," Hillview Park Estates, and "Green View Homes"[40]. Towns might be named for views in the nineteenth century, like Alviso (the view), Bella Vista (beautiful view) and Visalia (place to view).[41] But variations on "vista" were used then only occasionally as a source for names, while "most names which include the word are modern applications." This includes towns like Vista del Mar, Vista del Valle, Vista Grande, Alta Vista, Sierra Vista, Chula Vista, Monte Vista, Azure Vista, Linda

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38. "Realty eyes the architect and finds it needs him if--," *Architectural Record* (November 1940) 49.

39. Peirce F. Lewis, "The Northeast and the making of American geographical habits," in *The Making of the American Landscape*, Michael P. Conzen, ed. (London: Unwin Hyman, 1990) 80-103.

40. *Los Angeles Sunday Times, op.cit.*

41. In C. M. Drake, *California Names and their Literal Meanings* (Los Angeles: Jones Book, 1893).

Vista, and just plain Vista.[42] As if to make the point as far-reaching as the landscape the 1951 edition of the *Dictionary of California Land Names* approvingly quoted Robert Louis Stevenson's impression of the American West: "if the new Homer shall arise from the Western continent, his verse will be enriched, his pages sing spontaneously, with the names of the States and cities that would strike the fancy in a business circular."[43] It is a short step indeed from landscapes that conjure spontaneous song to landscapes that speak for themselves.

Dissertation Summary

The primary focus of this dissertation is the emphasis in the 1950's on private landscape views from within the modern American house. Fabulous views made a great deal of sense on large Picturesque-era estates but they were promoted in the 1950's for small and improbable sites. This seeming contradiction lies at the heart of the dissertation. Most of the exposition is therefore given to the attempt to understand the significance of landscape views at this time. Inevitably, some deeper historical exploration appears as a means simply to understand how the situation in the 1950's came to be and also to learn how it was different from what came before. The next chapter, "The Visual Commodification of Landscape," traces the emergence of views not only as an important value in architectural literature and design but also as an increasingly visible "object" in real estate and law. The reason for addressing these disciplines is to demonstrate how architecture relates to other social practice generally and, regarding views, to show how architectural thinking was in the vanguard. The fundamental point of this section is that views are thought about in architectural discourse and thereby gradually made a part of everyday life. Architecture was a primary vehicle by which landscape values were expressed. Legal protection for views occurred only after they were a prized part of the daily visual environment and, additionally, a part that was unstable. The next chapter, "'The View It Frames': A History of the Picture Window," also takes a more historical approach, but with respect to a specifically architectural element. The picture window became the emblem of the emphasis on private views

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42. Erwin Gudde, *California Place Names* (Berkeley: University of California Press, 1969) 355-6.

43. Phil Hanna, ed. (Los Angeles: Auto Club of Southern California, 1951) xviii.

on small sites, consequently unravelling its history reveals many of the key themes of the following chapters.

The next several chapters focus on the way in which views were understood in the 1950's. "The Production of Spaciousness" attempts to explain a primary benefit of a landscape view: a sense of space that was out of proportion with the house in which it was perceived. Achieving spaciousness in small places was a key concern for many architects as well as being an entirely new use of the term. A brief historical section reviews earlier means of acheiving a sense of space before focusing on the ways it was accomplished in the twentieth century. To a large extent this involved a celebration of perceptual misreadings and a series of compensations that are the subject of the following chapter, "The Ruler and the Eye." This section pulls apart the many terms that seemed to form a binary pair when coupled with a view. To varying degrees, landscape views were felt to balance or remedy economic pressures on the middle class, biological threats posed by advancing mechanization, social disruptions embodied in urban imagery, which in turn had urban consequences. These pairs are then considered as contributing to a modern sense of the landscape as a kind of therapy. Finally, this chapter considers how providing therapeutic opportunities became a function of professional residential design.

Following from the notion of a therapeutic landscape, the next chapter, "A New View of Nature," discusses the construction of nature by way of contrast with technology. How these two broad terms intersect in architecture is examined first for the nineteenth century and then within twentieth-century modern architectural discourse. This chapter argues that a tension between ideas of nature and ideas of technology were resolved at least momentarily by landscape views through walls of glass. The following chapter examines how this resolution was acheived by means of a theme of "concealment." At the level of the site, the house, the wall, and mechanical equipment, concealment of technical apparatus is revealed to be a frequent and conscious strategy for facilitating a reading of the modern house as "natural." "Cultivated Vistas" then considers other means of highlighting views and, when there were no views, producing them. This chapter maintains that views were important enough of a factor of house design as to be manufactured

when there weren't any at the site. The chapter looks at developments in interior design that intersect with views: the role of indoor gardens, the development of the indoor-outdoor garden, the use of nighttime illumination, the use of art to suggest views, mirrors and their ability to reproduce views deep within the house, and finally an outline of the use of scenic wallpapers and photomurals.

The conclusion attempts to draw together discussions in prior chapters under the notion of an "interiorized" landscape. That is to say, as houses became smaller architects attempted to infuse them with a landscape scale, a sense of flowing space and continuity with nature that was out of all proportions with actual house and site conditions, namely suburban development. To this end, strategies for screening views are examined for their phenomenological implications. The dissertation concludes that idealized versions of the modern house may be read as attempts to produce "distance effects," that is a pictorial evocation of depth. The optical cues by which depth was perceptually produced include the extension and diminution of receding planes, the texture gradient of smooth surfaces and minimized details, the use of atmospheric perspective, the contrast between close-up form and hazy distance, and the countless efforts to "bring the outdoors indoors." In essence, this last section takes seriously the claim that modernism was "a way of seeing."

Historiographical Importance of the View

Seeking views from within the private dwelling has a long history in architecture. Pompeian walls painted with perspectivally plausible landscapes and the patios and axes that gave visible proof of the Renaissance economic system of villegatura in the Veneto are only two examples that come to mind immediately. Most relevant for this study is the development in eighteenth-century England of the picturesque landscape, which was the source for the single-family house and surrounding yard in the United States.[44] With the picturesque, whole terrains were recomposed in accordance

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44. This spatial pattern, as the aesthetic philosopher Paul Shepard noted, formed "the most characteristic single feature in the white settlement of most of the continent." In *Man in the Landscape. A Historic View of the Esthetics of Nature*. (New York: Knopf, 1967) 91. Indeed, J. B. Jackson thought the yard was nothing less than a "national institution" precisely because it was regarded as "a landscape in miniature." In "Ghosts at

with the painted views of Italian and French artists such as Salvatore Rosa or Claude Lorrain. As Raymond Williams described it, the picturesque was a "landscape seen from above, from the new elevated sites; the large windows, the terraces, the lawns; the cleared lines of vision; the expression of control and command." For Williams, the expression of control was integral with the tremendous social power involved in literally remaking a landscape:

> The clearing of parks as 'Arcadian' prospects depended on the completed system of exploitation of the agricultural and genuinely pastoral lands beyond the park boundaries. ... The mathematical grids of the enclosure awards, with their straight hedges and straight roads, are contemporary with the natural curves and scatterings of the park scenery.

Williams makes it abundantly clear that the picturesque landscape was "the high point of agrarian bourgeois art" and, as such, involved large tracts of private land, socially valued signs of status, sophisticated earth-moving equipment, and talented landscape architects, not to mention societal and personal wealth. The picturesque emerged, in short, "when men could produce their own nature."[45]

There were many similarities between the picturesque landscape and the modern one under discussion. For both, the scope of the view was a factor in its evaluation. The best were broad but unpopulated, as Williams put it, "a rural landscape emptied of rural labour and of labourers; a sylvan and watery prospect, . . . from which the facts of production had been banished: the roads and approaches artfully concealed by trees".[46] It is difficult indeed not to think of Humphrey Repton's "Red Books" and their overlays that filter the unsightly when a leading modernist such as Neutra advised, "Think at once of screening your little visual empire. Calculate the possibility of `planting out of sight' what you do not want to see."[47]

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the Door," *Landscape* 1, 2 (Autumn 1951) 4.

45. In *The Country and the City* Oxford: Oxford University Press, 1973) 123-5.

46. *Ibid.* 125.

47. In *Mystery and Realities of the Site* (Scarsdale: Morgan and Morgan, 1951) 55.

Despite the similarities, the twentieth-century desire for a view may be distinguished from earlier periods in several ways. A private view in the eighteenth century was a function of aristocratic privilege. The view was private because the land overlooked was, for the most part, owned by the viewer. Propertied interests in England could be demonstrated by the view's qualities.[48] In the twentieth century a view was mass-produced and required neither wealth nor a particularly promising vantage point. As a result, pastoral repose, formerly a privileged preserve, could now be seen as a middle-class reward. The view was private *despite* overlooking properties well beyond the viewer's economic reach. Architects pursued a range of strategies to provide perceptual extensions for the diminished dimensions characteristic of modern life. This, briefly, was the function of "spaciousness." Such a discrepancy underscores the unique character of the view in the twentieth-century and, at the same time, places it within a larger architectural tradition.[49]

The passage of a century and a half also meant nature and technology had changed. Technology's presence seemed more evident, its effects more devastating and irreparable. Much of canoncial modernism proceeded on a principle of expressing an underlying structural as well as functional reality, albeit within wide parameters. While remaining true to architecture's technological underpinnings, architects suggested that views might compensate for life in a technological society. Around 1950, architectural periodicals were saturated by a tension professionals perceived between, as Mumford put it, "mechanical facilities" on the one hand and "human needs, interests, sentiments, values" on the other hand. The "lessons of the machine" might have been modernism's point of origin but, Mumford argued, satisfaction of human needs should be its

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48. See, for example, Stephen Daniels, "Humphry Repton and the Improvement of the Estate," in his *Fields of Vision. Landscape imagery and national identity in England and the United States* (Cambridge: Polity Press 1993) 80-111.

49. Clare Cooper Marcus describes a number of such contradictions in recent suburban homes between values promoted and actual physical conditions, including "Nature: To Be Seen but not Touched" and "Perceived versus Usable Space." In Marcus, *et al.*, "Mixed Messages in Suburbia: Reading the Suburban Model Home," *Places* 4, 1.

ultimate goal.[50] A view through a house-wide wall of glass across a continent-wide range of climatic conditions functioned as a technologically facilitated improvement in an individual's access to nature.

Glass walls in suburban settings became an emblem of the misuse of the modernist ideal of expressing new materials and constructive methods. This fails to explain however, beyond sheer mercenary cynicism on the part of architects and subdivision developers, why they were desired in the first place. After all, the popularity of large areas of glass probably peaks sometime in the 1950's. This is almost thirty years after they are accepted in theoretical discussions of architecture as a technological expression; at least seventy years since they were actually used in skyscraper construction and appeared also in domestic settings; and over 150 years after they were technically possible. In short, technological rationalizations for the use of glass walls explains very little about their popularity for architecture. The discourse of the view, I believe, reveals much more about their acceptance. Reference to views also reveals the evident and sharp disappointment felt when all across the country glass walls were erected and the landscapes failed to materialize. Reference to the view is not intended however, to replace technological legitimations as much as to complement them, to show how technology was itself understood by way of contrast with something else.

The polemics of modern architecture often traded in various dualisms. "Modernism," for example, was often contrasted with historical or traditional design. In the 1950's, indeed since the 1930's, the technological aspect of modernism came itself into sharp relief with the call to reformulate modernism and have it address extra-technological concerns such as emotional needs. As Giedion put it, the time had come to heal the split between "thinking and feeling."[51] A great deal of energy was poured into the effort to "humanize" modernism or, as William Jordy phrased it, to "domesticate" it, to make modern architecture appealing in terms a prosperous clientele

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50. Mumford's version appears in "Function and Expression in Architecture," *Architectural Record* (November 1951) 107, although many other authors utilize a similar dichotomy.

51. In *Space, Time, Architecture* [1941] (Cambridge, MA: Harvard University Press, 1967) 2-28.

could appreciate. Jordy recognized both that much of modern architecture in America developed largely in relation to domestic work and also that the popular acceptance of modernism in the United States was due to a tamer exposition of its principles. This led however, to a tendency toward consumption; "Such popularization," Jordy noted, "never centers in the philosophical reach of a style, but in its consumable features."[52]

Apt as Jordy's argument is, it nevertheless leaves open the possibility for a study of consumption as it relates to architecture, precisely as a way to see how architecture registers and transforms the interests of a society. Such a study is if anything necessitated by recognition of the forces of consumption. Despite the facts that architecture and construction have long been prominent components of the national economy and that the basis of that economy shifted from production to consumption, architectural histories often remain focused on architectural production. They are usually concerned with architects, their internal discourse, and the generation of design ideas. Architectural history recapitulates nothing so much as the concerns and viewpoints of designers. While drawing from professional literature, this dissertation takes a small but, I believe, significant step outside this paradigm. The main argument here is that modern residential architecture found popular acceptance once its formal program combined with an American visual culture that predated it, that is to say, when the urge to view met the glass wall. Popularity of the view was animated both by architectural ideas of technology on the one hand and on the other hand a pastoral mythology and the willingness to live it imaginatively. If convincing, I believe this should demonstrate that architectural ideas have a life outside the profession which is not always best understood as enfeebled and that popular ideas have a life within professional discourse that is not necessarily corrosive.

Methodological Note

By referring so deliberately and regularly to opposing pairs of terms, the primary material of this dissertation lends itself to an essentially structuralist reading. Indeed, a structuralist account

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52. William Jordy, "The Domestication of Modern," *The Impact of European Modernism in the Mid-Twentieth Century* (Oxford: Oxford University Press, 1972) 174-75.

seems itself to be an historical artifact of domestic architecture discourse at this time. Commenting on the structuralist method espoused by Levi-Strauss for anthropology, Mary Douglas summarized a generalized form of analysis consequent to the recognition of such fundamental oppositions: "On the assumption that it is the nature of a myth to mediate contradictions, the method of analysis must proceed by distinguishing the opposition and the mediating elements."[53] If anything, private views mediated a number of tensions that were sharply felt at the time. They also resonated with a national frontier mythology, which even in the 1950's remained a touchstone for sociological studies of American character and recapitulated popular impressions of American history. Domestic architecture was in this way able to proffer images of broad and often unpopulated landscapes as visual analogues to an historical narrative. One needn't actually live like a pioneer for the scene to have value though. As Levi-Strauss described it, the "operative value" of a myth is not due to the particularities of a pattern but to the belief that "the specific pattern described is everlasting; it explains the present and the past as well as the future."[54] In fact, as I will often point out, the specifics of a situation were at great variance with the ideal. Nevertheless, views gained popular meaning and value as they tapped into, gave visual form to, and repeated a meaningful pattern.

In the 1950's, landscapes that appeared in architectural journals, whether in image or text, title or caption, were directed toward three main ends. At one level, views appeared as a straightforward description of the landscape that a particular house happened to find itself in. Whatever complex meanings this dissertation may uncover should not obscure the obvious point that would surely have been any architect's first response to the question, "What are we looking at through this glass wall?" Sometimes, a view is just a view. This artless formulation was, it turns out, central to a view's ability to function at other levels. A second aim of a view was to describe the architecture it is seen from. After all, the landscapes I discuss appeared in specific articles or

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53. "The Meaning of Myth," [1967] in *Implicit Meanings. Essays in Anthropology* (London: Routledge, 1975) 156.

54. Claude Lévi-Strauss, "The Structural Study of Myth," in *The Structuralists: From Marx to Lévi-Strauss*. Richard and Fernande De George, eds. (New York: Doubleday, 1972) 173.

entire periodicals dedicated to buildings. In this sense, a view was a kind of suggestion regarding how the architecture may, or should be understood. It provided a context not just for the actual building but for an understanding of the building. It was part of a strategy to assure that the architecture illustrated would be interpreted "correctly." Architectural discourse no doubt has always revolved around a spectrum of operative images; at mid-century a view was a legitimate way to represent architecture. Finally, views that appeared in periodicals of the 1940's and 1950's were, as often as not, about the viewer or the state of the viewer while viewing. Great views make you feel, well, great, that's the whole point of getting one; and making someone feel great is no small accomplishment for a building.

For the most part I ignore the actual landscapes that appear in architectural publications primarily because I believe that whatever the merits of a particular terrain, views were important because they operated at these other levels of building, self, and society. Whatever a view might reveal about a particular landscape would require not only other images of the same place but an examination of a specific region. The dissertation is focused much more on an imagined geography and its cultural resonances than it is on a definite and unique place.

I believe nonetheless that architectural discourse is affected by and influences how the world is built. Although this dissertation focuses on a discourse and therefore stays close to written sources, architecture as a discipline is wedged firmly in the material world. This means that the ideas current in architecture will emerge in or confound the physical environment. If there can be such a thing, then architecture is a built discourse. As such its spatial accommodations, if not its forms, are in a dialogue with other social endeavors. Admittedly, the degree to which the built environment influences thought has been romanticized since at least the last century. Yet, there is certainly some truth to the claim made by Liberty Hyde Bailey, to name only one, that: "Buildings are silent teachers; every hour their impressions are repeated."[55] More than this though, new investigations in geography and critical urban studies have recognized the factor of spatial distribution not only in the use of economic and cultural resources, but also in the formation of

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55. In *The Outlook to Nature* (New York: MacMillan, 1905) 121.

subjectivity. Spatial form is signifying. Though usually limited to urban-scale investigations, such studies are theoretically applicable at a finer scale. The private view from the single-family home is a discursive topos that reveals attitudes toward artifacts, like technology or the city, socio-economic processes, like contemporary processes of commodification, and the definition of social units, like the self or the family, and, not least, the physical form of buildings and settlements.

While I focus on architectural literature, this premise necessitates reference to materials from other disciplines. Consequently, I pursue two analytic strategies. First, I seek in related fields what I call "view values," one of which, I claim, is "spaciousness." The "desire for spacious living," for example, which drove urban workers to seek relatively remote residences, underpinned the most important shift in settlement patterns of the entire century.[56] View values, I hope to demonstrate, may be seen to operate in processes of suburbanization, even in the absence of any direct reference to the glass wall.

Second, I associate with the view certain issues in areas further afield and, in so doing, attempt to illuminate larger cultural issues of which I think the view was a part. An emphasis in architectural circles on landscape views from the private home bears a relation, I will argue, to perceived threats to individual integrity and contemporary redefinitions of the family. The sources I discuss thus range from leading architectural periodicals to advertisements in more popular "shelter magazines" to contemporary themes in sociology, from avant-garde architecture to the picture window to the modern family. If the view through a glass wall was a professional creation, it was nevertheless popularized and understood in this broader range of materials. By comparing such materials, I hope not only to discover the depth of some of the view's associations but also to find the limits of their applicability.

The breadth of this study is therefore its primary methodological challenge; it casts a net perhaps too widely. The reason I believe this risk is a worthwhile one is that, if successful, the divergence of source material will begin to reveal a pattern of interests, which, in architectural discourse,

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56. Edgar Hoover and Raymond Vernon. *Anatomy of a Metropolis* (1959).

cohered around a sylvan and private view. Architecture, I believe, registers the cultural ideas and codes of its time and private landscape views, I hope to demonstrate, were part of a contemporary structure of meaning. As Dell Upton put it in an historiographical essay, construction is a way of construing, that is, building and building discourse are ways a society comes to terms with its own values and means. Upton suggests that a broadly conceived "cultural landscape," including structures real and imagined, be taken as the analytic unit for architecture history.[57] If the result is ultimately diffuse, it might nevertheless still be meaningful.

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57. Dell Upton, "Architectural History or Landscape History?" *Journal of Architectural* Education 44:4 (August 1991) 195-99.

Chapter 2: The Visual Commodification of Landscape

The View Tax

In 1991, city officials of Port Hueneme, California, cast about for a way to finance ongoing maintenance of their public beach without violating the terms set earlier by a cap on property taxes. They proposed a special assessment district along the first few blocks of beachfront property, arguing that good maintenance would most benefit those being assessed, since those owners who lived closest could most readily take advantage of any improvements and, from their houses and apartments, they would overlook the clean beach throughout the day. Approved unanimously by the city council on July 17, the proposal attempted to fine tune the assessment further by graduating the assessment according to a formula involving proximity to the beach, square footage of the dwelling unit, and the amount of beach visible from the unit's windows. "The proposed assessments," the *Los Angeles Times* reported, "the first in California based on proximity to sea and sand--would tax a property's aesthetic value, with homeowners who enjoy a panoramic ocean view paying the highest rate," about $184 per year. Views less than panoramic triggered deep discounts: "Those with obstructed views would pay about 35% less" than the maximum, and "those with no view, but within two blocks of the ocean, would pay the least," or about $66 per year. Indignant residents called it "the view tax." Port Hueneme's Mayor repudiated the charge, certifying that: "Even a blind man . . . would have to pay." Residents quickly filed a lawsuit and town managers and auditors from Orange County to Oregon waited for the results.[58]

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58. It's a "thinly disguised property tax that violates the intent of Proposition 13's tax-increase limits" residents argued, including a vocal group from Anacapa View homes and condominiums, a seaside development named for the islands that appear on the horizon. City officials allowed that the assessment would benefit local property values but that it was entirely in accordance with a 1972 statewide ordinance pertaining to street lighting and landscaping. Christopher Pummer, "City Officials Seek Tax for Ocean Vistas," *Los Angeles Times* (Ventura County Edition) (30 June 1991) Pt.B, p.1, c.2, Pummer, "Council Oks Beach View Assessments Over Protests," *Los Angeles Times* (Ventura County Edition) (19 July 1991) Pt.B, p.1, c.4, "West County Issue--View Tax," *Los Angeles Times* (Ventura County Edition) (26 August 1991) Pt.B, p.3, c.1, Kay Saillant, "Dismissal of View Tax Lawsuit Denied," *Los Angeles Times* (Ventura County Edition) (30 April 1992) Pt.B, p.2, c.5, and reported also in *The Economist* (December 14 1991) 23.

Lost in the acrimony was a vast area of agreement: views were taxable. The city had just proposed as much while residents, for their part, objected because the proposal amounted to a double taxation. They were already taxed on the basis of their views. The view--how much view and how good--was a factor in a unit's market value and existing property taxes were based on a proportion of that value. An assessor for the county government agreed: "We appraise and tax those benefits that are put into real money terms when someone buys for the beach location and view. . . . people have already paid their dues for being next to the ocean." Views from inside a dwelling to the outside are, in fact, a standard item for consideration in determining the value of residential real estate and typically appear as a line item in appraisal checklists.

Further agreed upon was that ocean views were mediated by a number of institutions. The real estate market gauged the economic value of residential land, including intangible factors that affected value. Views were separable components of land value and although intangible, could be measured in terms of cost. The city, which residents recognized had the authority if not the right to tax views, was the very entity that local homeowners would turn to in order to protect their views should some new development inadvertantly obstruct or spoil them. Besides the city, a network of courts could also be called upon to determine remedies for losses in view quality since damage to the visual environment of residential areas had become since the 1960's accepted grounds for litigation. Benefits of views were routinely and sometimes precisely evaluated, resulting in the trade of entities such as scenic easements, which essentially granted the owner of such an easement viewing rights. Residents of Port Hueneme therefore hardly seemed surprised to find that their views were managed, priced, packaged, exchanged, and taxed within the existing system of property relations. They just didn't want to be taxed for them a second time.

The general acceptance of this situation camouflages a process by which something mutable, evanescent, and intangible may be commodified and taxed. Almost no aspect of this situation was evident at the beginning of the twentieth century: real estate markets were spotty at best, a primitive form of zoning had only just been upheld by the U.S. Supreme Court, aesthetics was certainly no basis for law, and no method existed, or was even proposed, to determine the value

of a view, let alone monetary damages due to the loss of one. The only aspect of Port Hueneme's proposed tax in evidence around 1900 would have been the appreciation of the view. More than simply local politics, then, the real estate market's assimilation of view in Port Hueneme, unexceptional by all accounts, reflects an historical change in how views were believed to be "owned" and a corresponding shift in definitions of real property. A great deal of cultural work must have preceded the 1991 consensus that the sight of something might be taxed and that the sovereign power of a national government might be summoned to protect one's view over someone else's territory.

The Most Desirable Site for the Residence

> The view fairly made us gasp, so all-comprehensive is it. ... Is it any wonder that with one accord we shouted 'This is the place!' and to our conductor, 'Here will we abide!'
>
> Charles Gilbert Hine, 1910[59]

Many people experience some delight upon seeing a beautiful landscape and many more seek to preserve delight when and where they find it. It comes as no surprise then to learn that views have long been a motivation for the selection of a homesite, at least for those with the luxury of choice. To entice buyers, an 1870 advertisement for a house facing Long Island Sound noted that "the view from the house is very fine and rarely excelled--nine lighthouses may be seen." Another, for a sixteen-acre site, told that the site could not be outdone for "beauty of situation, pure, bracing air, or grandeur of views in every direction."[60] Intended largely for an urban

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59. "The House that Tom Built," *Hine's Annual* 1910, n.p. The view in question was obtained from hill on Staten Island, New York.

60. *The Connecticut Real Estate Register. The Buyer's and Seller's Assistant*, v.8 Hartford: C. A. Lincoln and CO., (February 1870) pp. 45-46, 57. The role of view in buyer motivations and tenant satisfaction has since become the subject of a number of empirical studies. "The strongest forces in predicting positive neighborhood satisfaction were the natural aspects of the view. . . . Not only do people prefer to see the natural world, but having such views and facilities nearby strongly affects their satisfaction with their physical and social environment." In "Does the View Matter?" Roger Ulrich, "Aesthetic and Affective Response to Natural Environment," in Irwin Altman and Joachim Wohlwill, eds. *Behavior and the Natural Environment* (New York: Plenum Press, 1983) 144-47.

audience, such advertisements usually involved relatively large sites and were convenient to commuter railroads.

Would-be owners sometimes became so entranced by the prospect that they made foolish decisions. A great view might lead to the choice of a site too remote for the owners' purposes or it might lead them to make too many compromises with convenience in order to maximize their delight in the view. In 1873 Horace William Shaler Cleveland, a landscape architect and an early proponent of planning, thought that professional training was the proper tonic for the fixation a fine view might otherwise precipitate.

> If any considerable elevation, commanding an extended prospect, is included in the area, the first impulse of an inexperienced person will be to select the summit as the most desirable site for the residence. The importance of securing such a view from the windows, as conducive to the happiness of the daily life of the occupants is apt to be overrated in the enthusiasm excited by its first contemplation.[61]

Views might also seduce the "inexperienced person" to insist on larger windows, the better to see the view. To a novice this might seem a harmless request, but to architects the stakes were much higher. Walter Shaw Sparrow warned: "Do not look upon this matter as trivial. There has been a craze for windows unduly large."[62] While there were a number of factors that contributed to a demand in the late-nineteenth century for more and larger windows--technological improvements that made glass better and cheaper, and the scientific realization of the physiological benefits of sunlight and a subsequent association of light and health, to name but two--maximizing the view was certainly one of them. Alfred Hopkins, recalling in 1931 that the over-sized window "was a

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61. Horace William Shaler Cleveland, *Landscape Architecture as applied to the Wants of the West*, [1873] (Pittsburgh: University of Pittsburgh Press, 1965) p.8. Clive Aslet notes in *The American Country House* that the choice of hilltop sites for country homes is peculiarly American. (New Haven: Yale University Press, 1990) 47.

62. Walter Shaw Sparrow, *Our Homes and how to make the best of them*, London: Hodder and Stoughton, 1909, p.70.

tough feature for the architect and the decorator," nevertheless recognized that the vogue for big glass stemmed, reasonably enough, from the impulse "better to see something beautiful."[63]

Architects and interior designers objected to the larger windows for two primary reasons. The first was technical in nature. Sparrow pointed out that large windows disrupted interior comfort by creating more variation in temperature; windows gained and lost heat more quickly than walls, practical matters that clients could hardly be expected to consider. "That is why architects object to the very windows which their clients too often insist upon having. Why turn rooms into glass-houses...?" Sparrow asked.[64]

The second reason was aesthetic in nature and engaged core rationales of the profession. Quite regularly, architects and writers on architecture fretted over the effects that large window openings would have on the scale and proportion of walls. The disposition of windows, their rhythm and placement, and balancing their voids with the wall's solid surfaces, had been a staple of architectural composition for centuries and often served to distinguish one type of house from another. Articulating the movement between the most public spaces of the home through intermediary zones of increasing privacy had likewise been central to the tasks of architectural design. A glass-house threatened both. More than being simply an element of design, windows, that is, shaped and carefully defined windows, were a crucial hinge between inside and out and pivotal to nearly all conceptions of balance and harmony in architecture.

This conviction was not due, or not only due to snobbery grown from the architect's trained sensibilites. In residential design architects were professionally charged with cultivating snugness and the "sense of hominess, the sense of privacy." This was becoming impossible, however, as people called for more and more windows: "People demand windows everywhere! Each room

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63. Alfred Hopkins, *Planning for Sunshine and Fresh Air*, (New York: Architectural Book Publishing, 1931) 37.

64. Sparrow, *op. cit.*, p.70. He continues: "Peasants of Elizabeth's time said of Hardwick Hall that it was all window and no wall--a criticism to be avoided in the case of our own houses, surely."

must have two and often three" worried Ruby Ross Goodnow in 1914. Domesticity, etymologically related to the very act of separating inside from out, depended on the presence of enclosure. A window conceived only in terms of its transparency would turn the sense of enclosure inside out. The home, Goodnow wrote, must have its distinctive texture in order even to be recognized as a home. "This feeling vanishes for most of us, if we try to imagine such a scene in a house which is all windows."[65] [Figs. 2.1-2.2]

Unwittingly, clients risked more than imperfect proportions, inadequate interior layouts, limitations in their choice of furniture or decorative changes, and all sorts of sacrifices to convenience and efficiency. By overrating the value of views, they trifled with the sense of enclosure, the foundation of domesticity and the sole key to dear privacy, and all for a better view. Outside the embrace of one's own walls, the world was an unpredictable and often hostile place. Opening one's home and oneself to that world, looking over it but, at the same time, inviting glances inward, was therefore a perilous proposition. Goodnow marvelled that so many people chose this course anyway. So prevalent was the fad for large windows, she wrote, that a truly "radical idea" was not a glass-house, which obeyed current trends to the point of absurdity. Instead, "broad wall spaces and few windows" was the way she suggested homeowners might find domestic tranquility and express their aesthetic independence.[66]

It was not that such owners were radically modern and courageous souls, as Goodnow reported she had once believed, decades ahead of their architects in terms of sympathy with their age. It was rather that the value of a view was entering their economic spheres. They had been motivated to reach deep into their pockets in order to possess the view that thrilled them upon visiting a site or house for sale. More important for the present study than the particular

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65. "Walls and their Openings," Ruby Ross Goodnow, *The Honest House* (New York: Century, 1914) 84-90. The luck of the English, she mused, was to have a glass tax that kept windows small.

66. *Ibid.* Robert and Helen Lynd reported that in "Middletown," glass use in the home increased about fifty percent between 1890 and 1924. They imply that it was due to the decreasing size of yards which drove families to seek relations with the outdoors ever closer to the house itself. In *Middletown. A Study in American Culture* [1929] (New York: Harcourt, 1956) 96.

reasoning architects employed to criticize clients for their overrating of the view is the inference that fascination with the view was consumer driven. Although few owners rhapsodized their views, many architects complained that their clients were being distracted by their views from more important architectural concerns.[67] Once assembled, such complaints form a record of client interest in securing views from their sites.

To one notably perceptive observer, even when architects said nothing about views, they revealed how out of touch they were with what mattered most to their clients. Too often, wrote Mrs. George Draper, architects ignored the psychic consequences of house design in favor of increasingly irrelevant questions of style. She explained in an article that appeared in *House Beautiful* in 1927 that architects must force themselves to stand in the position of the owner. Drawing perhaps from the contemporary emphasis on consumer psychology in the advertising industry, she argued that architects should divine their clients' "imaginative needs." They should put aside their precious concern for historical details and address instead the sensations and perceptions of clients, even to the extent of slighting substance. Then, she wrote, they might understand why clients were so concerned with views: "Quite clearly the matter of what you are going to look out upon looms large in importance. . . . it is difficult to understand why so little space is given to the matter in architectural magazines." [Figs. 2.3-2.4]

> Is it possible that too much thought and concentration have been focused upon the type of house and the period of its interiors rather than the imaginative needs of the owner? Perhaps without giving less attention to the practical and decorative aspects of the building puzzle, we might give at least as much to the production of illusion.[68]

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67. This point will be developed further in the following chapter. Briefly: to an architect the location of a house is the site; to the owner it is also property. A client who has just paid a premium for a fabulous view will, no doubt, ask the architect to optimize it. Architects respond, sometimes unwillingly, to the social values placed on home and property, even as these affect and sometimes undermine fundamental values of architecture. In this way, the history of architecture intersects the history real estate appraisal and property taxation. Additionally, to the extent that architecture participates in the customs and beliefs of its society, such changes may also be ascertained by considering the history of architecture.

68. Mrs. George Draper, "From the Inside Looking Out," *House and Garden* (June 1927) pp. 140-72. Earlier writings also maintained that owners tend to think from the inside out. Usually though, this was a source of errors. In Lillie Hamilton French's *The House Dignified* (1908), for example, women, whose experience was often limited to the inside of houses, too often spoiled their architect's work by insisting on their own convenience, pp. 112-13. Also see Ethel Power, "Talking Points on Modernism," *House Beautiful* 75

Mrs. Draper's thinking was remarkably prescient. By the 1940's and '50's many architects were happy to publicize their creation of an explicitly illusory spaciousness that dignified an otherwise small house. More often than not, the vehicle for the sense of space was borrowed from the view. Whether or not they based their designs on a thorough analysis of their client's psychic needs, "the matter of what you are going to look out upon" came to occupy a great deal of space in architectural magazines.

An Incalculable Advantage

Still, while views were valued at the turn of the century and had the power to motivate homebuying decisions, mobilize capital resources, and induce all sorts of psychic satisfactions, nobody had exactly paid for one yet. Views were literally priceless: they were eminently desirable *and* no cash value could be affixed to them. They were a bounty given by Nature and, as such, could not be measured. The belief that they were in some way unassimilable to commercial interests may even have added to their significance, allowing views to appear as at least one simple pleasure inaccessible to the profane reach of the marketplace. Acquiring one for private enjoyment, however, was usually anything but simple.

In a home-design allegory written by the architect E. C. Gardner, practical and budget-minded "Jack" had failed in his attempt to design a house, in part because he reasoned largely in the categories of the marketplace. "Jill," his wife, had since taken over the task. Existing outside the sphere of everyday economic concerns, she was more in tune with the truths that governed the art of dwelling and recognized that even professional conventions of design might have to change.

> "Oh, but we must make the plans out of doors on the lot. ... We must fix the centre of the sitting-room in the most commanding situation, and be certain that the dining-room windows do not look straight into somebody's wood-shed. Then, if there are any views of blue hills and forests far away over the river, I shall be uncomfortable if we do not get the full benefit of them."
>
> "Don't you expect to have anything interesting inside the house?"

(June 1934) 60: clients will judge a house less by its outward appearance than by their mental inhabitation of it.

"Except my husband? Oh yes! but it would be a wicked waste of opportunites not to accept the blessings provided for us without money and without price."[69]

Besides transforming the design process, the view could also supplant the usual order of the interior, as Jack sheepishly implied. Belongings that would serve visual pleasure on the inside might pale before the treasure on the outside. But if their sitting-room occupied anything less than a commanding situation, Jack and Jill would not be any poorer in financial terms, only aesthetically. The view itself had cost them nothing. They were free to exploit or to neglect it. Only opportunities would be wasted should they fail to get the view's full benefit; no resources would be lost since none had been used.

It was not simply Jill's concentration on psychic satisfactions--or her inability to detect economic ones--that deflected attention from the money value of a view. Even when markets and money were conspicuous, views might be valuable but still not exactly subject to appraisal. The view was by far the most salient aspect of a 1919 advertising campaign that aimed to sell real estate at the Angeles Mesa real estate development in Los Angeles. In ad after ad, the developers featured "this VIEW from the windows of Angeles Mesa homes." View, they maintained, had tremendous value. "Multi-millionaires and kings have paid fortunes for an **outlook** upon valley, city and mountains no better than this." A little closer to home, the rich and prominent men of Los Angeles "have been glad to pay **extremely high prices** to obtain this coveted view-privilege" in areas such as Hollywood, Altadena, and Beverly Hills.[70] [Fig. 2.5]

Having exhausted themselves establishing that private views required great sums of money, the developers then engaged in an unprecedented act of generosity. Without stopping to explain the

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69. E.C. Gardner, *The House that Jill Built, After Jack's had Proved a Failure* (Springfield MA: W.F Adams, 1896) 17. Gardner was one of few architects who understood explicitly the implications of the view in terms both of form and design process. To make his point here, he assumes the voice of the owner, thereby taking literally the client's point of view.

70. *Los Angeles Sunday Times*, most editions from April through May, 1919 (Emphasis in original). A building boom had in fact caused a run-up in prices along the Santa Monica Mountains, though views were not actually isolated as the rationale. Before paved roads were common and with increased traffic, escaping dust was an important concern. Cars meant easier access to negotiate hillsides.

paradox, they claimed that at Angeles Mesa they were giving the view away: "The incomparable picture of mountain, valley and city, framed by the windows of Angeles Mesa homes, **has a substantial cash value**--but we charge nothing for it." In fact, continued one ad, buyers "pay less for choice 'view property'" at Angeles Mesa than for "low-lying, no view property" even in "less favored" areas. Perched on "'the balcony of Los Angeles,'" "your homesite commands a glorious vista." Still, the ads stressed, "**you pay no premium for it**": "At Angeles Mesa this glorious, entrancing view costs you **nothing**." View had not been a factor in determining the price of Angeles Mesa homes, they asserted. That was determined by the overall quality of the built environment and the measurable costs associated with providing new infrastructure.

Developers were clear that the view was worth something. It had, they said, facilitated their home sales.[71] They did not charge anything for it, however, because it was entirely unclear how one would charge for it: how it could be separated out as a component of value, how a price could be affixed to it, and perhaps most difficult, how a general public that had never paid for a view before could be convinced to begin doing so, even if kings and millionaires had allegedly done so before them. This may help to explain why the ads for Angeles Mesa neglected to point out that buyers might "flip" their view to realize its independent value, that is, receive the view for the price of the house alone, sell both, and pocket the difference. On the other hand, something novel was happening there. The view was still a gift, but it was no longer a gift of nature; it was a sales incentive from the developer.

Moreover, it was an effective one. Landscape views connoted leisure and a sense of luxury. Articles appeared in real estate periodicals singling out view as an important aspect of resort or luxury home development. Noting how a city in Michigan had advertised its "Million Dollar Sunsets," one author suggested that views might also play a role in the development of urban

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71. "The **view** from Angeles Mesa sold over $2,000,000.00 worth of property in a little over 24 months." (May 4, 1919) part II, p.7.

property.[72] Another article made the very fine distinction between a resort appearing bucolic and being bucolic. Only the former was necessary or even desirable since the resort could suffer no shortage of urban comforts. Presaging the formula for successful suburban subdivisions in the 1950's, the article claimed that for "summer home development": "There are certain salient features which are quite necessary. It must have the ATTRACTIONS of a rural or distant spot, yet must be accessible--and accessible by comfortable means." The development must *feel* distant but must *be* close to the city and the workplace. Accessibility might be reckoned by one's impatience but the perception of distance from the city could be adjusted by visual means. To make this pictorial point regarding summer home development, the author quoted Picturesque-era poet Thomas Campbell's words regarding landscape painting "distance lends enchantment."[73] The lesson was that the visual environment lends character to a development and may to varying extents fire desire or envy.

In more popular magazines as well, a language of commerce was permeating discussions of the view. With the right outlook and good design, home magazines noted, visual benefits might become financial gains. "Find your view and then capitalize it," exhorted Dorothy Nicholas in *House Beautiful*. "If you let it straggle away and get lost, you neglect one of the chief assets of your land." A lost view was an uncomposed view, "too ill-defined to be appreciated," still too much a part of nature. For Nicholas, the act of framing was thus the primary means by which to secure the view. [Fig. 2.6] She played on several meanings of the term to make her point. She referred to the material armature of viewing: "[one] of the joys of building is that your view is framed as soon as ever your carpenter gathers up his tools and departs." Once the tools and heavy lifting are out of the way, a compositional aspect materializes; the physical framing of an opening was prelude to the creation of a scene. "Your view becomes a picture, literally, after it is

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72. J.J. Fagan, "What facts about a given property should a subdivider have before deciding to purchase it for resort and summer homes?" *Annals of Real Estate Practice*, v.III, (Chicago: NAREB, 1927) pp. 76-83, 79.

73. James H. Murphy, "What facts about a given property should a subdivider have before deciding to purchase it for resort and summer homes?" *Annals of Real Estate Practice*, v.III (1927) pp. 69-75., 74. Campbell's poem is "Pleasure of Hope" from 1799 and included in *The Complete Poetical Works of Thomas Campbell* J.Logie Robertson, ed., (London, 1907) 2. See also, A. B. Miller, "Building the Right Community Spirit" *Annals of Real Estate Practice* v.III, (Chicago: NAREB, 1927) 306-13.

framed. Unframed, it is simply part of the outdoors. As such, it loses its punch. . . ."[74] Building, in other words, is an activity that aestheticizes landscape. More than that though, framing, in the context of the private home, makes a landscape available for personal use. It draws the landscape into the sphere of personal possessions. Thus, once made into a picture, the view becomes part of the built econo-aesthetic value of the property. Once she had framed it, the homeowner appreciated the view and the view, in turn, made the value of the home appreciate. No longer just an aesthetic activity, the act of framing became for Nicholas a financial one as well. It was a way of claiming a degree of ownership of the landscape and from that drawing material benefits. This is distinct from a Picturesque demonstration of ownership by displaying to oneself and one's equals the landscape actually owned.

Nonetheless, it was left to the homeowner to capitalize the view since it hadn't been by other parties. Architects were slow to recognize the economic logic that homeowners followed more easily. Bigger windows meant more view. With views looming larger in terms of perceived property value, bigger windows extracted more cash value from the landscape than small windows. Large and, in particular, unmullioned windows, are the only aspect of the twentieth century logic of the private landscape view entirely in place in the nineteenth century.

With the greater scope of suburban development in the 1920's and with some degree of consumer demand, even design professionals began to endorse the trade-offs sometimes made to capture the view. Just as Horace Cleveland had feared in 1873, views were distracting owners from more important considerations and diverting energies best utilized elsewhere. Only, by the 1930's, architects were supporting their clients' preferences: "Choice views of scenic beauty are usually cherished in exposures and are often, *and rightfully so*, purchased at the sacrifice of commonly stressed advantages," reported a home-design manual in 1938.[75] But the cost of the view was

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74. Dorothy Nicholas, "Framed Views," *House Beautiful*, v. 77 (March 1935) pp.25-26. While Nicholas referred to views taken from outside the outside, the logic and rhetoric of her article apply equally to interior views, a point she makes herself.

75. Emanuel E. Ericson and Ray L.Soules. *Planning Your Home*. (Peoria, IL: Manual Arts Press, 1938) 38 (Emphasis added).

measured in convenience and not in dollars and cents: it was was an "incalculable advantage."[76] It was absolutely valuable but imprecisely so. In the United States, a nation sometimes criticized for putting a price on everything, the view was also a contradiction in need of resolution.

The Alchemy of Appraising

> In the alchemy of appraising, the Realtor must transmute the intangible into the tangible in such proportions that the result will be a reasonable and fair value in exchange, which anyone of a dozen "John Does" would be justified in paying.
>
> -A. P. Allingham, 1931[77]

The codification of abstract values was motivated by the manifold effects of urbanization and industrialization throughout the nineteenth century. With economic productivity linked increasingly to machinery, land was no longer the source or indicator of wealth that it once had been. New and different forms of wealth and property, such as corporate shares or other financial instruments, were appearing. Evaluations of these new sorts of property for purposes of exchange or the settlement of disputes became increasingly complex. Courts struggled to determine damages for losses sustained for a use of property that hadn't existed a generation earlier.[78]

As state and federal governments grew, especially during wartime, they also sought to recognize and tap the new entities in which wealth lay. In the early nineteenth century, the "general property tax," so named for its relatively uniform approach to all property, had served along with revenues from fees, tariffs, and land sales, the needs of a limited government. While market

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76. "Outlook--A beautiful view is always an asset, and that house has an incalculable advantage the windows of which overlook a river, a lake, or the ocean, or command a view of broad prairies, or give a glimpse of hills or mountains, or look down upon the streets of the city spread out like a map and outlined at night by twinkling lights." Greta Gray, *House and Home. A Manual of Practical House Planning* [1923] (Chicago: Lippincott, 1935) 7. Neutra wrote the introduction to this edition.

77. "The Appraisal of an Ordinary Dwelling," in Henry Babcock, ed., *Real Estate Appraisals. Discussions and Examples of Current Techniques* (Chicago: Appraisal Divisionk, NAREB, 1931) 183.

78. For example, a linear assembly of land and rights-of-way was invaluable to railroads but awkwardly shaped for other sorts of activities. Often it was never ever bought in the first place. A dispute over a single link in the chain could paralyze operations system-wide.

transfers of land had become much more frequent with improvements in transportation and increased national income, the growing practice of annual tax collection meant that property needed to be assessed regardless of whether or not it had recently changed hands. A series of tax reforms swept the country in the late nineteenth century with the result that different kinds of properties were recognized and corrollary means of establishing value put in place for purposes of better tax collection. Land would consequently diminish as a source of revenue for all but local governments. The recognition of new kinds of property, along with the demand for monetary evaluations of them, stimulated the search for consensual means of assessment. By the end of the nineteenth century, a number of assessment procedures had been codified and the "basic concept of modern technical assessment" established. The goal of all such procedures was finding some reasonably fair way to determine value.[79]

It was not until about the 1920's, however, that a set of specialized concepts and procedures crystallized into the profession of real estate appraisal. While individuals in the 1880's had made it their vocation to sell parcels of land for railroads and utilites, they organized only after the turn of the century, establishing a national association in Chicago in 1908. After the hype and hucksterism of the late-nineteenth century, improving the profession's public image and articulating an ethics upon which popular trust might be granted was the board's first task. The rapid rise in mortgage credit for homebuyers and concomitant increase in institutional participation in mortgage markets put pressure on real estate agents to demonstrate their claims of value. Once begun, the professionalization of real estate appraisal was rapid in response to the growing pace of land transfers, increasing numbers of lenders, and greater consumer awareness. The American Institute of Real Estate Appraisers formed early in the 1930's and began publishing its journal, now called *The Appraisal Journal*, in 1932. Quickly and seemingly naturally, appraising assumed a central role in everyday affairs in America. The profession's fundamental

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79. Joseph D. Silverherz. *The Assessment of Real Property in the United States*, Special Report of the State Tax Commission, No. 10, (State of New York, Albany: J.B. Lyon, 1936) pp. 1-9, 255-266 (quote is from p.255). See also, Jens Peter Jensen. *Property Taxation in the United States*, (Chicago: University of Chicago Press, 1931) pp. 429-32, and James Dougald Henderson. *Real Estate Appraising. A Practical Work on Appraising and Appraisal Methods* (Cambridge, MA: Banker and Tradesman, April 1931) pp. 136 ff.

task, "establishing a measure of value," was so familiar to the average citizen that by 1937 Stanley McMichael, author of one of the industry's leading handbooks, marvelled that standardization hadn't occured much sooner.[80]

Though determining value was the cornerstone of the profession and doing so scientifically was its ambition, "value," to many appraisers, was a desperately vague term.[81] "Value, its meaning and how to measure it" was typically the first or second chapter of any appraisal manual.[82] There was something unexplained, something "alchemical" in the way an appraiser saw a profit margin in what the layman thought was just a meadow. And the layman might well be excused since the "question of what makes things valuable is probably one of the oldest problems in economics."[83] Accordingly, even in the most sober appraisal manuals, "value" was defined in the most general way as the "aggregate properties of a thing that make it useful or desirable" or the "present worth of all the rights to future benefits of ownership."[84] Rather than a weakness though, such definitions were specifically designed to allow for the range of often unpredictable influences on

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80. "Since time began, mankind has been engaged in formulating theories, processes, and rules for fixing value. . . . It is surprising therefore, that through the ages so little has been accomplished in the standardization of real estate values." *McMichael's Appraising Manual, A real estate appraising handbook for use in field work and advanced study courses*, 2nd edition, New York: Prentice-Hall, 1937, p.6. For most of the history of real estate transactions, prices were set by the consensus of those few individuals familiar with prior trades. This continues to be the case for properties that are rarely transferred.

    See also, Henderson, *op.cit.*, p.1; Silverherz, *op.cit.*, pp. 4-8; Pearl Davie, *Real Estate in American History* (Washington, DC: Public Affairs Press, 1958) chapters 1 and 2; Alan Rabinowitz. *Development of the Real Estate Industry 1925-75*, typescript working paper, Seattle: Rabinowitz, 1978; and Marc Weiss, *The Rise of the Community Builders*, New York: Columbia University Press, 1987, pp. 13-32.

81. In 1939, Walter Pollock lamented the prevailing "confusion of thought as to concepts of value" and the legislative failure to require "systematic processes of appraisal." He encouraged, in response, a scientific basis for appraising in "Improvements in Real Estate Assessment Techniques," pp. 248-55 of *Property Taxes*, New York: Tax Policy League, 1940, (quote is from p. 248) and earlier in "A Scientific Approach to Real Estate Valuation," *Annals of the American Academy of Political and Social Science* v. CXLVIII, (1930) pp. 97-105.

82. The title of chapter two of *McMichael's Appraising Manual, op.cit.*

83. Thurston Howard Ross, "History of Value Theory," *Appraisal Journal*, VI:2 (April 1938) p.120.

84. *Basic Standards of Appraisal Practice and Procedure* (Washington, D.C.: Association of Appraisal Executives, 1936) 11.

property value. The real estate appraiser's stock-in-trade was "intangibles" and "externalities," that is, abstract or remote factors that might nevertheless have a direct impact on the evaluation of a specific parcel of land. A property's worth could be affected by shifts in global politics or national job and credit markets or, equally, by the bad taste of an eccentric neighbor or the whimsy of a prior owner.[85] For the appraiser, what was common to all such influences was that they had to be made "comparative and measureable in terms of money or its equivalent."[86]

Of all building types, detached single-family houses were the most troublesome sort of appraisal. In the first place, appraisers had to rely on "indirect" methods of appraisal. Apart from utopian communities, the residential suburb was the first form of settlement in the United States that had nothing to do with productivity *per se*. To a large extent, that was the suburb's primary selling point. As such, estimates of income from agriculture or commerce that might come "directly" from the agricultural produce or manufactured products which came from a property could not be used as a basis for determining value.[87] Instead, to evaluate one residential property, appraisers turned to the marketplace to learn about other properties. These other properties were a random sampling determined less by comparability than by which had most recently changed hands. Then, the appraiser would make upward or downward adjustments for any anomalous conditions at the particular site in question. Though basing the price of one parcel on that of other parcels seemed

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85. Despite the recognition of global influences in local affairs, real estate markets are still considered primarily local and remain important sources of tax revenues only to municipal or county governments. See Silverherz, *op.cit.*, pp. 8-9.

86. Pollock, *op. cit.*, 248. The long-term trend in real estate appraisal is toward increasingly precise evaluations.

87. "Site value" was related to "social surroundings," which remain "almost entirely a matter of opinion," as opposed to the "productive value" of land. Even with this distinction, productive value was believed to underpin site value. See W.A. Somers, *The Valuation of Real Estate for the Purpose of Taxation* (St.Paul, MN: W.A. Somers, 1901) 5.

Separation from not only the places of work but the very idea of economy and production had in fact been central to the rhetoric of suburban promotion throughout the nineteenth century. Earlier, though, when detached houses appeared mostly on farms or estates, a certain level of agricultural productivity was assumed, for purposes of establishing land values. The "general property tax," largely eliminated by the middle of the century, was based on this assumption. Of course, residential property may be held as an investment, in which case such analyses would be valid. Establishing rents, however, would be the focus of appraiser's activity and would be subject to some of the same consideration of intangibles. See, for example, the discussion of Carol Aronovici's book below.

unscientific to many appraisers, a commission on standards of practice argued that such procedures had necessarily to be accepted. Real estate brokers and tax officials alike agreed that the value of residential real estate was "more or less accurately ascertainable in the market" and that, just as important, no more precise method seemed available.[88]

Appraising detached houses was difficult for another reason as well. While market data were a matter of good record keeping, individual properties were purchased by individuals.[89] A market estimate of value would ultimately be corrected, in a sense, by the peculiar needs or idiosyncracies of an individual in response to the peculiar features of a piece of property that was unique by definition. In other words, beauty or convenience was a matter of perception. Volatile subjective values ruled calculations of worth. The tautology at the heart of the appraisal industry was that something had a cash value only if someone were willing to pay for it; exchange value, appraisers agreed, is mercurial when the merits of one property over another rest so resolutely in the eye of the beholder.[90] In 1954, the single-family house remained "a perennial appraisal headache." But it was at the same time "the keystone of the appraisal business." Suburbanization had made single-family housing, with its resistance to precise assessment, the predominant form of land ownership in America.[91]

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88. Jensen, *op.cit.*, p. 50. 1929. Still, in his 1936 study, Silverherz noted a general lack of standardization and many regional variations, in Silverherz, *op.cit.*, p.266.

89. Appraisers recognized that even market data might be subject to revision if, for instance, a sale was completed under duress or for unrecorded favors, or if a sale was based on information not widely available at the time.

90. As Thurston Ross began his essay, "Anything we want and which costs us some effort to get is valuable." Ross, , *op.cit.*, p.120.

91. Edgerton North, "The One-Family House--A Perennial Appraisal Headache," *Appraisal Journal*, 22:1 (January 1954) pp. 7-14. Three other installments of his analysis followed in April, July, and October of the same year. Direct evaluation or capitalization was useless for residential real estate since the method could not parse such factors as "the amenities of ownership," which, Edgerton wrote, were mostly psychological. Even comparable properties, or "comps," made unsettling assumptions regarding builders' ethics, obscure buyer motivations, and other "nonrealty items" including architectural taste, with which most of the article is concerned.

To a large extent, the predominance of either objective or subjective values determined whether direct or indirect methods would be employed in an appraisal.[92] Moreover, sentiment had also to be either discounted or inflated: besides immediate impressions, "value has its existence because of the expectancy of future benefits through ownership." Citing this as a tenet of the Standards of Practice for Realtor Appraisers, A.P. Allingham summarized the dilemma: "In a residence occupied by an owner, clearly that expectancy is not one of income but of satisfaction, service, protection, and intangible benefits which cannot be measured in terms of money. Yet we are here faced with the obligation to do some mental gymnastics and find a money value."[93] Evaluating impressions, visual and otherwise, was thus pivotal for those who appraised real estate. Managing impressions, consequently, was essential for those selling it.

While recognizing that appraising real estate was no science, appraisers nonetheless tried to regularize the mechanisms by which differences from one unique property to another might still be compared, classified, and calculated. One of the most important tools in this effort was the appraisal form, a checklist offered in many appraisal manuals and eventually standardized under the auspices of the Appraisal Institute. Form in hand, the appraiser was expected to visit a particular property and note the condition of each item on the checklist. Upward or downward adjustments could then be made depending on the degree to which the observed features diverged from some notion of average or typical conditions. Land, usually computed separately, was also modified in regard to deviations from a typical site along coordinates of depth of lot, overall shape, frontage, slope, etc.[94] Such checklists provided guidance regarding exactly what should be observed and what was a valid component of value. In this way, they formalized beliefs about what affected value and, so formalized, affected further evaluations.

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92. "In distinction to *subjective* value, we have *objective* value, which means that the value of a thing is tied up in the thing itself," rather than "only in the mind of man." Ross, *op.cit.*, p.121.

93. In Allingham, *op.cit.*, p.184. See also, "How Much is My Home Worth?" in Henderson, *op.cit.*, pp.147-48.

94. Silverherz, *op.cit.*, p.260.

While views were noted anecdotally in discussions of value, no appraisal form at the time included a specific line item for them. If anything, attention in an appraisal was directed toward more tangible aspects of valuation. Allingham's "demonstration appraisal" in 1931, for instance, began with the observation that the value of a single-family home could not be adequately assessed in terms of reproduction costs, that is, "what it cost to build, less depreciation."[95] Nevertheless, he concurred with other experts that initial construction costs should serve as the foundation for the classification of houses, rather than nebulous and subjective attributes such as style: "the first thing is to classify the dwelling, not by the outward appearance against which we have scriptural warning, but by the things which the walls enclose." In this model, the appraisal class of real estate was based on the house itself: its finishes, features, systems, and surfaces.[96]

Emphasis was placed on physical possession of tangible things and the dollars paid for them. Subsequent adjustments to these hard costs were based on the appraiser's experience in the marketplace, itself more or less measurable in terms of years. While the appraisal form lent itself to this objective accent, some writers had been explicit about the procedural implications of measurable and non-measurable aspects of the home. Frederick Morrison Babcock, a founding figure of the appraisal industry, suggested in 1924 that intangible aspects of a property be considered in the aggregate. "No attempt is made to deliberately study and measure each element of value," wrote Babcock. Instead, the home must be judged "as an entity . . . all such

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95. Allingham, *op.cit.*, 183.

96. *Ibid*, pp. 186-189. While there was little standardization in the numbers appraisers reached, Silverherz found appraisal procedures characterized by a summation of features moderated by some accounting for depreciation and obsolescence, which is then cross-checked with comparabe properties. Silverherz, *op.cit.*, p.266. NAREB recommended considering besides construction costs: market data, zoning and site restrictions, local economic conditions, local transportation and infrastructure, architectural style and current taste, and "modern improvements" including "ideas as to health, fresh air, education, and women in industry." See Henderson, *op.cit.*, pp.149-50.

Even when view seemed definitive of a site, it might be mentioned simply as an added benefit. Homer Hoyt's monumental study of Chicago real estate describes the intensive residential development along what is now called Chicago's "Gold Coast." Values there rose rapidly in the 1930's and prices were the highest in the city per square foot. Hoyt does not mention the view at all as a motivating factor, citing instead the development of Lake Shore Drive and the establishment of bathing beaches along the lakefront. Homer Hoyt, *One Hundred Years of Land Values in Chicago*. Chicago: University of Chicago Press, 1933, pp. 304-310.

unmeasurable elements are considered in terms of the home as a whole."[97] By definition, intangibles did not lend themselves to measurement or even to easy identification.

By the end of the 1930's, though, this attitude had changed. Writers interested not only in real estate but urban affairs in general noticed that views contributed something quite specific to the value of a property. Stanley McMichael had appended to the 1937 edition of his appraisal manual two tables suggesting adjustment ranges for certain portions of home appraisal. Without being any more specific, the tables suggested that "View and climate" could add up to fifteen percent to the value of a home. McMichael, also not very committed in this regard, thought the tables "interesting."[98]

An urban economist, Carol Aronovici, concentrated on the roles of views in determinations of property value in her 1939 book, *Housing the Masses*. How exactly was a view valuable and in what evaluative category does it belong, she asked. She concluded that although the view was not actually part of the site being evaluated, it should still be considered as if it were. With some qualifications, she wrote, views came under the heading of "raw land": "View may be considered as part of the value of land. Although this advantage is not an integral part of what might be called raw land, it is nevertheless inherent in the position of the site in its relations to surroundings."[99] Subjective value should reside, economically speaking, with the subject. Additionally, Aronovici noted that natural views were more valuable than other kinds of views, and suggested that property values might be stabilized by, among other things, the "conservation of vistas." Still, the idea was daunting, as she pointedly observed: "A vista that culminates in a gas tank, a tangle of railroad trucks, an abandoned factory, or a screaming advertisement would

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97. Frederick Morrison Babcock, *The Appraisal of Real Estate*, New York: Macmillan, 1924, p. 208.

98. McMicheal, *op.cit.*, pp. 329-30. The tables were prepared by Thurston Ross.

99. Carol Aronovici. *Housing the Masses*, New York: John Wiley, 1939, pp. 4-5. The question has still not been entirely settled in this regard; view routinely oscillates between being a "physical characteristic," an "environmental force," part of "location," part of topography, and, in all cases, incomplete or wanting without the proper design attention. See, for example, Appraisal Institute, *The Appraisal of Real Estate*, tenth edition, (Chicago: Appraisal Institute, 1992) pp. 212, 214-15, 301, 566-67.

hardly enhance the residential value of a building site. Just what standard of measurement could be applied is difficult or impossible to determine." Acknowledging the view's value was one thing but, with value located so resolutely within the viewer's eyes, measuring it was something altogether different.

Undeterred by the formidability of the task, however, Aronovici went on to conjecture that, all else being held equal, the view might be the decisive factor in determining value. Taking the simpler case of establishing rates for apartment rentals, she suspected that, "given a particular standard of uniformity in the planning of apartment space, . . . rents could be based upon a differential derived entirely from the outlook to window space." Garden or water views and views with a clear visual climax "would play an important part in determining the rental of residential quariters and would affect rental rates."[100] Anything that might increase the role of the view would also increase the value of the house itself, she recognized. The more open the house plan, the more it could foster outdoor living and "the greater is the influence of the environment upon land value. More and more is this conception of the relation between the inside of the building and its surrounding area becoming a factor in housing." She observed that whole new categories of housing, such as hillside housing, could benefit from design that indulged views and other contemporary tastes in housing. In a sense, the more a house accommodated one, the more a view might be considered part of the property and, consequently, the more it could contribute to the property's value. With this reasoning, a premium would be placed on design that emphasized the view and the use of big windows.

Aronovici's claim makes clear two defining characteristics of twentieth-century private views, they were unowned and they enjoyed primarily from inside the dwelling. The latter point would also explain her placing the view within the property boundaries for purposes of economic evaluation. Beauty was on the property of the beholder. It was also about this time that "view"

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100. Aronovici, *op.cit.*, pp. 15-16.

appeared on appraisal forms as a distinct category for evaluation.[101] By 1951 the *National Real Estate and Building Journal* was asserting that "rule number one" of planning a home was to focus on the site. This was less a matter of measuring square footage than it was of finding the view and then fixing it in a house plan: "Instead of going to the lot with a measuring tape, I take along a surveyor. We determine the location that will get the best view . . ."[102]

Though feelings on the subject had been mixed earlier in the century, more architects seemed to agree that accommodating the view in significant ways would increase the value of the service they provided. The reason advanced most often was that buyers wanted views. They knew this not through their own contact with clients, however, but through the efforts of real estate professionals who, architects realized, were well-positioned to learn about consumer demand.[103] Design, architects sometimes had to remind themselves, begins with a statement of client needs, formalized in the architectural "program." And real estate professionals seemed to have their finger on the pulse of consumer need.

This reasoning was put forth by architects A. Lawrence Kocher and Albert Frey in *Architectural Record* in 1931 for an article on window design. The purpose of windows, they began, was to provide light, air, and "unobstructed view of surroundings." They knew this because the brokers

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101. Today, for instance, "Site/View" is a line item appearing above "Design and Appeal," with room for pluses and minuses, in the "Valuation Section" of "Uniform Residential Appraisal Report" and appears also as a category in "Property Description and Analysis." *The Appraisal of Real Estate* (Chicago: Appraisal Institute, 1992) 566-67.

102. *National Real Estate and Building Journal*, 52:1 (January 1951) 18.

103. In 1914, for example, Garrett H. Irving had suggested that architects working alongside real estate developers could increase their understanding of how to pitch design to designated markets and thereby direct their appeal to "people of taste and refinement." Garrett H. Irving, "Architectural Design as an Aid to Real Estate Promotion," *Brickbuilder* (December 1914) 295. Noticing the value attached to light and air in commercial buildings, brokers asked: "If light and air are sought for the business office, why not for the living room?" and suggested that highrise apartments would become popular for providing a well-lit environment. In "A Residential Skyscraper for 79th Street and Park Avenue," *Real Estate Magazine* (August 1912) p.56. Hoyt also mentions light and air as important factors in the success of Chicago's commercial highrise buildings. Hoyt, *op.cit.*, 150-51.

said so. Reproducing real estate advertisements from the New York Herald Tribune whose ad copy highlighted "an unobstructed view of the Hudson and beyond," Kocher and Frey added: "The public wants light and sunshine, otherwise realtors would not stress it. . . . Architects should be guided by such demands." [Figs. 2.7-2.8] They offered other reasons of course for the use of big windows: large muntinless windows would minimize glare, thus reducing eyestrain, and, by matching the size of openings with manufacturing expertise, mend the split between technological progress and architectural form.[104] But looking to consumer motivations for buying, or for liking what they bought, became an increasingly important topic in architectural literature.[105] Listening to consumer needs, John Gloag wrote in 1939, was the primary distinction between residential practice in the United States and in Europe.[106]

While designing for consumer demand occupied at least some architects, divining it propelled the real estate industry. Brokers and appraisers staked their livelihood on staying abreast of consumer motivations and preferences and then appealing to them. To appeal to clients, trade periodicals told brokers to find something emotionally powerful and stress above all the "desirability of the property." Getting clients to visit a site was often seen as the broker's first task, with the final selling price bearing a positive relation to the extent of market exposure.[107] In this light, one of the

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104. "Windows," *Architectural Record* 69:2 (February 1931) 134.

105. "...find out what the buyer wants," *Architectural Record* 79:4 (April 1936) pp. 327-330. Having designed about 15,000 houses in 35 subdivisions, architect Arthur Edward Allen knew quite a bit about "major buying factors in the subdivision house." In the living room: satisfying "orientation and fenestration for light and outside views and spaciousness are most important." See also, Nelson and Wright, *Tomorrow's House* (1945) 6, 176 and throughout.

106. John Gloag, "The House in America: A Comparision," in Patrick Abercrombie, ed. *The Book of the Modern House. A Panoramic Survey of Contemporary Domestic Design* (London: Hodder & Stoughton, 1939) 284.

107. Brokers were advised to stress something emotional or exciting about the property, to touch upon the "desirability of the property." In "Writing Classified Ads," *National Real Estate Journal* (November 1936) 33. What sorts of emotions were activated by more modern view descriptions? In his how-to book for aspiring real estate professionals, Lawrence Danks includes "breathtaking" in the "emotion" class of his taxonomy of classified-advertisement adjectives. In the common wisdom of the industry, such terms create "grabber headlines," which appeal to strong emotions to assure the ad will "make contact with the reader" and induce a maximum of visits to the site. (Words like "grand" or "unmatched" belong in the "superlative" group, while a word like "vast" finds itself in the distinctly unsuperlative category "large words," which

most significant developments in house advertisements was the emphasis placed on what could be seen through its windows. By the 1950's, views were often a part of classified real estate ads. In the *Los Angeles Times*, ads stressing views were typically breathless and dozens of developments were named to fire desire: "Grandview Park," "Mountain View Homes," "Sunland View Estates," "Hillview Park Estates," "Green View Homes"; "Panoramic View" was sometimes used as a place heading, appearing just above the houses for sale in Pasadena, and "Hilltop View" occasionally preceded listings for Hollywood.[108] However distorted a lens on society this may be, finding views advertised at the apex of a market hierarchy of "desirability" indicates to some extent contemporary social values.[109] At the very least, the evidence gathered from such sources is not inconsistent with observations of the same phenomenon from within the discipline. In a section of his book dedicated to the tasks of views, Robert Woods Kennedy noted that a client typically gave the architect great leeway regarding most aspects of house design: "But he considers views his own personal property."[110]

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seems to be the root group of view adjectives. Other emotions may be reached by words that trigger "greed" or "peace and tranquility.") The emotional basis of housing decisions, where economics allows such a luxury, was well-recognized decades earlier. Drawing from over a thousand interviews, editors at *Architectural Forum* concluded that: "The urge to own is based more on emotional than on financial grounds; is more concerned with satisfaction of ego than with considerations of economy." Accordingly, Danks advises that the language of real property advertisement be directed at the emotional core of the otherwise economically rational man. Is it merely coincidence in this field that the potential buyer is commonly referred to as 'the prospect'? See Lawrence Danks, *Real Estate Advertising* (Chicago: Real Estate Education Company, 1983) 164-177, and "The Urge to Own," *Architectural Forum* (November 1937) 377.

108. *Los Angeles Sunday Times* (3 May 1953) pt. 1, 16-17; pt.5.

109. The relationship of architecture and the history of real estate remains almost entirely unexplored. Real estate ads are one place at least where profit motives may serve the interests of the historian.

110. *The House and the Art of Its Design* (New York: Reinhold, 1953) 474.

Permanent Panoramas

> There is more to the house than meets the eye that scans the real estate section of a newspaper.
>
> Bernard Rudofsky, 1955[111]

By the middle of the 1950's, the transmutation of domestic values into commercial ones was far enough along to attract the attention of contemporary critics.[112] Environmental quality, in the neighborhood and within the home as well, was being exchanged, critics charged, for marginal increases in profits. The developer could squander those extra earnings on ephemeral delights, but the neighborhood, with all its physical failings, would last a very long time. Hundreds of families might have to accommodate themselves for decades to entirely unnecessary shortcomings, avoidable with a little more forethought and a little less greed. For their part, developers emphasized "splash" features, such as a sunken living room, that might focus buyers' attention on one amenity and distract them from the dearth of others. Vincent Scully observed then a new stage in American architecture that was directly opposed to such gimmicks: "It rejects the undignified, materialistic formlessness to be found in the Real Estate section of any Sunday newspaper."[113]

While complaints were many, one of them was the view, or rather, the absurd notion of designing a house around a view that didn't exist. Developer Arthur Levitt's innovations in Levittown, for instance, included "a sixteen-foot-long picture window in the living room, although unfortunately, as the critics so often point out, the picture which the picture window framed was usually

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111. Bernard Rudofsky, *Behind the Picture Window* (New York: Oxford University Press, 1955) 6.

112. It should be remembered that a consumer orientation in architecture was for many if not most architects an explicit aim. Critics sympathetic to this effort allowed that mistakes were made on the path toward a greater good. See Joseph Mason, *History of Housing in the U.S., 1930-1980* (Houston: Gulf Publishing, 1982) 69; Neutra wrote his 1954 *Survival Through Design* to the "consumer of physical design," (New York: Oxford University Press, 1954); and Nelson and Wright thought in particular that: "Big, well designed windows are the trademark of modern architecture." Nelson and Wright, *op.cit.*, 151.

113. He was speaking about a trend toward "order and clarity in design" that he perceived in the spare volumetric compositions of Philip Johnson in the early 1950's. In "Archetype and Order in Recent American Architecture," pp.215-261.

somebody else's picture window, sixty feet away."[114] In the form of the picture window, expectations of great view were built into nearly every suburban home after World War II. Property values could suffer when these expectations were not met.[115] This helps to explain the sheer number of articles in popular periodicals dedicated to instructing homeowners how to go about creating a picture for that large sheet of glass in the living-room wall.

While the critics were certainly accurate in their accusations that architecture was changing under commercial pressures, they overlooked the point that views were also. In the nineteenth century, private landscape views were recommended for their picturesque qualities, the creation of a picture not only pleasing but one that might stimulate a charming association or demonstrate the owner's artistic sensibility. By the 1950s, the promotion of views centered less on the composition and appreciation of a fine view and more on the view's contribution to the overall capital value of the home. Gradually but explicitly a view was becoming accepted as part of the price of a piece of property and, as a result, approached by architects and clients alike as a durable good. Any architecture that aspired to some level of integration with its individual site had somehow to address the fact that the entire landscape had entered the sphere of commodity relations.

This process was brought into sharp focus in 1951 with an article entitled "The Value of View," written by Leonard Cowley and published in *The Appraisal Journal*.[116] Perhaps for the first time

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114. William Dobriner, *Class in Suburbia* (Englewood Cliffs, NJ: Prentice-Hall, 1963) 88. David Riesman found in the picture window a contemporary obsession with conformity that overlooked its own uselessness: "writers point to the uniformity fo the ranch style, the everpresent television antennae, the lamp in the picture-window (which ususally provides a view of the nearly treeless street, the cars, and someone else's picture-window). Observers have been struck by a kind of massificaiton of men in Levittown ..." and elsewhere. See David Riesman, "The Suburban Sadness," in William Dobriner, ed., *The Suburban Community* (New York: Putnam, 1958) 376.

115. Real estate appraiser Ray Arnold knew of one ranch house that depreciated in value because: "There is no 'picture' for the picture window." In Ray Arnold, *How to Estimate Market Value in Selling Real Estate* Englewood Cliffs, NJ: Prentice-Hall, 1962) p. 81. "Poorly placed picture windows" were one of the "obvious negative factors" in modern home planning, in Education Committee, *The Appraisal of Real Estate* 5th edition (Chicago: American Institute of Real Estate Appraisers, 1957) 139.

116. (April 1951) pp. 239-242 (Emphasis in original).

in print, a professional real estate appraiser asked: "What is the value of *view*? . . . Can it be set apart from the other components of a property as so many segregate a property's site and structure? Is *view* an entity . . . ?" Certainly a view, that is, a natural view, was desirable, even necessary, Cowley celebrated. Like the alchemical hearth before it: "*View* transforms a house into a home." Though a "magic word," "view" was in reality the result of careful design and concentrated effort. Despite designers' best efforts, however, demand for views was outrunning the supply of them: "Nature is unable to supply a limitless amount of *view*." Instead of triggering concession, though, the shortage in good views should be taken as a challenge. They were much too valuable to do without:

> When one cannot capture a view he must create it. Artificial view is becoming more and more a necessity in those areas where duplicate houses, similar in shape, size, color, and construction limit the possibilities of natural pictures. They cannot all have selected natural view. Here prefabricated view comes to life.

Should one property owner be insensitive to the neighbors' visual needs, it would be worth the time and money "to obtain permission from the owner to clean, maintain, and even plant" the offending property. Regarding one's own home, especially an older home, the solution involved was architectural form: "it may become necessary to alter the construction in such a way as to provide windows which will open upon the views desired. . . . the enlargement of windows, especially the widening of windows, to catch the sweep of a more expansive scene, may provide the answer to the view seeker." Focusing on questions of value rather than the niceties of architectural design, Cowley wrote that capturing the view was important enough to dictate the overall spatial organization of the home: "It is the arrangement of rooms that must be subject to correction in favor of the view." Architecture might bring a home buyer to the house, but, as Cowley put it, "it is what he sees through the windows of that house that makes him wish to remain." In an era of increasing standardization in housing design, the view, for better or for worse, gave a house its individuality. And a house's value, "whether it is financial or aesthetic," was entirely dependent on those qualities that made it unique. Correspondingly, much architectural attention at this time was focused on the creative acquistion of vistas, discussed in more detail in another chapter.

Despite placing view at the very center of the amalgam that made up economic value in a residence, Cowley still hesitated translating it directly into dollars and cents: "*View* is an intangible asset--a factor of value which can only be weighed in the human mind. Its value lies in its ability to create desire for possession or pride of ownership, and its ability to keep that attitude alive." While he paused before taking the next step toward commodification of the view, Cowley left open the possibility that aesthetic value might be readily translated into financial value. His article, appearing in the leading organ of real estate appraisers in the United States, was ardent, if a little over the top, but had any appraisers missed the role of view up to that point, they could no longer. While he left unanswered his ontological question regarding the objecthood of the view, he was confident enough of its attractions to summon it into the arena of finite and competing resources.

Obliquely, but incontravertibly, Cowley revealed what it was that made the view so very valuable. Aside from its powerful aesthetic appeal and the full range of psychic satisfactions that such appeal might entail, the view was everlasting. Architecture might maximize the view, even increase its value for a specific property, but buildings come and go, they grow old and, sooner or later, fall apart. In actuarial terms, buildings depreciate. Land, however, is forever. It is durable and irreplaceable.[117] Concurring in principle with Aronovici before him, Cowley concluded that view, if it wasn't exactly the same as land, belonged in the same category: "Unlike paint, paper, or other perishable portions of a building, *View* is an integrate part of the house which needs no refinishing, no refurbishing, no renovating, or remodeling. *View* is ever changing with the seasons, everlasting in the eyes of its possessors, . . . a constant asset of a home."[118] Being both man-made and everlasting, the view represented a kind of synthetic timelessness. As part of the

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117. This distinction and its incorporation in assessment practices was a central achievement of the late-nineteenth century tax reforms that led to the classification of properties. Despite any number of anomalies in the administration of property taxes since then, depreciation remains the primary difference between land and the improvements placed upon it. Realty in general is strongly marked by the perception of permanence or exceptional durability. "Real property, as far as the physical objects go, includes land and anything permanently attached to it." See Jensen, *op.cit.*, 105. Appraisal forms, too, are typically divided into two sections, one for land and the other for improvements.

118. Cowley, *op.cit.*, 242.

house, the view was an improvement; as something permanent, it was part of the land; encompassing neighboring properties, it was an environmental factor. In all cases, the view was unique, durable, and, with the right improvements to take advantage of it, a joy forever.[119]

Stability and durability are notions so persistently associated with architecture throughout Western history that they are often identified with it. Institutional claims of permanence are harder to dispute once the arguments are made in steel and stone. It is no accident that the hearth, for instance, with its contrast of enduring stone or brick and ever-renewed fire, could serve as the backbone of nineteenth-century notions of domesticity.[120] A view could only replace the hearth as a center of domestic representation, however, once it acquired similar qualities.[121]

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119. The separation of land from improvements in determinations of value is a useful fiction but, in a final accounting, an impossible one. Allegedly inherent properties of land may remain indiscernible until recognized by improvements or a new technology. A tool as simple as a plow may have a great effect on the intrinsic fertility of the soil. Improvements are the mechanism by which land is made ready for the satisfaction of human ends. They unlock the value of land: "For every site there is a use that creates highest land value. The full economic return on a tract of urban land can be secured only when it is improved in such a way that the site is utilized to maximum advantage." Weimer and Hoyt, *op.cit.*, 157 (urban in this case means developed land, which would include suburban development). Putting it more polemically, land is entirely without value until there is both a demand placed on it, whether economic or ecologic, and some means proposed to meet that demand.

    Appraisers are instructed to pay close attention to the way that improvements maximize what is perceived to be inherent value. For the purposes of appraisal, land is treated as if it had inherent qualities while improvements are said to "*contribute to value.*" Appraisal Institute (1992) *op.cit.*, 302. Moreover, appraisals are commissioned by interested parties. An appraiser's observation that a view has not been properly taken advantage of would, for a buyer, imply a discount. For the seller, though, it might signal additional expense. See Henderson, *op.cit.*, 147. An appraiser's interest in architectural design is therefore often limited to the ways in which it contributes to or maximizes the value of the land.

    All of this appears in marked contrast to an earlier view: that ephemeral panorama obtained with the achievement of height, such as through the effort of climbing.

120. Besides being enduring in a physical sense, the hearth also hearkened back to America's colonial origins and thereby localized a narrative of nationhood in a domestic object.

121. Landscape views resonate easily with the mythic passages in American history that found entities such as "the land" and "nature" at the fountainhead of national progress. Indeed, early in the nineteenth century, painters such as Thomas Cole had already cast the landscape in that role: more than a setting, the landscape seemed to induce the heroic epsiodes played out upon it. With objects like mountains, water, or sheer immutable distance framing historical events, the destiny of America was imbued with the timelessness of Nature. A landscape painter or photographer, however, could capture such a view in a single afternoon.

For a view to satisfy a similar representational role in architecture, the landscape itself had somehow to be stabilized and made constant. While a sense of the timeless had earlier colored the appreciation of landscape views seen from inside a building, only in the twentieth century did it come to be a strongly marked characteristic of them. Making the view permanent and drawing both aesthetic and financial value from its perpetuity became a defining trait of private landscape views at this time. Architecture contributed to this process by framing the landscape and registering interior space about a visual axis that extended outwards. As Cowley understood the role of architectural design: "View doesn't just happen. ... It must be wooed, won, and extracted from the rest of the world. It must be set up as a picture, framed in a window, and everlastingly enjoyed."[122] Only then could unassimilable nature be secured to the particular profile of site improvements. With the spread of long-term mortgage financing, acquisition of one's own parcel of eternity usually took between thirty and forty years. In fact, the acceptance of mortgage financing may well have had something to do with the desire to capture the economic value of a view. Mortgages explicitly located property value somewhere in the future; permanence meant that an asset would still be around after the payments for it were complete.[123]

Allusions to permanence were in part a response to the sense that the landscape was changing. Control of the land was the key to the creation of the landscape viewed. Conversely, flaws in the view could be seen as a sign of the limits to one's control, which still was not as threatening as an actual loss of control. In 1913 Charles Edward Hooper asked would-be homeowners to consider how impending changes in the unowned distance might come to destabilize their own views.

> One thing on which the possibilites of the place largely hinges is the outlook. We who have the time to take up with the problem at all will demand this. Now what is the character of your view? Is it unobstructable, i.e., can future developments destroy it? If

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122. Again, although the trope begins earlier, it becomes in the twentieth century an industry. "A slight change in the position of even one window may bring to the dwellers for all time a picture of hill and dale with forest and stream that shall be a perennial source of pleasure." In "The Outlook" in Isabel Bevier, *The House. Its Plan, Decoration and Care*. (Chicago: American School of Home Economics 1907) 51. Cowley's points are comparable but not his tone.

123. See in this regard Charles Abrams, *Revolution in Land* (New York: Harper & Brothers, 1939) 200.

> the view is locally obstructed--that is, on the land itself--one can remedy it,--but the outside obstruction is beyond correction.[124]

Though the defects of view fell into the same categories of ownership as earlier, the "character" of the view, as Hooper suggested, had less to do with its picturesque qualities than with its durability and resistance to alteration.[125] Screening the view, in the twentieth century, became less a matter of compositional balance than a means of confining change, at least visually.

This was also the case for the homes at Angeles Mesa. The single most recurrent qualification of the view in this series of advertisements concerned its longlastingness, its resistance to change, which the developers were at pains to affirm: "The value of a homesite is tremendously increased if it commands an indestructible landscape valley or mountain view."; the view "is permanent--indestructible"; it is a "**magnificent, unobstructed, imperishable view,**"; and "the glorious, perpetual privilege of every resident" who would buy there.[126] The color, complexity and

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124. Chas. Edw. Hooper, *Reclaiming the Old House* New York: Mc.Bride, Nast, 1913. p.16. Hooper was an architectural draughtsman and a designer. He served as an art editor for *McClure's Magazine* and wrote an earlier book on *The Country House* (1906).

125. Repton made indications of ownership and control explicit and central to his philosophy of landscape design. He translated the "three distances" of earlier Picturesque theory, which related to the pictorial creation of depth, into degrees of ownership. Foreground was that zone where the owner's property rights were absolute; distance, in contrast, meant that the owner had no power whatsoever to exercise his aesthetic will and would be visually subject to the will of others; the middleground was a zone where landscape decisions might be negotiated with abutters or like-minded neighbors. Indeed, part of the rationale for hiring a landscape gardener in the first place, and thus a cornerstone of the very profession, was that the gardener could hide or screen evidence of diminishing rights of property. He thought too much emphasis on the unowned distance was a mistake and offered an aesthetic rationale for doing otherwise. See Humphrey Repton, *an Enquiry into the Changes of Taste in Landscape Gardening* [1806] (Gregg International, England, 1969) 129. As Stephen Daniels puts it: "Picturesqueness and property are here inseparable and it is not incidental that Repton uses a metaphor of criminal theft to describe how the enjoyment of scenery is diminished." In Stephen Daniels, "Humphrey Repton and the Morality of Landscape," in Gold and Burgess, eds., *Valued Environments* (London: Allen and Unwin, 1982) 124-44.

126. *Los Angeles Sunday Times*, *op.cit.*, (each advertisement for Angeles Mesa).
Again, this is in contrast to the Romantic view that was valued oftentimes for its evanescence, which included references to the passage of time. Further, views on Picturesque estates were often intended to punctuate movement. The emphasis in both cases is on temporality or perhaps, as in the paintings of Caspar David Friedrich, the creation of a frozen moment of contemplation crowning a lengthy journey; there is a clear contrast between the indifference and duration, and the astonishment registered by the viewer.

chiarioscuro of the view added less to a home's value than did its perseverance through time. Intimations of immortality, which had tinted landscape views for centuries, at Angeles Mesa underwrote the security of investments in realty.

In tandem with the association with permanence, the bad view became the sign of instability, change, and environmental decay. Since no one would willingly choose an obstructed view, let alone a blighted one, visual flaws prompted a sense of insecurity and loss of will in the face of such change. With the view becoming more and more a part of interior experience, changes on neighboring properties threatened one's autonomy and authority in the very heart of the private sphere. Revealing that safety and certainty were the assets at risk, a soured view made the home a frail sort of refuge. Describing the "suburban nightmare" that troubled the homebuyer's financial unconscious, Frederick Allen questioned,

> who can build for permanence when the face of the land is changing so rapidly? . . . In ten years, you may have a view of a row of identical backyards, and a swarm of neighbors not even remotely of your own chooosing. All sense of security for the future is lost. With such a gamble before you, is it any wonder that you are driven to think in terms of profitable investment?[127]

In Allen's opinion, the bad view almost causes the mercenary thinking that degrades otherwise decent domestic concerns. The initial move to the suburbs was driven in his scenario by simple pastoral motives while subsequent efforts to maintain the suburb's salient environmental and visual qualities, which presumably attracted the suburbanite in the first place, were essentially defensive. Development that continued after one had moved in was what propelled the projection of financial concerns on to the landscape. The view of encroaching neighbors, at least, made the economic motivations behind dwelling decisions more prominent than when the view comprised nothing more than immobile plant life.[128]

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127. Frederick Allen, "Suburban Nightmare" *The Independent* v.114 (1925) 670-72, cited in Anselm Strauss, *The American City. A Sourcebook of Urban Imagery* (Chicago: Aldine Publishing, 1968) 419.

128. Cowley made a similar point when he claimed that the view, that is, the natural view, triggers inhabitation and repays long-term residency. At the same time, *House Beautiful* wrote that to be perceived as permanent, the view must be free of neighbors altogether since only nature is truly unchanging. *House Beautiful* (June 1950) p.94.

Whether or not Allen's causality is reliable, the sense of stability was an important aspect of appraising a home. Residential zoning, which in the 1930's was quite explicit regarding racial and ethnic exclusions, esteemed zoning for its assurances of neighborhood stability that, in turn, secured what was otherwise a speculative investment in real estate.[129] Though a view of an untroubled landscape can hardly be considered a cause of environmental stability, it could serve as evidence of it.

In design circles, it was the wall of glass that gathered the enduring view, secured it, and integrated it with indoor life. "Consistent with the modern demand for light and openness, the range of 'picture' windows on a curve converts an extensive view into a permanent panorama for the occupants of the house," wrote Eberlein and Hubbard in 1937.[130] The view was permanent in this sense because it was continually present and always in sight. Similarly, views were promoted for all rooms of the house, and, with outdoor lighting, all times of the day. The view was more and more a fixture of the visual experience of the indoors. In this way, it established a continuity with outdoor experiences and, at the same time could surpass the outdoors in terms of visual delight. It could be enjoyed even in winter time: "Properly oriented, large glass areas in your wall to enjoy your own trees and flowers while inside, or a favorite mountain or ocean view the year round."[131] From one room to the next and from one season to another, while clothing and daily habits would change with the seasons, the view was a constant enjoyment and a beacon of stability. Moreover, the attention given to screening out visual distractions, like neighbors, meant that the experience of viewing the landscape would itself be more continuous. "The common sense that marks the American Style provides that a glass wall have a permanent view--one that's

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129. By stabilizing residential areas, zoning makes them more valuable. See, for example, McMichaels, *op.cit.*, 325.

130. Harold Donaldson Eberlein and Cortlandt van Dyke Hubbard, *Glass in Modern Construction. Its Place in Architectural Design and Decoration* (New York: Scribner's, 1937) text for plate 6. The picture window was the final stage in the architectural commodificaiton of landscape: whether or not you had a good view you could always buy a picture window. This and other efforts on the part of architects to stabilize and bring the landscape within the domestic realm are addressed in more detail in the following chapters.

131. Samuel Paul, *The Complete Book of Home Modernizing* (New York: H.S. Stuttman, 1953) 29.

not at the mercy of neighbors or passersby," wrote *House Beautiful* in 1950.[132] Besides extending the opportunities for viewing throughout the day, screening assured that no blemish would disturb the therapeutic actions of looking at the landscape.

With enjoyment of a view more central to the satisfactions of domestic life, stabilization of the visual environment increasingly became an architectural task. Nelson and Wright advised homeowners to consult architects rather than lawyers about assuring not only the aesthetics of the surroundings but protecting their investment as well. "If you're a home-owner you'll want assurance that these advantages are permanent, that the value of your property won't be decreased by encroaching blight."[133] Assurance looked like an unpopulated and unchanging landscape. Permanence had, after all, long been essential, if implicit, to the functioning of home and ideas of domesticity. Though sometimes in tension with notions of mobility, a pivotal aspect of the meaning of the single-family house "revolved around the sense of permanence and security."[134] Rather than ground the sense of stability in the traditions that bore on the hearthstone, Nelson and Wright thought it lay in the union of inside and outside. A confident fusion of house and outside environment, as Neutra put it, "is the only true guarantee of durable value and contentment. The site, well treated, is a lasting source of happiness."[135] Looking over an unblighted view was like reading a warranty.

In many discussions then, something like an axis of longevity seemed to reach from the timeless landscape through the plane of the glass wall and into the interior of the house, lending this sense of permanence an almost three-dimensional presence in the home. In some cases, the alleged

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132. *House Beautiful* (June 1950) 94.

133. Nelson and Wright, *op.cit.*, 8.

134. Robert Rakoff, "Ideology in Everyday Life: The Meaning of the House," *Politics and Society* v.7 (1977) 94.

135. Neutra, *Mystery and Realities of the Site*, (Scarsdale: Morgan and Morgan, 1951) 60. Also in this regard, consider Hitchcock's claim that modern materials are not permanent. Suggestions of permanence could emerge in architecture only through the use of traditional materials like masonry. Failing that, they should be sought elsewhere, outside architecture. In *Romanticism and Reintegration* [1929] (New York: Da Capo) 213-14.

antiquity of the view helped stabilize the otherwise dizzying modernity of the house. In 1929, Neutra's Lovell House, for example, was noted for its technological innovations. Looking back on that work in 1951, Neutra emphasized instead a different aspect.

> Through continuity of fenestration, linkage with the landscape, we should draw again on what the vitally dynamic natural scene had been for a hundred thousand years, and make it once more a human habitat. It was indeed a splendid vista and landscape that permeated inward when the continuous but dividable drapes were slid aside.[136] [Fig. 2.9]

What was radically new was the architecture; what was stoically eternal was the landscape.[137] What was the product of both, resolving the progressive with the ancient, was the view, which Netura rendered here in distinctly theatrical terms, with a curtain opening on to the longest-running performance imaginable. The surrounding landscape was invited to imbue the house, itself newly unveiled, with its timeless values. Elsewhere, Neutra explained that although "literal permanence" was impossible in the modern world, he believed Americans still sought their "mental comfort in permanence" or the semblance of it. Whether or not the view was itself permanent--from the Lovell House most of the view encompassed the rapidly developing city of Los Angeles--the act of viewing had been written in the depths of humankind's evolution.[138] The architect had to be sure to provide something for searching eyes to rest upon.

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136. Neutra, *Life and Shape* (New York: Appleton-Crofts, 1962) 223. Elsewhere Neutra wrote that views should satisfy an innate need for "self-identification" with "a scene which will have the value of reminiscence." In Richard Neutra, "The World of Tomorrow," lecture delivered in October 1963. UCLA: Richard Neutra Collection, box 275, Ideas file.

137. The juxtaposition of modern technology and nature was a common encounter; somehow the modernity of one released the durability of the other. This is discussed in more detail in the chapter "A New View of Nature."

138. Neutra (1954), *op.cit.*, chapter 8.

A Consumerist Sublime

> The best objects that you can see are those in your own realm; but your own realm becomes larger and means more for the sight of something beyond.
>
> Liberty Hyde Bailey, 1905[139]

From the start, real estate appraisers had set out to commodify the intangibles indistinctly but undeniably attached to home ownership; they were professionaly mandated to figure the cost of a view. Joseph P. Day began a 1914 article on the subject in just this way:

> If more people could be induced to look upon houses, lots and acreage as ordinary commodities . . . instead of feeling that the minute the land element enters some mysterious and subtle condition, quite apart from the laws of supply and demand and comparative values, governs their transactions, it would not be so hard to answer the question, 'Where shall I buy real estate?'

Bringing vague attributions of value to light was for the real estate industry a kind of demystification. What Day realized was that land was by definition unique and therefore resistant to comparison. This was most apparent with large or extraordinary property which "lies outside of ordinary market conditions," and where "sentiment or personal desire upsets all laws of supply and demand." But, the irreconcilable characteristics of land were, he believed, reconciled by the fact that buyers of property were comparable. However infinitely varied the qualities of the land, human interests were few, commonly held, and as a result, comparable. Fortunately for the progress of the industry, most buyers fell "within the average of taste in home matters." Measuring average tastes interests should be central to the broker's activities, he advised.[140]

Fairness was a primary motivation for the attempt to integrate subjective values with the conventions of commodity exchange. Appraisers realized quite early that economic rationality obliged sellers of real estate to seek an inflated price while buyers should search for a bargain. Finding a price judged to be fair by both parties to a sale meant making explicit all the factors that

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139. *The Outlook to Nature* (New York: Macmillan, 1905) 57. Bailey was primarily a horticulturalist and was a proponent of the back-to-nature movement.

140. "The Buying of Real Estate. Where to Buy," *Real Estate Magazine* (December 1912) 22.

contributed to value, including both subjective and future ones. Once a subjective value was recognized, estimates of value had to take it into account to whatever extent possible. Fair value in a money economy, in other words, meant that everything was assessed and paid for, that nothing was being stolen and nothing given away. Day stressed that agents should therefore become familiar with buyer motivations, as well as with the market for local properties.

In the name of fairness then, appraisers forged ahead establishing monetary equivalents for the psychic value of environmental beauty. The advantage that a sense of permanence held for this activity was that a stable and predictable visual field would be more amenable to having its value encoded in price and, consequently, more readily exchanged. This was in part the task of covenants and deed restrictions that sought to regulate the physical environment of residential areas since the nineteenth century.[141] Whether the initial impulse was financial or xenophobic, such regulations also affected the visual environment, which included the content and durability of the view from within the home. After a landmark U.S. Supreme Court decision in 1954, visual aesthetics became as well a legally recognized basis for adjudication. Subsequent cases that tested this ruling gradually brought questions regarding the visual environment in conformance with contemporary business practices.

Most often, these cases focused on views onto or from public lands and in urban areas where conflicts of visual interest are usually more complex. A spate of studies appeared in the 1960's that attempted to balance the needs of development with not only existing uses but existing views. *Beauty for America* was the massive study produced by the Johnson administration in 1965 that proposed a national armature for the preservation of scenery.[142] The following year, the American Society of Planning Officials sponsored the development of "View Protection Regulations" for

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141. Seymour Toll, *The Zoned American* (New York: Grossman, 1969) and Evan McKenzie, *Privatopia. Homeowner Associations and the Rise of Residential Private Government* (New Haven: Yale University Press, 1994).

142. *Beauty for America. Proceedings of the White House Conference on Natural Beauty* (Washington, D.C.: U.S. Government Printing Office, 1965).

urban areas, drawing on the efforts of a number of municipalities.[143] Scenic easements, that is, the right to view a scene in perpetuity, were fast becoming a tool of land management. In 1960, "The Appraisal Docket," *The Appraisal Journal*'s legal forum, noted the courts' recognition of "damage to esthetic values" in determininations of injury from governmental takings.[144] By 1967, appraiser Charles Seymour lamented that "More and More of my Reports are Valueless." The reason, he explained, was that valuations of property were rapidly changing as real property was construed in increasingly new and abstract ways. He noted in particular the new attention being given to landscape views and predicted that: "Much more will be made of scenic easements in the near future. They may be our most challenging new appraisal activity."[145] Since then dozens of studies, at least, have been conducted to determine the value of views and to propose means of protecting them.[146]

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143. Margot Parke, "View Protection Regulations," *ASPO Planning Advisory Service* Report No. 213 (Chicago: American Society of Planning Officials, August 1966).

144. *Appraisal Journal* (January 1960). Scenic easements appeared much earlier than this. In a number of writings on urban design, Charles Mulford Robinson mentioned that they were already well-established in Germany and should be emulated in the United States. See his *City Planning* (New York: G.P. Putnam's Sons, 1916). The distinction drawn here is the need for economic compensation, established in the United States with the due process clause in the third amendment to the U.S. Constitution.

145. Charles Seymour, *Appraisal Journal* XXXV:4 (October 1967) 462. This shift was generalized in 1979 by Fred Bosselman and David Callies as "The Quiet Revolution in Land Use Controls." The land-use revolution was a movement away from the "commodity" value of land and toward a conception of land as a "resource," which is the favored approach of conservationists. Scenic easements are a means of recognizing both attitudes. In Richard Andrews, ed. *Land in America. Commodity or Natural Resource?* (Lexington, MA: Heath, 1979) 41-54.

146. A beginning bibliography on the subject would include: Clark, Coleman, and Rupeiks, Inc. "View Protection Features of Zoning in Other Cities," (Seattle, April 21 1964) and Clark, Coleman, and Rupeiks, Inc., "The View Criteria," (n.d.); Transportation Agency, Department of Public Works, "The Scenic Route: A guide for the designation of an official scenic highway," (Sacramento: State of California, n.d.); Edward Williams, "Overview of Public Interests, Concepts and Pressure Groups," *Public Landscape Objectives Private Development and Legislation*, ed. Tito Patri (Berkeley, CA: University of California, Berkeley, 1969) pp. 1A1-1A9 (Williams was a partner with Garrett Eckbo in the landscape design firm, Eckbo, Dean, Austin and Williams, of San Francisco); Louise M. Arthur, Terry C. Daniel, and Ron S. Boster, "Scenic Assessment: an overview," *Landscape Planning* v. 4, no. 2 (1977) pp. 109-29; Charles B. Yuill and Spencer Joyner, "Assessing the Visual Resource and Visual Development Suitability Values in Metropolitanizing Landscapes," *Our National Landscape. Proceedings of the National Conference on Applied Technologyfor Analysis and Management of the Visual Resource.* General Technical Report PSW-35, (Berkeley: Pacific Southwest Forest and Range Experiment Station, Forest Service, United States Department of Agriculture, 1979); Christopher Duerksen, "Beyond Ecology and Economics," *Urban Land*, (January 1986) pp. 34-35; Terry Jill Lassar, "View Protection--A Capitol Idea," *Urban Land* (June 1987)

By the 1990's, "vista management" has become a defined area of land policy, employing entities such as "visual resources," "view corridors" and "scenic easements." Views are an everyday object in what one legal historian has called "the legal landscape." While scenic easements are typically granted for public use, they are often purchased from private property owners. Consequently, their economic value needs to be established. Appraisers have correspondingly developed ever more sophisticated methods for measuring the value of the view. Even remaining strictly within the area of single-family houses, views have been measured with increasing precision. A 1994 study in *Appraisal Journal*, for example, used a multiple regression analyis of market statistics "to estimate the value of a view in a residential housing market." "How much is a 'good view' worth in a single-family housing market?" the authors asked. Like a wide driveway or a second bathroom, the view was an amenity, in fact, a "view amenity." Stumbling over the same evaluations of quality that have troubled art historians for centuries, the authors straightforwardly defined the quality "good" as "something that a typical buyer is likely to find appealing."[147] Moreover, different real estate markets accounted for views to different degrees.

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pp. 36-37; 1988 Presidential Design Awards in Urban Design and Planning honored "Saving the Best Views," a generalizable "Visual Prioritization Process" developed by the U.S. Department of Agriculture, Forest Service, Coronado National Forest, Tucson; Arthur Magill and Charles Schwarz, "Searching for the Value of a View," Research Paper PSW-193, (Berkeley, CA: Pacific Southwest Forest and Range Experiment Station, Forest Service, United States Department of Agriculture, March 1989); The best overall review of the legal recognition of view is Richard Smardon's *The Legal Landscape* and his earlier "Community Control vs. the Elitist Landscape," in Paul Groth, ed. *Vision Culture Landscape*. A thoughtful and early attempt to historicize this development is Christopher Tunnard's *A World with a View. An inquiry into he nature of scenic values* (New Haven: Yale University Press, 1978). Such efforts may be divided between those that seek to describe landscape preferences and those that attempt to assess landscape directly in economic terms. The division is provisional at best.

147. Mauricio Rodriguez and C. F. Sirmans, "Quantifying the Value of a View in Single-Family Housing Markets" *Appraisal Journal* LXII:4 (October 1994). The authors ask the question: "How much is a 'good view' worth in a single-family housing market?" The study does not consider specific views but only "a good view in general," primarily for lack of landscape assessment data comparable with market data. Views in Norther Virginia add about 8% to the price of a home; in San Diego they add only about 4%.

At the same time, making the most of the view in architecture has declined, according to real estate sources, with respect to other aspects: "There is a trend toward reducing the size of windows and placing them higher to conserve energy and increase security. . . . The appraiser should describe these energy-saving features in a building description." In Appraisal Institute (1992), *op.cit.* 229.

Attitudes toward views in real estate practice were located explicitly within consumer cycles and the money economy. Though discussions of views in architectural circles shared to some extent a vocabulary of commercialization, views there were mostly for free. However much architects insisted on the increment of duration that views added to the home, they usually also insisted that the view was still a gift. Overlooking the costs of mechanical systems that mitigated heat loss through glass walls, the glass walls themselves, the unencumbered sites suited for unobstructed views, the transportation necessary to get to such sites and to get goods and groceries back to them, not to mention the architectural fees required to assure good design, the view was a "free blessing of nature." Without having invested much at all, the argument went, the homeowner received "dividends from nature," that most solvent of enterprises. Like some wild fruit tree, good orientation yielded on a daily basis "free" advantages. Part of the appeal was certainly that the benefits had cost nothing. Pleasure might be diminished if homeowners were forced to see the price tag on their panorama.[148]

This placed the architectural understanding of views both within consumer culture and outside of it. Together, these two seemingly irreconcilable aspects enabled the architectural discourse of the view to function as a consumerist sublime. Views could appear sublime because they involved, at their best, an aesthetic response to inordinate stretches of time and an unwarranted extent of land; they added a scale to everyday life normally outside everyday experience. Views could be considered consumerist not only because they displayed a commodity-like behavior, but also because they were packaged and marketed with all the techniques of aspirational advertising. Moreover, thought to be either cheap or free, views were capable of resolving a specifically consumerist desire: getting the most for your money. Even when they were lacking, views could be created by designers. "Artificial view" was limited only by the imagination of either designer or dweller. An experience of landscape could be both fabricated and privatized. This is not to claim that private landscape views were themselves sublime, in any sense of the term. Rather, they occupied a similar position at the pinnacle of an aesthetic hierarchy; they had, in an appropriate parlance, "sublime action" in the everyday environment.

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148. "Pitfalls in Floor Plans," *Architectural Forum* (October 1951) 201.

Since Burke, a sublime could be triggered by greatness in scale, which included temporal scale or an intuition of the everlasting. Such qualities exceeded the mind's ability to comprehend them and triggered a sense of awe or wonder, as well as a sense of the entirely incommensurate realms of man and nature. In these earlier discussions of views, assimilating, let alone puchasing the sublime was not a question. In the twentieth century discussions reviewed here, a sense of the eternal was a precursor to some excellent capital gains. At the very least, distant vistas could relieve some of the drudgery of of everyday chores. [Figs. 2.10-2.15]

Speaking directly to architects in a trade journal, window manufacturer Ponderosa Pine drew from this well-understood formula: "The view need not wreck the budget"; "Less Output for Outlook."; "you can provide more light, more ventilation, more 'view'--at moderate cost ...you'll be giving the owner *superior* value." The imperative--"Bring the outdoors in--but watch the budget!"--had become a common programmatic requirement by mid-century, an "exacting demand made by hundreds of prospective home owners today."[149] A view of nature was bound by client desire into contemporary economic cycles of home purchase and renovation at the same time it offered respite from them.

From time to time someone noticed something dismal about capturing and commanding a dramatic view every day of the week. Rudofsky, for one, felt that permanence in anything came to be taken for granted. "It is, of course, a well-established fact that one's faculties of casual observation for a given object diminish rather than increase with time."[150] One gradually grew complacent with granduer at the doorstep. More specifically, the perpetual panorama was not really that restful. "Generally, one becomes tired of the unobstructed view," sighed Hooper in 1913.[151] Extent and scope could be exhausting on a daily basis; seemingly greater than oneself,

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149. Advertisements in the late 1940's appearing in *Architectural Forum*.

150. Rudofsky, *op.cit.*, 197.

151. Hooper, *op.cit.*, 131.

the permanent view required "heroic fortitude" to live up to.[152] George Howe noticed also that views were often assumed to be made of "mere distance," which eventually became simply disorienting. He framed, contained, and terminated the views in his design for a hillside house. The resulting vistas do not "give the feeling of being lost in space, as does an extended view." To strengthen his argument, he cited Edgar Allan Poe's essay on landscape design, "The Domain of Arnheim." It remains to date the most sharply drawn précis of view-induced dreariness:

> The taste of all architects I have ever known leads them, for the sake of 'prospect,' to put up buildings on hill-tops. The error is obvious. Grandeur in any of its moods fatigues, depresses. For the occasional scene nothing can be better, for the constant view nothing worse. And, in the constant view, the most objectionable phase of grandeur is that of extent, the worst phase of extent, that of distance.[153]

An occasional great view was like a challenge; a permanent view, however, was a reproach: day after day, the horizon became witness to one's littleness.

As withering as Poe's critique was, architects were prepared with an answer. The view was indeed forever but it was also forever changing. As a landscape, it was as immutable as land itself; as a sight, it was transient as light. Though remaining focused on the same features, the view changed with the angle of the sun, a bluster of wind, with the weather, with the seasons. More than anything else, views were compared with moving pictures. A view could be a "miraculous painting," a painted vista or a "marching mural," an "ever changing vista," a "living picture," "a mural that changes with the seasons," "a natural, true-to-life picture," and a scene "animated by changes in the weather and the seasons."[154] The riddle of change in permanence, however, sounded more like consumer philosophy than Heraclitus. As Rudofsky himself noticed, consumers called for visual refreshment on a regular basis. This included pictures, which could be

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152. Nicholas, "Framed Views," *op.cit.*, 25. Elizabeth Mock likened the permanently grand view to a kind of disease and thought some enclosure could remedy one: "Architects have rediscovered the walled courtyard. They use it as an antidote to a sweeping view." In *If You Want to Build a House* (New York: MOMA, 1946) 81.

153. From "The Domain of Arnheim" and cited in *Architectural Record* (August 1920). (See cover illustration).

154. Discussed and cited in following chapters.

purchased in bulk and rotated as necessary throughout a house.[155] Views were a better sort of picture: forever, free, having greater depth than any painting could, and requiring no storage space. They were a ready and reliable source of visual change. It was part of their "magic," as Cowley had put it.

At the end of the nineteenth century, George Santayana explicitly addressed what the effect of desire was on the experience of the sublime. It destroyed it. He defined an "Epicurean sublime, which consists in liberation by equipoise." That is, the desiring mind is silenced by perceptions of great extent, which creates in turn a place of unaccustomed mental calm.

> We may think we covet every sort of pleasure, and lean to every kind of vigorous, impulsive life. But let an infinite panorama be suddenly unfolded; the will is instantly paralyzed, and the heart choked. It is impossible to desire everything at once, and when all is offered and approved, it is impossible to choose everything. In this suspense, the mind soars into a kind of heaven, benevolent but unmoved.[156]

The sublime, in other words, was a domain beyond desire and the urge to acquire.

Santayana acknowledged that the sublime was a place infrequently visited. Even if circumstances were especially conducive, the mind might remain too preoccupied with the details and desires of daily living. Sadly, an opportunity for the sublime was too often swapped for simple ownership of things. A sublime experience at the vertex of a view was lost to those engrossed with desire for possession.

> We are commonly too much engrossed in objects and too little centred in ourselves and our inalienable will, to see the sublimity of a pleasing prospect. We are then enticed and flattered, and won over to a commerce with these external goods, and the consummation of our happiness would lie in the perfect comprehension and enjoyment of their nature. This is the office of art and love.[157]

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155. See, for examples, Nelson and Wright, *op.cit.* 19-20, 208; Pittsburgh Plate Glass, "A Preview of Tomorrow's 'House for Cheerful Living'" (May-June 1945) n.p.; Charles Moore, Gerald Allen, and Donlyn Lyndon, *The Place of Houses* (New York: Holt, Rinehart, 1974) 104.

156. *The Sense of Beauty. Being the Outlines of Aesthetic Theory* (New York: Scribner's, 1896) 241.

157. *Ibid.*

Fulfillment of desire graced everyday experiences while sublimity resided far away, beyond even art or love. Attainment and acquisition were proper therefore for things closer to home than permanence and vastness. But, however giddy the claims, some of the rhetoric of view-seeking in domestic architecture, as with the hearth, was directly aimed at binding the everyday to a different order both of temporal magnitude and terrestial breadth. A paradox of limitlessness possessed lay behind the promotion of private landscape views.

The process of coming to see views, including and especially those over other properties, as permanent and as contributing to the value and longevity of improvements to the site was a major step in the commodification of the everyday landscape. It may in fact define it. It was a step taken together by the real estate and architectural professions. Homeowners lent their blessings: simply by enlarging a window or judiciously planting a shrub, they could improve the value of their property and stood to make a profit. And once a view could turn a profit, it could, logically speaking, be taxed.

Chapter 3: "The View it Frames": A History of the Picture Window

A Picture Window is only as good as the view it frames.
Philip Johnson, 1996[1]

How did we exist before the creation of the all-seeing picture window?
Edwin Bateman Morris, 1953[2]

There is no more potent image in the United States of middle-class suburban life than the picture window. [Fig. 3.1] Though variously defined before and since, the "picture window" was intensively promoted by glass manufacturer Libbey-Owens-Ford beginning in 1934. Within a very short time, it spread deeply into the American consciousness, becoming the single most ubiquitous feature of the single-family house. Among changing architectural fashions and factions the picture window remained a steady presence. As suburban landscapes stretched across the country in the years following World War II, picture windows looked over, through and across them. The architectural element soon became a symbol for an entire form of settlement and a whole new way of life. For many it signalled a modest domestic pastoralism: a humble home, a welcoming landscape, and a cozy fellowship between them. It became a fitting subject for poems, plays, novels, college theses, and films, not to mention its role in house design. It simultaneously signified an intimate scale of everyday goings-on and a national landscape: quiet musings at the edge of the family living room, a pair of eyes looking over a puddle of green lawn, in house after house, from one block to the next, from town to town, from coast to coast. In this way, the picture window represented a common environment, a community of shared values, and a kind of democracy attained.

Mass appropriation of glass walls signalled the triumph of some of modernism's highest formal ideals: the expression of new materials and methods of construction and the creation of a new kind of space. A new openness both within the house and to the surrounding landscape likewise indicated more candid relations both within families and between them. Just as surely, this

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1. Philip Johnson, for Trump International Hotel and Tower, New York, *New York Times Magazine*, (March 17, 1996) 55, continues: "this building has views of New York that have never been seen before."

2. "How to View the Out-of-Doors," *Journal of the A.I.A.*, (February 1953) 63-4.

triumph tolled the degradation of the same ideals. As picture windows spread across an entire continent they were planned carelessly, installed without concern for the related principles of modern design with which they were generally associated. Consumers, it seems, were eagerly buying parts of the modernist program, but not the entire package. Wildly popular, the picture window became evidence of processes of vulgarization, the subordination of high ideals to crass consumerism.[3] As quickly as it became an icon, the picture window had become, before the 1940's were even over, an object of scorn. What might be called the principle of the picture window was not in doubt. It was rather that popular insistence on its use in unpromising circumstances was "strictly a vulgarity. . . . There is no objection to the basic idea underlying a picture window," wrote the architect Michael Hare in 1956. "What is objectionable is the debasement of the idea."[4] The picture window had become just another object for mass consumption. Cheapened not only in cost but character as well, the picture window was the glass wall's utopian manifesto of transparency writ small. [Figs. 3.2-3.3]

If the picture window's success turned the key to its failure, its ubiquity was what linked the architectural critique to the social one. Picture windows stood for bad taste in general and hinted powerfully at a fundamental psychological need for validation--what David Riesman had characterized as being typical of the "other-directed personality"--common to all contemporary forms of excess. As James Marston Fitch reflected in 1961:

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3. Robert Woods Kennedy claimed that most builders and many architects were unable to undestand the principles that underlay modernism and, as a result, were able to reproduce it in form only: "He imitates its outward forms, or uses some of its 'features' indiscriminately. Today, for example, the picture window is everywhere," though in entirely inappropriate situations. Modernization of older homes was considered complete simply by "adding one picture window, and painting what is left dead white."; Robert Woods Kennedy. *The House and the Art of its Design* (New York: Reinhold, 1953) 384, 449.

   Rosalind Williams suggests that consumption in general is kaleidoscopic; consumersmake their selections with an eye toward personal expression rather than programmatic coherency. In "The Dream World of Mass Consumption," *Dream Worlds* (Berkeley: University of California Press, 1982) 58-106.

4. From a letter to William Hughes, Director of Foreign Buildings Operations, U.S. Department of State, dated 17 September 1956. In this case what was objectionable was that an amabassador's house, a representational residence, should be inflected by the most banal aspect of American architecture: a "symbol of suburbia." Cited in Jane Loeffler, "Architecture of Diplomacy: The United States Builds Embassies Abroad, 1926-1964," Ph.D. dissertation, George Washington University, Washington, D.C., 1996. My thanks to Jane for showing me this letter.

> After all, such status symbols as the picture window and the tail-finned motor car are but the manifestations of a profound inner uncertainty, of a corrosive lack of self-identification. In this light, it is obvious that the disappearance from the stage of history of such excrescences will be more a matter of social than architectural design.[5]

Like the chromium "gorp" that dripped from postwar automobile bodies, the picture window was a symbol in search of status. And just like other kinds of architectural ornament that affected status for their owners, "current use of the 'picture window' . . . often verges on crime."[6] The crime, as in Loos's polemic half a century earlier, was underpinned by a Veblenian critique: ornament consumed energy and thus used society's resources without returning anything to the general economy. Since it looked out only on to others like it, picture windows couldn't even refresh a tired worker for the labor of the following day.

The picture window proposed a relation with others and with nature that could not be satisfied in the spot where it was placed. Mass distribution of picture windows had placed windows where there were no views and created views where there had once been privacies. Picture windows looking across manicured lawns to other picture windows became the architectural support for a suburban society based on "the visibility principle."[7] The picture window had both facilitated and become enmeshed in processes of accumulation and rituals of display. The picture in the picture window was, as many critics charged, nothing more than a reflection of the neighbor's view. As such, the picture window came to signify a kind of complacency and a collective illusion. It overlooked and looked over some of the meanest aspects of American life: the hypocrisy of individualism amid the fear of nonconformity, an intolerance of difference and a racism that was

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5. James Marston Fitch, *Architecture and the Esthetics of Plenty* (New York: Columbia University Press, 1961) 187.

6. *Ibid.*, 185.

7. "To the professional and the laymen alike, the word 'suburban' conjures a picture of open space. ... Suburbia is the land of the home owner and the house on the 60 x 100 plot. The suburbs *are* open and spacious, in comparison to cities, and because of that life in the suburb is more visible. *The visibility principle* is a characteristic suburban feature: suburbanites can observe each other's behavior and general life style far more easily than the central city dweller.. . . there is no escaping the omnipresent eye of the community." William Dobriner, *Class in Suburbia* (Englewood Cliffs, NJ: Prentice-Hall, 1963) 9.

invisible only from the picture window, an acquisitiveness and attachment to material goods that often replaced spiritual values wholesale, and only the vaguest sense, at best, that there was anything wrong in the first place with this seemingly unassuming and gentle oasis.

Being both common and evocative, the picture window could, and did stand for all that was wrong with America. Daniel Boorstin's polemical 1961 book, *The Image. A Guide to Pseudo-Events in America*, was meant to describe "how we hide reality from ourselves." Boorstin ends the book with a picture window, which he takes as a remarkably dense scrim of illusion: self-deception and failed visions, leisure turned to boredom, technology gone out-of-control, living environments ruined by their owners' attempts to improve them and degraded everlastingly by nothing more heroic than bad taste, a debasement of national consciousness that would be tragic if it weren't so pitifully banal. Boorstin began his review of the decade and a half after World War II: "We are deceived and obstructed by the very machines we make to enlarge our vision ..."

> In an earlier age, an architectural symbol of small-town, growing America was the friendly front porch. In our day, the architectural symbol of domestic life is the picture window. The picture window is as much to look into as to look out of. It is where we display ourselves to ourselves. When from the outside you look in, what you usually see is not people going about their business, but a large, ornate, tasteless electric lamp, which during the day prevents the natural sunlight from coming in. When we look out our own picture window, if we do not see our neighbor's garbage pail, we are apt to see our neighbor himself. But he too is apt to be doing nothing more than looking at us through *his* picture window. . . . How escape? How avoid a life of looking in and out of picture windows?"[8]

In this way, the picture window represented also a disillusion: an ironic symbol of vision set free only to collide with its confinement in the web of social expectations that ringed the single-family house. The picture window made the national ideology of self-reliance appear thin and brittle. It may have aspired to overlook nature and provide distance from bureaucracy and city centers but doing so required an even deeper reliance on urban infrastructure, loan guarantees, banking, and the growth of government. It may have started with a hope for an autonomy guaranteed by a vision of private property, but, as John Keats pointed out in 1956, there was a continent-wide

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8. In *The Image. A Guide to Pseudo-Events in America* [1961] (New York: Atheneum, 1982) 259.

"crack in the picture window."[9] That a single building element could attract such vitriol indicates its position in the modern American imagination. Cracks and all, the picture window represents a broken promise that many Americans have yet to forgive.

The Picture Window Idea

The idea that a window frames a view of the outside and by doing so composes more or less random elements into a picture or scene is no doubt an old one. Windows laden with symbolic content have been represented at least since early Egypt. Imaginary landscapes in particular have been pictured in imaginary windows since Pompeii. In the nineteenth century, views through windows became a popular motif in painting and poetry as well as in references to architecture. "Picture" and "window" were terms frequently paired in Romantic sentiment, together displaying a richness of ambiguity that could simultaneously signify clarity of vision and an immediate connection between self and world or, just as readily, a confusion of objects, insurmountable mediation between self and world, and an alienation that was all but inevitable.[10]

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9. John Keats, *The Crack in the Picture Window* (Boston: Houghton Mifflin, 1956). For Keats the picture window represented as well excessive borrowing and illusory ownership, developer avarice, corporate bureaucracy, a nagging wife and an ineffectual husband, ennui and delusion, and consumer culture in general. His protagonists are John and Mary Drone.

   Directed toward a popular audience, *McCall's Book of Modern Houses* did not even include the picture window in its table of window types. It did mention the picture window however: ". . . many errors are made in locatin g windows. Witness that horror known as the picture window, which has turned hundreds of houses over the country into fish bowls and store fronts. Instead of framing a view *for* you they too often frame a view *of* you because they are unwisely located." Mary Davis Gillies, (New York: Simon & Schuster, 1951) 179 (Emphasis in original).

10. Carla Gottlieb, *The Window in Art: From the window of God to the vanity of man: a survey of window symbolism in western painting* (New York: Abaris, 1981). See also Rosalind Krauss, "Grids," in *The Originality of the Avant-Garde and Other Modernist Myths* (Cambridge, MA: MIT Press, 1985) 8-22. McGrath and Frost cited Atkinson and Bagenal's fortuitous phrase, "contemplative use of the window," as being primarily a recurrent motif, "adequately present" in the Renaissance but more prominent, they implied, in a Romantic age: "To enjoy a prospect from a window two things are necessary; first the leisurely appreciation of nature for its own sake and quite apart from its elemental associations, and second, either an unobstructed opening or clear, colourless glazing." In *Glass in Architecture and Decoration* (1937) 103-04. Richard Atkinson and Hope Bagenal's text, *Theory and Elements of Architecture*, is from 1926.

In architectural circles more specifically, the conceit of framing pictures through windows usually referred to a conscious exercise of aesthetic taste and involved some detailed discussion of the landscape elements to be composed. It also required some education or a learned appreciation for principles of picturesque taste. And it almost certainly required an extent of land amenable to aesthetic improvement. By the end of the nineteenth century, however, something new had been added to the activity of making pictures through windows. It was being packaged in an architectural element and mass-produced. "Landscape window," "view window," and "picture window" all referred to a large sheet of glass that was expected to frame a landscape. Typically though, they were set into houses on small lots which adjoined identical houses. Large windows framing landscape scenes had become an architectural element designed less in response to a good view than in anticipation of one. The terms described not only a common semantic domain; as prominent features in the private home they became an aspect of everyday experience.

The idea that a window made a picture was also expressed visually. [Figs. 3.4-3.6] Large and unmullioned sheets of glass, horizontally oriented in the window opening, were clearly related to the creation of a landscape scene. More literal interpretations were, on occasion, forthcoming, as in the advertising campaign for Angeles Mesa. The picture was in a sense associated less with landscape and more with the window that framed it. In 1922 *House and Garden* felt compelled to advise readers to simplify their windows, to subdue ornament and mouldings, a position advocated as well by a 'well-known maker of windows.' They pointed out that the window "should form the background for the picture, not the picture itself." In doing so they suggested that readers may have been experiencing some difficulty distinguishing the two.[11]

Though related to the uses and images that came before it, the modern sense of the term stems from another advertising campaign: early in 1934 window manufacturer Libbey-Owens-Ford introduced "The Picture Window Idea": "A Picture Window is made by setting into one wall of a room a single piece of fine polished plate glass, considerably larger than an ordinary window, so

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11. Mary Fanton Roberts, "If You are Going to Build," (regular column) *House and Garden* 41:1 (January 1922) 24.

that the ever changing vista through it paints what is, in effect, a marching mural on your wall." With this beginning, Libbey-Owens-Ford set out several of the themes that would recur in relation to the picture window. It was a something new, something extra-"ordinary"; it was bound to a view; the view was part of the interior; this new interior element was created by the agency of nature, that is, the view painted itself on the inside surface of the wall; finally, the view was like a picture or, even better, an animated picture. The manufacturer claimed that picture windows were "an important feature of this new era of gracious, spacious living."[12] [Figs. 3.7-3.9]

Libbey-Owens-Ford recognized that views figured prominently in the selection of homesites and pointed out in subsequent advertisements that the picture window made the best of such decisions. The picture window was a part of the building that capitalized on the view; it maximized economic assets by stabilizing the view, by internalizing and in a sense privatizing a piece of the outdoors. The overall effect, the manufacturer asserted, left one not a little awed: "Anyone who has chosen a home-site with due consideration for its surroundings has some favorite view. A Picture Window to frame that view will bring constant enjoyment, for Picture Windows blend the exterior and interior in a remarkably effective manner and create an air of spaciousness that defies description."[13] However hyperbolically, the ad copy suggested to the hundreds of thousands of readers of both *House and Garden* and *House Beautiful*, which also ran similar ads, that the picture window was the threshold of an emotive realm that outstripped rational explanation. Libbey-Owens-Ford expounded on "The Picture Window Idea" month after month for several years. By the end of the 1930's, the "picture window" had become an identifiable object in residential design, meaning in particular a large piece of unobstructed sash *and* a view of some landscape. Although the actual form of the picture window varied according to the particular writer or publication, it was inextricably linked to what could be seen beyond it.

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12. Advertisements appear in both *House and Garden* and *House Beautiful* in March, 1934.

13. *House Beautiful* (April 1935) 73.

The emphasis on landscape was a striking change from earlier ads. [Figs. 3.10-3.12] The company had been founded to take advantage of a new process of manufacturing flat drawn window glass patented in 1905.[14] Earlier advertisements stressed the flatness of the glass, which made it free of distortions, created uniform reflections from the outside, and permitted "perfect vision" from inside. Later in the 1920's, Libbey-Owens-Ford sharpened this distinction and explained to readers that glass "has a double duty to perform. From within, it must give you a clear, sharp picture of whatever lies beyond it. From the outside, . . . it must present even, regular reflections to passersby and guests about to enter." In this series, advertisements contrasted a distorted view with the clarity of the new glass. Scenes beyond the glass included indications of leisure such as tennis playing, or signs of social class, indicated by the house across the street. Other advertisements equated the clarity of the product with an impressively multi-valent image of transparency.

Whether the window looked on to the active enjoyment of leisure time, well-appointed neighbors, or the crystalline relations between partners in progress, Libbey-Owens-Ford remained focused on the issue of undistorted vision. Clarity was the quality they were selling in a Libbey-Owens-Ford window; "whatever lies beyond it" seemed beyond their control. After 1934 however, Libbey-Owens-Ford would not be so indifferent. From that point on, "whatever" became nearly always a landscape. Even when the pictures seen through windows included other houses, they were seen from above and from a distance, subordinate to the overall scope of the scene and appearing more as properties of the landscape than a landscape of other people's properties. [Fig. 3.9] To a reader of *House and Garden*, Libbey-Owens-Ford seemed to have taken seriously a question posed only months before they introduced the Picture Window Idea. "Why not consider the pictures which

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14. The technology was developed by Libbey-Owens Sheet Glass Company after having acquired the patents of Irving Colburn, who originally developed the process. In terms of the quality of the glass and the speed of production, it had, as the ads claimed "revolutionized the making of window glass." See Cecil D. Elliott, *Technics and Architecture* (Cambridge, MA: MIT Press, 1992) 143, and McGrath and Frost, *Glass in Modern Architecture and Decoration* (1937) 33-34.

windows bring into our lives?" asked Elsie Jenkins Symington in an article titled, "Let our windows all be filled with views."[15] Why not indeed?

Besides emphasizing the landscape in its introduction of the picture window, Libbey-Owens-Ford also began to specifically address modernism in architecture. In May 1934 for instance, they ran a full-page ad featuring Richard Neutra's VDL Research house in Los Angeles. [Fig. 3.13] The window manufacturer unabashedly admired Neutra's use of glass, excessive by most standards of the day. The excess of glass in turn signified something new, both in terms of architectural style and in terms of lifestyle. With its pronounced motif of material progress, modernism had struck an optimistic note even in the depths of the Depression. If the economy had faltered, at least technology was still marching on and its manifestations were often stunning, not least of which was the modern house.

Though related in many ways, landscape and architecture have often been taken to lie at opposite ends of a spectrum.[16] Based on a paradigm of construction, different practices of architecture converge on the creation of enclosure and the articulation of boundaries. Landscape on the other hand, particularly within a Picturesque lineage, involves something more extensive and more continuous. Architecture might be adjusted to the landscape but in the eyes of most architects it became something less than architecture when it was subordinated to landscape. The genius of Libbey-Owens-Ford's "Picture Window Idea" was how it brought these two terms together.

Their association of picture windows with modernism lent looking at landscapes a progressive aspect. At the same time, landscape pictures gave the aggressively modern glass wall a more seasoned feeling. An almost immoderate proportion of glass made it a modern feature; but by opening the house up so dramatically to the outdoors, it posed a return to nature. The sentiments

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15. *House and Garden* (January 1934) 46-7, 68.

16. See, for example, Gina Crandell, *Nature Pictorialized. "The View" in Landscape History* (Baltimore: Johns Hopkins University Press, 1993) 5. Rosalind Krauss fits sculpture in the space between the two in "Sculpture in the Expanded Field," in Krauss, *op.cit.*, 276-290.

may have been vague ones, perhaps necessarily so, but they were explicit. In one of its very first advertisements for the product, Libbey-Owens-Ford claimed for their invention a dual origin: "Picture Windows . . . There is something distinctly modern about them . . . yet something equally mellow and pleasantly old as the ages."[17] They appealed to competing instincts for progress and nostalgia. Bound in a single building element, the modern and the mellow modified one another. While the process had begun much earlier, Libbey-Owens-Ford managed to codify it. By putting nature behind a glass in the living room, the picture window expanded upon earlier touristic definitions of nature and helped perfect the privatization of landscape.

The picture window made architecture a way of seeing the landscape. Beside the formal innovations of modernist landscape architects then, seeing it through walls of glass must be considered one of the ways the landscape became modern. It made the position of the spectator explicit, even fixed, just as it formalized the proper object for display. Whatever evocative power it had, the picture window drew from both architecture and landscape, two realms related yet distinct, at times in conflict. In this sense, the picture window was from the start an interdisciplinary building element, combining technical progress in construction with insight into nature. After the 1930's the alleged modernity of large areas of glass was found more often in the view than in the revelation of new construction technologies for which glass was praised a decade earlier. At the same time, large windows were the key to optimizing landscape views, an operation previously the domain of landscape gardening. More than simply a fortuitously-named building product, the picture window simultaneously touched on themes common to technological utopia and national mythology.

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17. *House Beautiful* (March 1935) 67.

"Something Distinctly Modern"

> Without glass, what would the modern world be like?
> *House Beautiful*, 1926[18]

> Perhaps the greatest eventual difference between ancient and modern buildings will be due to our modern machine-made glass.
> Frank Lloyd Wright, 1928[19]

While glass had been known since ancient times, its mass production and distribution in the nineteenth century, as well as its flatter surfaces and greater sizes, were recognizably of recent vintage. Although steps toward the mechanization of production had been taken earlier, the Colburn method, which Libbey-Owens-Ford had been organized to take advantage of, was responsible for the most rapid developments: most window glass was handblown in 1910; fifteen years later handblown window glass had all but disappeared, accounting for one percent of total production.[20] With the use of steel for larger openings and lighter building frames, and with improvements in interior climate controls, whole buildings could be made of glass. In exhibition pavilions, arcades, storefronts, even in home conservatories, glass walls indicated something new and distinctly modern.

While glass was cemented to the logic of industrialization and technological progress, it was not until the 1920's that the material was positively incorporated within architectural theory. Indeed, new possibilities for the use of glass very nearly made the practice of architecture impossible, at least according to influential critics like Ruskin. After the turn-of-the-century, however, and especially in Germany, glass enclosures came to be valued as a formal expression of the new realities of industrial production. A glass architecture was consciously commensurate with the

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18. *House Beautiful* (August 1926) 214.

19. "In th e Nature of Materials -- Glass," *Architectural Record* (July 1928). "The history of architecture is the history of the struggle for the window," is how Le Corbuiser put it. Cited in John Peter, *Design with Glass* (1964) 7.

20. Cited in Wayne Michael Charney, "The American Glass House: Its conception and its realization, 1850-1950," Ph.D. dissertation, Northwestern University, June 1985. p.29.

progress of its age. It was at once a new material itself and at the same time, by virtue of its transparency, able to highlight new methods of construction. For Mies van der Rohe, expression of the new structural thinking was "the basis of all artistic design" and glass made that basis manifest: "We can see the new structural principles most clearly when we use glass in place of the outer walls."[21] Walls of glass facilitated recognition of the formal beauty of structure, before the outdated and dusty notions of conventional architecture buried the novel principles behind layers of applied ornament.[22] [Fig. 3.14]

Only modern architecture foregrounded new materials and called upon them to express their modernity. It thematized technical achievement and sought formal parity with progress in the material sphere. Based largely on these prior European developments, International Style modernism was famously launched in the United States at the Museum of Modern Art in 1932. In the popular periodicals it was routinely identified by its extensive use of glass and occasionally even identified as "fenestrated architecture." Coupled with other formal innovations, wide areas of glass were thought to be an imported idea. Besides MOMA's polemical presentation of the style, key articles on the new uses of glass were written by Europeans. The Danish architect Lönberg-Holm for instance brought detailed technical discussion of glass to *Architectural Record*

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21. "The novel constructive principle of these buildigns comes clearly into view if one employs glass for the no longer load-bearing exterior walls." In *Frühlicht*, 1:4 (1922) 122-24 and cited in Fritz Neumeyer, *The Artless Word. Mies van der Rohe on the Building Art*, trans. Mark Jarzombek (Cambridge, MA: MIT Press, 1991) 240.

22. In 1926 Richard Neutra admired the skeletal construction of the Palmer House Hotel in Chicago, which he supervised, but lamented that it would soon be concealed by opaque walls. He discussed with the publisher of *Wie Baut Amerika* whether or not to include photographs of the completed building, which did not simply hide its bold construction but lied about it. In Thomas Hines, *Richard Neutra and the Search for Modern Architecture*.

    The first histories of glass in modern architecture repeat this understanding of the role of glass as sign of technical innovation. Korn, for example, thought glass revealed both structure and the new spatial expression by allowing a view into and through a modern building. Initial impressions of a buildng no longer were limited to the relatively flat statement made by the facade; now the inside could be the first impression. The formal recognition of new materials and new methods of construction has been one of the most enduring themes in the story of modern architecture and includes some of its most radical visions were premised on the expressive possibilites of new kinds of construction. This attitude is already evident in Korn's title: *Glas im Bau und als Gebrauchsgegenstand.* (Berlin: Ernst Pollak, 1926). See also, Otto Volckers, *Glas und Fenster: Ihre Wesen, Ihre Geschichte und Ihre Bedeutung in der Gegenwart* (Berlin: Bauweltverlag, 1939).

in 1929. He elaborated here on glass's varying ability to transmit or block radiant phenomena like light and heat. Prior to this, articles on glass focused more on questions of character and details of glazing. "Windows," an article by German architects A.Laurence Kocher and Albert Frey directly addressed Americans. They contrasted American concern for character with European emphasis on technical expression.[23] In *American Architect* German architect Leopold Arnaud conjectured that European designs used too much glass for American taste. A project such as Mies van der Rohe's Tugendhat House in Brno, Czechoslovakia with its open plan and glass walls would, he thought, be entirely unacceptable.[24] Thomas Tallmadge, on the other hand, suggested that although large windows were unfamiliar to most Americans, they were not hard to like: "Windows, which have been exalted to unprecedented importance, arranged in strips and turning corners with impunity are not unpleasing when you get used to them."[25] An all-glass house, such as Philip Johnson's in New Canaan, Ct., was an essentially Miesian idea, Johnson wrote in 1950.[26]

Given the supposed obstacles, Americans accepted the extensive use of glass remarkably quickly. In some formulations, the material itself was credited with agency, almost insisting that form change to accommodate it: "Glass. There are so many attractive, unusual things you can do with it, that glass has actually brought about a revolution in design."[27] Certainly by the middle of the 1930's, the role of glass in the establishment of distinctly modern design was already a commonplace. "The advent of the modern house and its effect upon window design is too well known to require more than passing mention; here the window comes into its own, taking full advantage of the developments in manufacturing processes. . . . it is safe to predict that glass will

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23. "Windows," *Architectural Record* 69:2 (February 1931) 127.

24. *American Architect* (May 1932).

25. It was not until 1933 that "the theory of the 'New Architecture' was presented to the American people," Thomas Tallmadge, *The Story of Architecture in America*, 2nd edition (New York: Norton, 1936) 305-08.

26. Philip Johnson, *Architectural Review* 108:645 (September 1950).

27. At least that was how Libbey-Owens-Ford put it in one advertisement, *House Beautiful* (June 1934) 67. Big glass almost precipitated a modern style since doing period houses with it was impossible and doing without it was also, according to the *Christian Science Monitor* (28 October 1936) and cited in Charney, *op.cit.*, 98.

be used in larger sizes." In 1935, greater use of glass was one of the few predictions anyone seemed to have confidence in. "One thing is fairly certain: whatever kind of window is used, the house is going to have more of them," *Architectural Forum* asserted.[28] More than simply shaping the present, glass was, many felt, continuing to compel change: it was shaping the future. In 1939 *House and Garden* began a review of recent uses of glass: "Within the past few years all the brave new worlds have been full of glass houses. Glass has become a symbol--associated in our minds with progress, Utopias and the sleek and cleanly future." "Glass adds sunny vistas of spaciousness and comfort," the issue continued, which was a central benefit of Pittsburgh Plate Glass's "House of Glass" in the "Town of Tomorrow" at the 1939 World's Fair in New York.[29]

Small windows, in contrast, seemed to bind a building to a rapidly receding past. Perhaps for this reason, little windows were the first aspect of period styles wholeheartedly relinquished by conservative architects. The form of the colonial house may have been pre-industrial, but "use of large picture windows and glass block places the homes in the twentieth century despite the shingles, clapboards and dormer windows which provide traditional flavor."[30] Large windows were just about the only element of design modernists and traditionalists could agree on.[31] Though conflated with glass walls in general and consequently associated with a modernist program in architecture, the picture window could safely serve traditional design. As *Architectural Forum* had already put it in 1942: "A really dramatic picture window in the living room is dear to the heart of the conservative as well as the modernist."[32] Though large windows created or aggravated a number of significant problems with lighting, heating, ventilation, and

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28. "Glass," *Architectural Forum* 63:6 (December 1935) 612, 608.

29. "Glass Horizons," *House and Garden* 76:2 (August 1939) 13, 16.

30. *Architectural Forum* 106:3 (March 1949) 129.

31. Reviewing the architectural literature of the postwar era, historian Thomas Hine wrote: "The most often remarked-upon feature of the suburban house is the picture window, which made its way into virtually every style and price of house built during the period." In *Populuxe*, (New York: Knopf, 1986) 52. Before the mid-1940's the term could refer to a large window or an "enormous picture window-wall." (*House and Garden* (August 1947) 20).

32. "The House of 194x," *Architectural Forum* (September 1942) 69.

privacy, such defects could be addressed without obstructing the view. For clients adventurous, wary, or undecided, the picture window was a ticket to modernity.

Rather than being simply, or only, a sign of sloppy design thinking, this flexibility was a keynote of the picture window. The fluid nature of the term was due at least in part to the fact that it was related as much to a picture as it was to a window. It functioned as a shorthand for the idea that a wall of glass made a panorama a permanent aspect of the private sphere.[33] In the *Time* magazine cover story on him, indisputably modern Richard Neutra claimed the picture window to be a distinctively modern feature and argued the importance of making sure it contained a natural picture.[34] Considering the picture window to mean simply a double-glazed or "Thermopane" window, Edwin Bateman Morris nonetheless granted picture window its modernist heritage: "The modern house centers about the theorem of bringing in, as available, the great out-of-doors. . . . This theorem has resulted in the picture window . . . which brings in the nice part of Nature and excludes the other." Though modernists would come to disown it, modern parentage of the picture window was not in question.[35]

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33. "Where it is desirable to bring outdoor environment, so far as possible, within the house, there can be no more effective means than the use of a continuous series of picture windows that virtually create a transparent plate-glass wall," wrote Eberlein and Hubbard in 1937, cited in previous chapter. The *Oxford English Dictionary*'s first citation is from the following year.

34. In *Time* (15 August 1949) 63.

35. In Bateman, *op.cit.*, 63. See also, Michael Pollan, "A Touch of Glass. Reflections on the picture window," *House and Garden* (September 1996) 132-36.

> But whereas the concern of the twenties had been with the modernity of the house, the concern of the mid-thirties--by which time the ideology had become fairly well established and its adherents could relax a bit--was to reconcile the *avant garde* esthetic to images and values traditionally adhering to 'house' and 'home.'
>
> William Jordy, 1972[36]

> Any modernism that will last must have its roots in what has gone before.
>
> *House and Garden*, 1933[37]

Assimilating the radical edge of architectural modernism to the standard patterns of consumer culture had become by the 1950's something of an avocation. Architects and writers on architecture tried to demonstrate how modern forms either answered older needs or were moderated by older patterns of building. Glass walls received special attention in this regard. *House and Home*'s 1952 "traditional house in the modern idiom," for example, balanced "classical discipline and modern, technological freedom." Large sheets of glass, interestingly, were found on both sides of the equation since they indicated, on the one hand, "the technology of our time," while on the other hand, they allowed one to borrow from the surrounding landscape a sense of colossal dimensions. Proffering thereby a monumental scale, glass walls could suggest the "permanence of 'home'" rather than the "temporariness of 'industrialized shelter.'"[38]

Another strategy was to claim that modern forms were actually much older than anyone had previously thought and were therefore already assimilated. This was the approach taken in 1950 by *House Beautiful*. In an issue dedicated to "the emerging American style," James Marston Fitch explained how the "new American architecture started 70 years ago" with the imposing figure of

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36. "The Domestication of Modern: Marcel Breuer's Ferry Cooperative Dormitory at Vassar College," *The Impact of European Modernism in the Mid-Twentieth Century* (New York: Oxford University Press, 1972) 167.

37. Richardson Wright, "Will our ancestors shudder at modernist architecture?" *House and Garden* (November 1933) 30.

38. Referring to houses in New Canaan, Connecticut by Breuer, Johnson, and Johansen. *House and Home* (January 1952) 108-09.

H.H. Richardson. It had proliferated since the 1880's through the countless decisions of anonymous architects and clients, all of whom insisted on the satisfaction of practical needs rather than stylistic conventions.[39] In her article "Prophet without Honor," Jean Murray Bangs, wife of architect Harwell Hamilton Harris, continued to show how the modern American house originated in the late-nineteenth century. After first considering Maybeck, she settled on the work of Greene and Greene, which included use of wood, an attention to practical details, and a premonitory use of glass:

> The large glass areas in the new houses were anticipated by Greene and Greene, who used glass walls in the early 1900's. The dining room in the Blacker house in 1907 has windows on three sides of the room, and is divided by a sectional glass wall which can be folded back out of the way. The Crocker house in 1909, designed by Henry M. Greene, has a long gallery on the south, one wall of which is entirely of glass. In the Cordelia Culbertson house in 1911, the glass wall of the garden room can be made to disappear above the ceiling . . .[40] [Figs. 3.15-3.17]

In other words, glass walls in the 1950's were definitely something new; it was just that they had been new for a long time. Appreciated for generations, although without much fanfare, they were already visible in the everyday environment of the best houses. Along with other important characteristics of the "American Style," glass walls were so naturalized they had become invisible: "We have not been quick to recognize our new American Style because of its grass roots origin. Its very familiarity has made it hard to see, and made us take it for granted."[41] The new architecture and the old were more continuous than anyone had imagined. Their chief distinction was the degree of self-awareness with which they were practiced. According to *House Beautiful*, what was lauded as modern in 1950 was presaged by nearly anonymous nineteenth-century

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39. Fitch, "The New American Architecture Starte 70 Years Ago," *House Beautiful* 92:5 (May 1950) 134-37.

40. Bangs, "Prophet without Honor," *House Beautiful* 92:5 (May 1950) 138-39, 178-79. Bangs was instrumental in the new attention given Greene and Greene beginning in the late 1940's. Her article in *Architectural Forum* (October 1948) was cited when the regional A.I.A. chapter gave a special award to the brothers. Mumford had perhaps initiated this effort in his writings on the Bay Area style.

41. Elizabeth Gordon, "The New American Style grew from America's Way of Life," *House Beautiful* 92:5 (May 1950) 123.

vernacular architecture. What was old in this case wasn't just the landscape then, essentialized as an eternal presence. Rather, it was the very habit of looking at the landscape through glass.

While the campaign to Americanize modernism appears in retrospect a bit forced, *House Beautiful* was correct regarding the development of glass walls and picture windows. Peering through glass was a nineteenth-century habit that was, moreover, embodied in a formal invention, the "landscape window." Of all the architectural elements that might frame or feature a view--oriels, bay windows, French windows, cupolas, loggias, belvederes, porticoes, even the colonial American "widow's walk"--the landscape window most directly prefigured the picture window. In formal terms, it was composed, like the picture window, of a large fixed pane of glass at the center and flanked on either side by casements or decorative bands, sometimes with operable sash above or a decorative transom. It could be considered as a "triple window" or also as a type of "cottage window," a millwork term referring to the relatively high placement of the meeting rails within the opening and a lower portion much higher than above.[42] Typically having a more elaborate configuration than the other windows in the house, the landscape window would serve a main room and, for that reason, was usually found at the front of a house.[43] The landscape framed by the landscape window then, nearly always involved a street. Although formally similar and sharing a key rationale with the large windows of Shingle Style homes and later Arts and Crafts inspired work, such as that of the Greene Brothers, the landscape window was mass-produced

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42. Jan Jennings and Herbert Gottfried, *American Vernacular Interior Architecture 1870-1940* (New York: Van Nostrand, 1988) 10, 16. *Universal Design Book* (St.John, N.B.: Lawton Co., 1903), reprinted as *The Victorian Design Book* (Ottawa: Lee Valley Tools, 1984); *Roberts' Illustrated Millwork Catalog* [1903] Mineola, NY: Dover, 1988); *Late Victorian Architectural Details* (Watkins Glen, NY: American Life Foundation Study Institute), reprint of 1898 "Combined Book of Sash, Door, ..." Landscape windows appear under the heading of "front window" or "cottage window." Though appearing in some versions to be double-hung, they were only minimally operable.

43. The form of course suggests a "Chicago window" and hints powerfully at the commercial origins of large areas of glass. It was just such commericial overtones that led many to feel that large windows were only appropriate for "large buildings." See Frederick Houston, "Both Sides of the Window," *House and Garden* v.48 (August 1925) 86. Giedion referred to streetfront display windows in particular rather than Chicago windows: "It was from these store windows that we first learned how to use large glass areas in dwelling houses." *Space, Time, and Architecture* (1967) 195. Recall as well the discussion above concerning the real estate industry's transfer of commercial practice to residences. A more detailed study of the relation of the landscape window to the Chicago window is overdue.

and intended for suburban and largely unremarkable sites. Nevertheless, it expressed a confidence that there was something visually attractive about the surroundings that were acquired along with the house. [Figs. 3.18-3.20, See also Fig. 3.6]

Although it was a staple in millwork catalogs at the end of the nineteenth century, the landscape window seems to have escaped not only historical scrutiny. Even in its own day it was rarely discussed, at least by name. Russell Sturgis, for instance, carefully described a landscape window in his *Dictionary of Architecture*, although he never named it as such. Writing about trends in window design for residences he noted that although vertical windows were "the usual form" in dwellings,

> in recent American work windows have been built nearly as follows: opening in wall, 10 feet wide, 7 feet high, with the sill 2 feet 8 inches above the floor; one heavy transom, about 4 feet above sill; the space above the transom filled with two or three swinging casements between mullions; the space below the transom fitted with a fixed frame holding a single sheet of plate glass. Many modifications of this arrangement will suggest themselves.[44]

If the term was not well recorded, the function, nonetheless, was: the landscape window was premised on prospect. The central pane of plate served the view, while sidelights and transom accommodated ventilation or interior daylighting and, at the same time, provided a luminous frame for the outside view. In 1923 Greta Gray repeated what had become a common analysis: "It is the upper part of the window which is most efficient for lighting the room, but it is the lower part through which we gain glimpses of the outdoor world."[45] As Alfred Hopkins candidly noted in retrospect, the view was the primary motivation behind the form: "The 'landscape window,' as you know, is a great sheet of plate glass let into the side of the house to afford a better view of the beauties of nature at that particular point. It was a pretty conceit and sometimes it framed a

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44. Russell Sturgis, *A Dictionary of Architecture and Building* v.2 (London: Macmillan, 1902) 1065.

45. Greta Gray, *House and Home. A Manual of Practical House Planning* [1923] (Chicago: Lippincott, 1935) 36.

pretty picture."[46] Unlike other architectural elements devised to capture a view, the landscape window was created *en masse* in anticipation of a view. Named neither for its operation, as a double-hung window, nor by its form, as a bay window, the landscape window was defined in relation to what was seen behind it. It was as much a constructed thing as it was a scene.

Although landscape appreciation was at the center of the landscape window, even the sidelights and transom were thought to serve the view. Often operable, they could offset the fact that the center pane was usually fixed, being too heavy for easy and reliable operation. More importantly, sidelights and transom had an explicit decorative role and frequently sprouted floral motifs. They framed any particular view within a larger realm of aestheticized nature. Even so simple a device as small square or diamond panes suggested to Helen Lukens Gaut in 1914 "garden trellises" and enhanced her sense of being out-of-doors. Additionally, the landscape window made for a better interior; windows grouped in units of three wouldn't break up the wall surface the way windows placed intermittently would. With its pattern of mullions or muntins, the landscape window could register and extend the plane of enclosure but without its customary opacity. By "thus securing a pleasing balance of spaces and at the same time insuring for the room a broad view," the landscape window facilitated both view and a strong sense of enclosure.[47]

Though a modest vernacular invention, the landscape window nonetheless registered some of the more acrimonious debates of its day, encompassing issues not only of architectural form but social protocol as well. On the one hand were technological changes in mechanical systems and in glass manufacturing that had made big windows in the home feasible. Allied to these developments were consumer interest both in material comforts and in obtaining private relations with the outdoors and, at the same time, a growing financial wherewithal to incorporate what was believed to be progress in the domestic sphere. On the other hand were the social conventions of domestic practice and their spatial accommodations, which had developed over decades in the nineteenth

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46. Alfred Hopkins, *Planning for Sunshine and Fresh Air*, (New York: Architectural Book Publishing, 1931) 37.

47. Helen Lukens Gaut, "The Window," *The Craftsman* 25:4 (January 1914) 393.

century. Corresponding to these conventions were the canons of architectural form and good taste in design. Many architects had been complaining late in the nineteenth century of the disturbing trend toward more and bigger windows and larger individual pieces of glass. More often than not, such things were demanded by uninformed clients; they were only too willing to do without architectural niceties if it brought them a better view. While the view seemed to call for ever larger pieces of glass, the proprieties of Victorian domestic life called for the integrity of enclosure and the comforting sense of containment.

The unnamed landscape window resolved such tensions, briefly at least, by simultaneously accommodating the view and moderating it. Sturgis had already noted that a certain formal flexibility was part of the general character of the landscape window. Helen Gaut likewise noted that the sidelights or transom constituted a flexible veil of enclosure and could be used to screen out blemishes in the view. She allowed in fact that the ability to obscure the view altogether was part of the landscape window's flexible logic: "Where the owner does not care especially for the view, or even perhaps prefers to shut it out as much as possible, a window made entirely of small panes may seem preferable."[48] Owners had in the large central pane a view unobstructed by either fussy details or their architect's obstinate attachment to historical forms. For their part, architects had the means to moderate the appearance of the opening both from within and without. Transom and sidelights were levers with which to reintroduce architectural effects to what would otherwise have been violations of the wall. Though predicated on the absorption of new materials and interest in seeing the outdoors, the landscape window was still able to respect these more conservative architectural values. The formal flexibility of the landscape window, and a corollary cloudiness in its recognition, were precisely what made it such a convenient site for competing interests.

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48. *Ibid.*

The Muntin Dispute

> In the 1880's and '90's, in addition to extending the window areas to the utmost we also indulged in the single sheet of glass for the entire sash, and even today battles have sometimes to be fought over questions of the muntined or the single sheet window.
>
> Frederick Houston, 1925[49]

Where Gaut was optimistic about the use of large windows, Sturgis had been morose. He thought the panes of plate glass being used even for show windows in commercial buildings were already too large, let alone their use in residences. They gave the appearance of a window that was perpetually open and created "a positive hole made in the wall substance." The result was an entirely "unarchitectural effect." A number of architects had set about correcting this effect precisely by framing great sheets of plate glass with decorative bands of leaded or colored glass. "As yet no very successful result has followed," brooded Sturgis. Much of the domestic architecture of England and France, however, had the good luck to have been built before the development of large panes of glass. "In the country houses of moderate cost throughout France and England glass was used in small quarrels . . . This fortunate circumstance, of great value in domestic external architecture, was done away with by the introduction of large lights". Sturgis's "fortunate circumstance" referred precisely to a lapse in technological development in glass manufacturing and a time when the indiscretions of architects would have had less devastating effects on the practice of architecture.[50] Though typically sporadic, brief and polemically unfocused, discussions of the size of the pane and the fate of the muntin explicitly pitted technical change against architectural proprieties and the social needs they were believed to serve. Taken together, these debates are a record of competing conceptions of dwelling and inhabitation under pressures of technological change.[51]

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49. Houston, *op.cit.* 43.

50. Sturgis, *op.cit.*, 1066.

51. The quarrel over the use of quarrels, that is, the use of small panes or great for windows, not only prefigures later debates over windows such as that of Le Corbusier and August Perret regarding horizontal or vertical windows. It also continues to the present day. Most recently, the topic has come up in discussions regarding historic preservation: whether integral or snap-in muntins preserve historic character or pervert it. Concern for the disposition of muntins is well-placed for the architectural purposes of imparting scale and shadow to openings. "Today's windows are now manufactured with 'snap-in' or other artificial

Muntins had first to become unnecessary before anyone appeared willing to insist on their use. While large sash was technically possible earlier, it was only in the late-eighteenth century that industrial processes accelerated glass production and lowered prices. Improvements in transportation including paved roads, shipping and handling, and distribution networks also facilitated the use of larger panes of glass. Glass-roofed arcades, hothouses, commercial show windows, home conservatories and the use of more and larger windows were evidence of the larger panes and lower prices of the glass industry.[52] The process only accelerated with the elimination of glass and window taxes in England. Additionally, inventions and refinements in the mechanical delivery of light and air seemed to actively perform those functions previously associated exclusively with windows. In all, designers were obliged by social expectations to incorporate such technical changes but also to reconcile them with professional conventions. The resulting compromises, as Sturgis made clear, were not always appreciated.

The author of *The Honest House* suggested that English domestic architecture had been fortunate to have a glass tax that impeded the incorporation of technological change and kept window sizes small. The invention of a new technology was not, she felt, sufficient cause to begin incorporating it. Window technology at least had still to submit to standards of good taste: "The offense doesn't lie in the fact that the windows are of *plate* glass," wrote Ruby Ross Goodnow, "but in the hideousness of an unbroken expanse of glass."[53] [Figs. 2.1-2.2] In fact, as Marc Girouard has pointed out, the sizes of window glass used in country homes greatly increased after 1851 when the glass tax was rescinded. For twenty years large sheets of plate were widely favored and fit

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muntins. Why? Because homeowners prefer the appearance and charm of the older winodows that had muntins. *The muntins divided the glass into more human-scale elements.*" James Wentling, *Designing a Place Called Home: Reordering the Suburbs* (New York: Chapman & Hall, 1995) (Emphasis in original). Homeowner preference for muntins is confirmed also by this author's own experience in preservation work.

52. While glass obviously afforded a view out in such buildings, it was often conceived of as a better sort of sky, providing light without the drawbacks of rain or wind.

53. Ruby Ross Goodnow, *The Honest House* (New York: Century, 1914) 92. "We must remember that everything depends on how we use a material, not on the material itself" was a similar point made by Mies van der Rohe in 1950. Cited in Philip Johnson, *Mies van der Rohe* (New York: MOMA, 1947) 203.

well with trends toward reduced ornament and a visually coarser grain of detail. Later in the century--Girouard traces it to Nesfield's 1868 design for Leys Wood--small panes came back in fashion.[54]

Just as improvements within the building trades were pressuring architects to eliminate the muntin, the development of landscape gardening was putting pressure on them from outside the profession. Picturesque-era houses not only recalled aspects of the landscape in undulating forms or natural colors. They also were often aligned with views out to the landscape, formal asymmetries sometimes being based on orientation to particularly compelling vistas.[55] Once seeing the landscape from within the house became a matter for architectural design, it was only a matter of time before someone would focus on the unintended muntins between the viewer and the view. Humphrey Repton was probably the first to make the point in print. In *Fragments on the Theory and Practice of Landscape Gardening*, Repton noted an anomaly at the heart of his chosen profession: "There is no subject connected with Landscape Gardening of more importance, or less attended to, than the Window, through which the landscape is seen."[56] Beginning with this as his premise, he reasoned that the muntin had to go: "There is a circumstance relative to windows which is seldom attended to, and which has never been mentioned in books of architecture, viz., the situation of the bar, which is too apt to cross the eye, and injure the view, or landscape."[57] An illustration of a cottage designed around 1820 by John Nash, who frequently collaborated with Repton, already represents a solution to the injurious "situation of the bar." The muntins have been literally pushed aside to heal the otherwise injured view. [Fig. 3.21] Though muntins, mullions, and sash bars are distinct elements technically speaking, they were linked by virtue of the impediment they presented to vision.

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54. In *The Victorian Country House* (Oxford: Clarendon Press, 1971) 15.

55. *Ibid.* 219-228. A location in the country was also architecturally registered by a number of other means such as rustication.

56. "Fragment IX," *Fragments on the Theory and Practice of Landscape Gardening*, (London: T. Bensley, 1816) 29.

57. *Ibid.*, 30 (footnote).

By the late-nineteenth century, muntins were routinely rejected for one primary reason: they ruined the view.[58] Based on their survey of contemporary design practices, Edith Wharton and Ogden Codman were able to set out several principles governing use of window divisions:

> Mullions dividing a window in the centre should be avoided whenever possible, since they are an unnecessary obstruction to the view. The chief drawback to a casement window is that its sashes join in the middle; but as this is a structural necessity, it is less objectionable. If mullions are required, they should be so placed as to divide the window into three parts, thus preserving an unobstructed central pane. The window called Palladian illustrates this point.[59]

While they acknowledged the popularity of large sheets of glass, and even found for the landscape window a noble forebear, Wharton and Codman hastened to add that the wall and its windows had other tasks as well:

> . . . it must be remembered that the subdivisions of a sash, while obstructing the view, serve to establish a relation between the inside of the house and the landscape, making the latter what, *as seen from a room*, it logically ought to be: a part of the wall-decoration, in the sense of being subordinated to the same general lines. . . .The effect of a perpetually open window, produced by a large sheet of plate-glass, while it gives a sense of coolness and the impression of being out of doors, becomes for these very reasons a disadvantage in cold weather.[60]

On the other hand, Henry Hudson Holly thought that too few architects took the accommodation of views seriously enough. They all too often allowed their window designs to be governed by secondary considerations, such as historical style. Although small panes were integral with the

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58. Goodnow, *op.cit.*, 91: "The defense of the large pane of glass is commonly based on two considerations:--the small pane window is more difficult to clean, and the muntins between the panes obstruct the view." Despite contemporary concerns for hygiene, more ink was spilled more ardently on the integrity of the view.

59. Edith Wharton and Ogden Codman, *The Decoration of Houses* [1897] (New York: Scribner, 1902) 66-67. Knowledge of structural necessity was a step toward aesthetic approval but much less so than it was to become.

60. *Ibid.*, 66-67 (Emphasis in original). Due to the imperfect absorption of mechanical systems for lighting and ventilation in their day, Wharton and Codman still claimed that obtaining a view was a tertiary function of the window at best: "As light-giving is the main purpose for which windows are made, the top of the window should be as near the ceiling as the cornice will allow. Ventilation, the secondary purpose of the window, is also better served by its being so placed." This was even more relevant in northern states where light and air were in shorter supply. *Ibid.*, 65.

Queen Anne Revival, "for us to go back to the use of small panes, only because they belong to the style, would be ridiculous. We should not only injure our view by cutting it up with these little checkered squares, but would miss the brilliant effect that we might obtain from that most beautiful of modern inventions, plate-glass." Small panes were only acceptable to Holly when there wasn't any view.[61] Given the course of technological change, the proper goal of window design should be total transparency, Holly continued. "From the interior, plate-glass is so absolutely translucent, that no obstruction seems offered to the view; so that, in case of a window glazed with a single light, it is often supposed that the sash must be open, which is the acme of the effect to be produced." Holly took obvious pleasure in "the effect of a perpetually open window," telling a story about a house-guest who tried to walk through one; he was pleased also with the thought of a corridor of plate glass, with plants inside and views to the outside.[62] Big glass meant that a window could appear open on a permanent basis rather than occasionally, like the windows at Knowle Cottage. Moreover, Holly believed plate-glass was particularly suited for a house in the countryside, since there was so much more beauty to see there. The view mattered most even from outside the country house since plate-glass behaved at times like a mirror: reflections upon it were "clear and perfect." An expanse of unmuntined plate, "as it is approached, its delineation of the lawn and distant scenery is a picture which none but the Great Architect could paint." Being broad and transparent, and in the right setting, the window was heightened in functioning by becoming a kind of crystalline canvas, reproducing on itself the highest beauty.[63]

While elimination of the muntin was generally pursued to improve the view, arguments on behalf of the continued use of muntins typically centered around the disregard of architectural form. Large sheets of glass disrupted the scale of both interior and exterior and surrendered tools and opportunities for architectural expression. "Character" was the primary trait so threatened by loss of the muntin. Rather than judging architectural merit on the volumetric accommodation of

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61. Holly, *Modern Dwellings in Town and Country* (New York: Harper & Bros., 1878) 22, 66-67.

62. *Ibid.*, 204. This is very possibly the argument that Wharton and Codman were responding to.

63. *Ibid.*, 66. Holly cleverly avoided the question whether art or nature is the more beautiful since the view as he described it was both, that is, a painting of nature.

function, which broke down many typological distinctions, character was a foundation in the nineteenth century for distinguishing one type from another; ideas regarding character addressed architecture's symbolic and evocative role directly and prior to technical matters. Goodnow wrote that, "in architecture the important thing is to express the *character* of a building. On looking at a building we should be able to say by its appearance to what purposes it is put." In all cases, the primary tool for expression of character was the relation between window and wall. "Nothing tends to express the character of the building so much as the treatment of the walls in relations to the openings in them."[64]

Houses in particular needed to express a kind of lyricism, Goodnow thought. This included a sense of "snugness" and uncontested privacy that was upset by excessive sheets of glass. For such a little thing, the muntin appeared to be a surprisingly significant precondition for the expression of domestic character:

> No one, however realistic, could conceive the possibility of poetic imagery lying in a double hung sash consisting of two huge sheets of plate glass!
>
> Architects should be also artists, and artists have such visions. If your architect insists on huge sheets of glass, instead of begging you to consider small panes, there is something wrong with him. I *know*.[65]

An article in *Brickbuilder* the same year maintained that big glass was appropriate for commercial applications but was entirely unsuited for homes. The author recalled a single row house in New York City where the original "sashes with very large panes" had recently been replaced with small ones. "The house so altered now possesses a character, individuality, and distinction which is

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64. Goodnow, *op.cit.*, 84. "Character" is addressed by Guadet as "the identity between the architectural impressions and the moral impressions of the program" in *Elements and Theories of Architecture* (1901) and excerpted in Leland Roth, ed. *America Builds* (New York: Harper, 1983). Sullivan thought character was the "artist-nature" and was the appropriate subject for architectural expression. The topic is ripe for restudy.

65. *Ibid.*, 88. Wharton and Codman made a similar point regarding poetry: "A large unbroken sheet of plate-glass interrupts the decorative scheme of the room, just as in verse, if the distances between the rhymes are so great that the ear cannot connect them, the continuity of sound is interrupted. Decoration must rhyme to the eye, and to do so must be subject to the limitations of the eye, as verse is subject to the limitations of the ear. Success in any art depends on a due regard for the limitations of the sense to which it appeals." Wharton and Codman, *op.cit.*, 66-67.

wholly lacking in the other houses." Large panes of glass, whatever the reasoning behind their use, the author was arguing, contributed to the decline of expression in architecture.[66] Conversely, many authors felt that small panes made a positive contribution to architectural character, lending a picturesque and decorative effect.[67]

Even when all other aspects were sound, an absent muntin could ruin the entire design. The architectural historian R.A. Briggs charged that "windows without bars certainly ruin many a well-designed House, spoiling, as they do, the scale of the House and its interior furnishings."[68] Windows without bars evoked machinery and the psychological distance of perfection. They recalled the workplace and the factory more than the intimacy and warmth that should characterize the domestic scene. Briggs quoted Christopher Hissey, author of several travelogues admiring of the English countryside, for a carefully worded snub at precision. "The mullioned windows also, with their many lattice panes, seemed to add to the snugness of the older chambers; for they gave one the feeling of enclosing space, whilst the modern plate glass window suggests to me but a glazed void; so perfect is plate glass that it might be solidified air."[69] Looking for

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66. Howard Bowen, "The Modern Use of Casement Windows," *Brickbuilder*, 23:5 (May 1914) 113, continues: "Large sheets of glass are, of course, of inestimable value for many uses. One can hardly imagine their not being used for certain windows of shops where the revealing of what may be placed within them is of prime consideration." Frederick Houston made a similar point, recalling a moment in home design at the turn of the century "when the ultimate in elegance was the largest expanse possible. Only in special instances, in houses, does the use of large sheets of glass seem the better method. In large buildings it is another matter. From the exterior the muntined sash gives scale and interest to what had previously been gaping holes in the wall." Houston., *op.cit.*, 86.

67. Muntins are the detail equivalent to the cottage, as discussed in George H. Ford, "Felicitous Space: The Cottage Controversy," *Nature and the Victorian Imagination*, U.C. Knoepflmacher and G.B. Tennyson, eds., (Berkeley: University of California Press, 1977) 29-48. Ford cites Ruskin from *Praeterita* (1885): "While I never to this day pass a lattice-windowed cottage without wishing to be its cottager, I never yet waw the castle which I envied its lord." Scale was usually a crucial issue: "Large sheets of glass never look well, and their tendency is to make the cottage appear much smaller than it really is. Large panes also detract from the cottage-like appearance that most people desire, besides being more costly to replace if broken." In J.H. Elder-Duncan, *Country Cottages and Week-end Homes* 3rd edition (London: Cassell & Co., 1912) 34-39. Elder-Duncan was the Educational Secretary of *Architectural Review*.

68. R.A. Briggs, *The Essentials of a Country House* (London: B.T. Batsford, 1911) 54.

69. *Ibid.* From Hissey's *Charm of the Road.* Conversely, when the view was not desirable, perfect plate glass failed to distort it. Even lace curtains might be powerless to diminish transparency. They "will do nothing . . . to shut out the unpleasantness beyond. I know of one instance where a lovely diningroom has been quite

character was one of the tasks for which visual tastes were trained in the nineteenth century. Unmullioned glass had a character then, but it was literally and figuratively a negative one. By creating a glazed void, the modern plate glass window had a hollowness at its heart. It could represent a non-human sphere of industrial refinement: the threat posed to the reflective interiorized self by mechanization and the perfect and perfectly transparent object. Taking the place of the barrier that by rights should have been sheltering the body and mind of the dweller, the modern plate glass window brought home the slowly growing feeling of self-dissolution before the juggernaut of industrialization.

The use of large windows was therefore an architectural category mistake, which is what linked it to the loss of domesticity. By distorting the perception of enclosure, large windows trifled with the firm boundaries believed to be indispensable to the sense of domestic security. As Goodnow articulated it: "Somehow we associate our ideas of home with a certain snugness, a certain security. It is this quality which makes the difference in character between a public building and a home. . . . This feeling vanishes for most of us, if we try to imagine such a scene in a house which is all windows." The demand for larger windows and larger expanses of glass militated against the "sense of hominess, the sense of privacy."[70] At least since the rise of privacy as a middle-class value, walls had been supposed to protect it. This was essential certainly if physical comfort would be respected. But walls were equally important for the demarcation of a territory and a sphere of intimacy. Opening them wide with windows might make sense when they opened only to a landscape, but certainly not when they exposed the interior to casual passersby. Appearing in the home and in such stark contrast to what had come before, wide openings dramatized the sense of lost autonomy and diminished privacy that was troubling citizens in other spheres as well.

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spoiled by a window drapery so thin that the opposite fire-escape, with its inevitable litter of prohibited things, is made to seem part of the interior, so intimately is every detail brought to those about the table. In this case plate glass has been used." This was a shortcoming, wrote Lillie Hamilton French, of both "ready-made houses" and "houses of wealth and importance" where owners might have been expected to exercise good taste. Lillie Hamilton French, *The House Dignified, Its Design, Its Arrangement And Its Decoration* (New York: G.P. Putnam's Sons, 1908) 114.

70. Goodnow, *op.cit.* 84, 89. Baille Scott thought big glass made domestic architecture impossible. In "Fenster," *Houses and Gardens* Deutsche Ausgabe (Berlin: Wasmuth, 1912) 35.

Interior space seemed to burst from the home's large openings, emptying as it did nearly all privacy.

Paradoxically, the demand for big glass seemed to be coming from clients, who appeared those with the most to lose. "Where there is a fine prospect, windows made of a single plate of glass are often preferred," Wharton and Codman conceded just prior to making their argument against single sheets of glass.[71] With the muntin's removal stemming from client requests, architects were being frustrated by the very ones on whose behalf they were working. In this way, unmuntined windows posed a threat as well to professional authority, which helps explain the passionate defense of what had formerly been a slight architectural detail. Although the rise of a middle-class clientele had spurred the professionalization of architecture, it also brought with it clients untutored in architectural civilities; many of them were ready to dispense with key architectural concepts like scale and expressiveness and cast aside concepts like proportion and the balanced contrast of solid and void. While architects found that clients exercised their bad taste in a variety of ways, exaggeration of the importance of view was a recurrent complaint. Judging from architects' grousings on the subject, clients could be expected to insist on a design that optimized the view, either through larger windows or imprudent orientation, however much havoc it wreaked with architectural proportions. This situation was only aggravated by the fact that with the increasing separation between work and home, many clients for houses were women, while the architectural profession remained steadfastly a male enterprise. A gender gap doubled whatever problems had already been created by a taste gap, which as often as not hid a class gap, all of which was registered by the simple little muntin.

R.A. Briggs, for instance, addressed his comments in *The Essentials of a Country House* to "dear madam." By taking the time to educate herself on matters of design, before speaking with her architect, the female client would "preclude many wearisome conversations," which often began with uninformed opinion. The "intelligent people" for whom the book was written would undoubtedly accede to this objective. The book begins with a gruff rejection of several pervasive

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71. Wharton and Codman, *op.cit.*, 66.

but nonetheless "fallacious legends." Prominent among them is the belief that muntins might easily be done without. "From the artistic point," sniffed Briggs, "there is *no question*. Leaded lights or windows with bars are a *sine quâ non*."[72] Briggs's argument by embarrassment was that clients should avoid tiring out their architects with matters that were obvious to anyone with simple good sense. Even Wharton and Codman, who were typically respectful of their readers' intellectual abilities, concluded their discussion of muntins with the observation that "the French"--the tastemakers in the field of architecture and interior design and "always logical in such matters"--had since the eighteenth century experimented with the use of large expanses of plate-glass; now they regularly renovated windows back to the smaller panes. They assured themselves that large windows were just a passing fad that had temporarily obscured more permanent design values. "Now that large plate-glass windows have ceased to be a novelty, it will perhaps be recognized that the old window with subdivided panes had certain artistic and practical merits that have of late been disregarded."[73] The certain message was that technological change in the quality and clarity of glass should not cloud aesthetic principles.

As the fad showed no sign of abating, some writers began to address the muntin's effect on the view more directly. Some argued that it had no effect whatsoever. Over time, one simply became accustomed to muntins and eventually stopped seeing them. "From the inside, looking out, even though the view be a fine one, the cross bars or muntins do not wreck the picture. We are generally unconscious of the interposition of the sash and the view beyond." wrote Houston.[74] More laconically, Goodnow wrote that even with muntins on the windows and curtains over both, "we can see enough."[75] The stronger claim made in this line of reasoning was that the vanishing muntins would actually improve the view. In 1904 the poet Charles Keeler agreed that interior lighting would be improved by massing windows in a horizontal band. This was not, however,

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72. Briggs, *op.cit.*, 3, 54. If Briggs truly believed that the *nouveaux riches* clientele would have little taste or refinement to which to appeal, then derision might have well been a rational form of argument.

73. Wharton and Codman, *op.cit.*, 66-68.

74. Houston, *op.cit.*, 86.

75. Goodnow, *op.cit.*, 91.

license to subordinate pattern and form to large windows: "leaded glass, when it can be afforded, not only lends decorative effect to the house, but also breaks up the view in a charming manner."[76]

Briggs went even further, claiming that rather than subtracting from the view, the grid of muntins multiplied it. "But with most views, bars to the windows improve the view, as you have a series of pictures in each window." While the argument appears, from a post-modern perspective, uncharacteristically sympathetic to notions of serial production and the leveling of aesthetic effects, he nevertheless touched upon a crucial point. The framing of a view was the activity that aestheticized nature into landscape in the first place; increasing opportunities for the exercise of one's compositional abilities could only be for the good. By insisting on large windows, homeowners were trading an aesthetic activity for what might be called the content of the view, that is, an image of nature. Large windows did indeed bring views deeper inside house but they also naturalized them. A natural view came to be taken for granted, as the term "landscape window" seems to indicate. Also, having so powerful an indication of nature inside diminished the need to go outside.[77] The actual composing of the view was far less of a concern than having the proper ingredients, which by the turn-of-the-century included a large sheet of glass. Briggs and others were disturbed because views were increasingly treated as a backdrop rather than an exercise in refined taste. It was in this way that the muntinless window could represent a challenge to aesthetic authority.

Frank Lloyd Wright's cousin and client Richard Lloyd Jones questioned Wright's use of masonry block construction for his house in Hollywood. [Figs. 3.22-3.23] He complained to Wright that the building "limits the outlook of every room" and asked his cousin for "windows out of which we could get panoramic pictures." He explained his reasoning with a statement of principle: "I will sacrifice art gladly for the joy of seeing out of doors." Wright replied that the house was oriented not to all views but to "the most important view." He further noted that with its block

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76. Charles Keeler, *The Simple Home* [1904] (Santa Barbara: Peregrine Smith, 1979) 29.

77. This was a complaint early in the century and became a basis for praise by the middle of the century.

piers the "livingroom wall becomes a window with vertical mullions." Wright was reluctant, he wrote to Jones, to design a house with just "a lot of broad windows."[78] He was unwilling to give up the expressive possibilities of the mullion; elimination was not a Wrightian idea. Only the year before, Wright had conceived of the divisions between panes of glass as an instrument of architectural articulation: "The metal divisions become a metal screen of any pattern ... the glass a subordinate, rhythmical accent of any emotional significance whatever, or vice versa. The pattern may be calculated with reference to the scale of the interior and the scheme of decoration given by, or kept by, the motif of the glass pattern." Wright was willing to do away with supporting mullions but only when it served some other and architectural concept, as at the Freeman house where corner muntins emphasize the opening of the space and the absence of structure. [Fig. 3.24] For Wright the muntin was less a stylistic vestige than a design opportunity. Having the technical possibility of doing without muntins did not compel him to undertake it.[79]

For quite a few architects then, a rigid insistence on maximum transparency to the view was evidence enough of their clients' blindness, which led them to confuse the most fundamental architectural distinction, the difference between inside and outside. Though separated only by a wall, these were two entirely different kingdoms. Giving up this distinction was tantamount to abandoning architecture altogether. Briggs had imagined architecture's undoing would indeed look very much like a wall of glass:

> Why cry against the bars in sash windows? Why? The reason usually is--'Oh! they spoil the view.' If the bars spoil the view, then the window--or rather the walls all round the window--spoil the view. Therefore, if you must see the view in full, you must have either a glass front to your House, or you should go outside.[80]

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78. Cited in Robert Sweeney, *Wright in Hollywood. Visions of a New Architecture* (New York: Architectural History Foundation and MIT Press, 1994) 183-87. My thanks to Neil Levine for this reference.

79. "In the Nature of Materials: Glass," *Architectural Record* (July 1928) 420. Alternation of structure or muntin with opening explains in some way Scully's sense of "pressure and release" in Wright's work in his "Archetype and Order in Recent American Architecture," 255-56.

80. Briggs, *op.cit.*, 54.

A wall of glass was both the logical outcome of insistence on the view and manifestly ridiculous, subverting as it did so many principles of fine planning, good taste, and circumspect manner. The preposterousness that such an inversion of sound values might even be entertained seemingly justified Briggs's tone of haughty derision. A fleeting thought that such a thing might actually come to pass perhaps accounts for his underlying note of anxiety. After all, Briggs's irony regarding glass fronts would in just a few years be architectural orthodoxy. His mocking tone reveals that before the wall of glass was a modernist utopia it was a Victorian nightmare.

By the 1930's it looked as if the muntin dispute had finally ended. Designers in the modernist mode were nothing if not polemical and would suffer no compromise like the landscape window. More than mere technical refinements, large and sheer sheets of glass were portrayed as the latest phase of a historical trajectory that was not yet apparent to all.

> When it [glass] first came into use it was restricted to small panes because there was no known way of making large ones. Today our factories turn out glass sheets of prodigious size and then promptly cut them up into little panes for no better reason than that the fact that they have always done so. Since windows are designed to let light in and to permit clear vision, this procedure appears to be one which might possibly be questioned.[81]

By way of contrast, small panes and the divisions between them were linked by the onward march of history to a faded time of unthinking convention and economic waste. Any vestigial sentiment for the muntin was therefore an affront to technological progress and a sign of a virtually barbaric outlook. Far from being an isolated case, Walter Curt Behrendt in 1937 thought that modern architects were often too insistent on this point: "In many a modern house the use of glass seems to be taken as a point of honor, as an article of faith, so to speak, the credo being to enlarge the area of the window openings to the utmost. Such exaggerations grow only from the wish to revel

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81. "Glass" (December 1935) *op.cit.* 612. The argument was repeated with great regularity from Le Corubiser in 1930--"*Plate glass* replaces window panes."--to Baker and Funaro in 1948--"When glass was high-cost and low-quality, giving a distored view even in small pieces, then the small-paned window was reasonable. Its use today is pure affectation, an aeshtetic tradition without structural reason for being." In *The Studio Year Book on Decorative Art* (London, 1930) and cited in Max Risselada, ed. *Raumplan versus Plan Libre* (New York: Rizzoli, 1988) 146 and Geoffrey Baker and Bruno Funaro, *Windows in Modern Architecture* (New York: Architectural Book Publishing, 1948) 14.

in technical novelties, and to boast of the charm of new materials."[82] Behrendt felt that architects were unwittingly overextending the use of big glass in a misplaced pursuit of contemporaneity. The compulsion to remain parallel with technological change, he thought, had its limits.

At the very least, the progressive register, within which the use of big glass was a valid modern pursuit, began to weaken. The technical novelty of large openings was wearing thin by the end of the 1930's, not least because they had been possible in mass-produced wood-frame home construction since the advent of the balloon-frame in the 1840's. While openings remained as large as ever in modern houses, which were gradually gaining acceptance, the basis on which those openings were legitimated shifted back to the provision of views. At the moment that International Style modernism was introduced, furnishing an unobstructed view was a secondary argument made in favor of the mullionless window. Within a fairly short time it came to eclipse technical legitimations.[83]

Nothing could illustrate this more vividly than a comment that appeared in Raymond McGrath and A.C. Frost's authoritative 1937 history of *Glass in Architecture and Decoration*. The authors mentioned none other than Humphrey Repton for his thoughts on the ill-fated muntin.[84] Repton was cast here as an avatar of modern architecture for having imagined the muntinless window before it was technically feasible. Windows in the past had been divided due to structural needs while modern windows formed a single "complete unit," as McGrath wrote in an earlier

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82. Behrendt, *Modern Building* (1937) and cited in Baker and Funaro, *op.cit.* Mumford made a similar point: "The modern designer, believing that glass is the one veritably modern material, has tended to equate the degree of his modernity with the number of square feet of glass he provides . . . the American planner will have, I am afraid, to give up his opaque passion of the transparent wall and go back to the alternation of solid and void" that Mumford found typical in Japanese architecture. "Windows and Gardens," [1954] *From the Ground Up* (New York: Harvest, 1956) 184-85.

83. "Flexibility" was also used to justify large fixed windows since they would not preclude one from choosing to look out or to draw the curtain, although one might question why being able to open and close one's windows was a sort of flexibility not worth defending. For an example of "extreme flexibility," see Robert Davidson, "Possibilites in Postwar Techniques," *Architectural Record* (May 1945) 87.

84. McGrath and Frost, *op.cit.*, p.150 and pp. 104-05 regarding the Repton on landscape practice.

book.[85] By citing Repton, McGrath and Frost leapt back over the technical rationalizations of large windows to recover the earlier landscape logic behind them. In so doing, they explicitly appended a modernist chapter to the muntin dispute.

As discussed above, the muntinless window was not well-liked by most Victorian observers. It nullified the character of a residence, which should have been not only present but salient. If anything, the blank sheet of glass--as "a glazed void" or "solidified air"--represented the absence of character, even the absence of "architecture." In distinct and direct contrast to this, a large expanse of unmuntined window carried for modernism an entirely positive tone. For a time, the embrace of large areas of glass was founded on what they represented in the historical progress of construction; big glass was legitimate because it told a truth about architecture and the industrialized technical processes on which building was based. In this way, the rejection of "character" as it related to the window was premised on the expression of these construction technologies. The glazed void could thus be read not as the loss of domestic character but as the shape of technical dexterity.[86]

With the decline of technical rationalizations and the acceptance of unobstructed views as the primary rationale for big windows however, legitimation moved out into the landscape. The "glazed void" of the wall could become a positive term rather than a feared one because it facilitated a new way of dwelling that involved access to nature. Expression of "dwelling" no longer inhered in the familiar forms of a house or the comforting sense of enclosure that the

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85. Raymond McGrath, *Twentieth-Century Houses* (London: Faber & Faber, 1934) 34.

86. Colin Rowe describes modernism's rejection of "character" in his essay "Character and Composition; or Some Vicissitudes of Architectural Vocabulary in the Nineteenth Century." (In *The Mathematics of the Ideal Villa and Other Essays* [1953-54] (Cambridge, MA: MIT Press, 1976) 59-88.): "Character is seldom, if ever, defined, but it is generally implied that it may be at once the impression of artistic individuality and the expression, either symbolic or functional, of the purpose for which the building was constructed."; "In any final analysis of its theory, modern architecture seems to rest upon a conviction that authentic architectural form can only be engendered by recognizing the disciplines which function and structure impose." My claim here is simply that the issue of character did not go away altogether; while architecture could no longer create character, it could lead to it.

muntin once protected. Instead, the representative form of a modern conception of dwelling was an open and friendly relation to landscape.

In the modernist dialectic of material presence and absence, which usually goes under the name of dematerialization, the visual absence of enclosure signified the presence of an object that was itself technologically refined. With an emphasis on the view as an immediate relation to landscape, the visual absence of enclosure signified the presence of the outdoors or nature. Stated another way, the dematerialization of the fabric of the house triggered the materialization of the landscape within the house. Although the presence of nature was not absent from architectural writings in the 1920's, it was not given the theoretical importance it would later gain in the discourse of the view, however diffuse that discourse may have been. "Character," in the nineteenth-century sense of the term was not, as it turns out, replaced by either technical or functional expression; it was, rather, displaced to the outdoors.

The view, in other words, expressed the modern form of domestic character: it was evidence of a natural orientation; it visibly registered physical distance from work; it provided therapeutic opportunities for those made anxious in the city or otherwise in need of psychic calm; and it was purchased, that is to say, its aesthetic and therapeutic benefits came at a price determined by the market, just as other goods formerly home-made were replaced by manufactured goods. Being cozily ensconced in the private realm of one's four walls was no longer the measure taken of feelings of domesticity. The modern flavor of domestic bliss was openness to a landscape, where even slight impediments to viewing were thought to disturb the viewer's newly intimate relationship with the outdoors, analogous in this way to having round the family fireside an uninvited and uncommunicative stranger. The rapid and giddy popularity attained by the picture window after its introduction was due to its promise that nothing ever would disturb that relationship: picture and window were one and no more could anything come between them. The continuing bitterness over its failure to live up to that promise testifies to how important that fantasy was.

Chapter 4: The Production of Spaciousness

> I was born an American child of the ground and of space, welcoming spaciousness as a modern human need as well as learning to see it as the natural human opportunity.
>
> Frank Lloyd Wright, 1954[1]

> *The concept of space is not in space.*
>
> Henri Lefebvre, 1974[2]

Wright and Lefebvre, each in his own way, both realized that spatial ideas are learned. Spaciousness, that is, the *sense* of space, also appears not only to have been learned but taught, and rather enthusiastically at that. Along with "intimacy with nature," it was the most widespread and persistent merit of a view. Architects in the 1950's lost few opportunities to explain how this was so: with transparent walls, indoors appeared to extend well beyond the actual enclosure. While they would employ various means to create or enhance a sense of space, no single feature was more effective or desirable than a broad landscape beyond a glass wall. Glass wall and attendant view became pivotal to the entire set of architectural strategies that fostered spaciousness, one of the most frequently sought-after effects in residential design at the time and certainly its most immaterial.

The concern for spaciousness was especially prevalent in discussions of the small house, where space was at a premium. The small house was an economic reality for many middle-class Americans in the twentieth century and a *cause célèbre* for many architects.[3] From the start, the small house was limited, in fact, defined by the requirement that it be widely affordable, a

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1. In *The Natural House* (New York: Horizon, 1954) 16-17.

2. In *The Production of Space*, [1974] (London: Basil Blackwell, 1991) 299.

3. "The small home is one of the architect's greatest obligations to society," wrote R.L. Dufus in "The Architect in a Modern World," *Architectural Record* 80:3 (September 1936) 184; The problem of the small house is "not only America's major architectural problem but the problem most difficult for her major architects" and the reason for his Usonian project, Wright said in *Architectural Forum* (January 1938) 78-79. The Depression heightened the rhetoric only a little. The small house was becoming generally accepted as the ideal form of middle-class housing and a foundation for conceptions of self and country: "Never before has the small house played such an important part in the nation's economic and social life." *Architectural Forum* (November 1948).

requirement that often resulted in shoddy construction or mean design. Many architects aspired, however, despite the budgetary constraints, to provide a measure of dignity for these homes. They worked hard to bring the type into line with current architectural values, to go beyond what was often regarded as "mere shelter," but without affecting costs adversely. This was pursued in a number of ways but was often cast in terms of spaciousness, that is, "an impression of airy space far beyond its actual dimensions," as *House and Garden* said of one Breuer house. Especially with a nice view, literally hundreds of articles argued, one could possess "the feeling of space ... without adding the actual space."[4] With no small pleasure in the apparent contradiction, houses by the 1950's were often said to be "both roomier and smaller than houses used to be."[5] Contemporary debates surrounding the small house thus contained a measure of ambiguity that helps explain, in addition to the arguments for social responsibility, the persistent appeal that the type held for architects. It was seen as a practical ideal, a domestic dream made real by middle-class prosperity. It constituted, as one critic put it, a "limited dream."[6] A sense of spreading space thus came to be widely and routinely promulgated by architects as a middle-class downpayment on affluence.

Though an overstatement of the historical record, the creation of interior spaciousness was usually considered an invention of the modern movement in architecture and associated with its other innovations. "Like even, ample light," claimed Elizabeth Mock in one of the series of widely recognized publications on modern design issued by New York's Museum of Modern Art, "the illusion of space is a new and wonderful possiblity in domestic architecture."[7] As for the small house, Mock asserted, Americans had better just get used to it; it was simply an economic reality that middle-class status would not buy you a truly large house. Not to worry, she consoled her readers. An architect, that is, a modern architect could remove the stigma inconveniently

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4. *House and Garden* (February 1947) 48-50.

5. *House and Garden* (August 1947) 16.

6. A.C. Spectorsky's term for exurbia in general, in *The Exurbanites*, (1955), and cited in William Dobriner, *Class in Suburbia*. (Englewood Cliffs, NJ: Prentice-Hall, 1963) 73.

7. *If You Want to Build a House* (New York: MOMA, 1946) 34.

attached to the economic middle ground because, "only the modern architect is ... *free* to give you at least a feeling of spaciousness if the actuality is unattainable. *Only in modern architecture is any serious attention given to the peculiar problems of the small house.*"[8] For most observers, it seems, the "unique quality of spaciousness and kinship with the out-of-doors" was uniquely modern.[9] Consequently, the visual evocation of space became a primary goal of residential design, whether for new construction or for updating older homes. The frontispiece to Samuel Paul and Robert Stone's 1953 *Complete Book of Home Modernizing* featured a wall made of backyard and sky, accompanied by the sunny caption: "An entire weather-proof glass wall floods this room with cheerful light, makes it as big as the view."[10] [Fig. 4.1] For a number of years, then, in the middle of the twentieth century, of the modern small house's several "fundamental themes," the first and most consistent was "compactness with the illusion of spaciousness," and, by a logic already well-established, "the compact extra-space means lots of glass" to bring the outdoors indoors.[11]

This particular version of spaciousness, though a commonplace nowadays, is relatively new. The Picturesque landscape, for example, was littered with the term but it usually required a large scope of land to earn it. The *Oxford English Dictionary* likewise finds the term "spacious" used since the late-fourteenth century to denote "vast, large, or indefinite" extent regarding exterior spaces and, regarding interiors, "having or affording ample space or room; large, roomy, commodious." Other definitions apply to objects with extended surfaces or to human traits, like intelligence, "characterized by greatness, breadth, or comprehensiveness." The term describes, in other words, a range of phenomena that actually are capacious or extended, relative to similar phenomena. This is remarkably explicit in uses cited for the substantive, "spaciousness." The *OED* allows that the term defines "the state or quality of being wide" but a supporting citation

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8. *Ibid.*,17.

9. *Architectural Forum* (November 1948) 140.

10. Samuel Paul and Robert Stone, *The Complete Book of Home Modernizing* (New York: H.S. Stuttman, 1953).

11. Carl Biemiller, "Garden Homes in the Golden Land," *Holiday* (September 1951) 102.

from a well-known tract on house design finds, "somewhat opposed to spaciousness . . . is the exquisite quality of compactness."[12] However charming, the author makes clear that "compactness" has a character contrary to that of "spaciousness." In general, then, "spacious" has been consistently used not simply as a perception of extent but as a judgement of it as well. A perception of spaciousness implied the presence of space, in physical terms, or of great capacity, in other ways.[13] The visual perception of space, despite its absence by other measures, is a sense of "spacious" the *OED* has yet to chart.

Historical Spaciousness

> It is natural that some of the most significant aspects of the new architecture should be found in the smallest cottages.
> Vincent Scully, 1955[14]

While Downing had by 1842 already shown explicit and extended concern for homes serving all classes of citizen, a widespread acceptance of the small house was not evident until the 1890's, when, as Gwendolyn Wright puts it, "there occurred a sudden and dramatic change in the outward appearance of the average American dwelling, in the technology that equipped it, and its formal relations to its neighbors. ... a shift toward smaller, much simpler houses."[15] The shift was related to a number of factors: manufacturing and distribution advances, continuing efforts by builders and developers to minimize costs and broaden markets, a reaction to the earlier gilded Victorian taste, and a growing appetite for the new mechanical systems and domestic equipment, which, as

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12. *Oxford English Dictionary*, online version. Citation is from Robert Kerr, *The Gentleman's House* [1864] (New York: Johnson Reprint, 1972) 75.

13. Shakespeare, playing precisely with both of these senses of the term, pointed out that one does not imply the other. Hamlet, (V, ii.), describing the courtier Osric to Horatio, thought there was little to recommend him but his estate. He was, Hamlet said, "spacious in the possession of dirt."

14. In *The Shingle Style*, (New Haven: Yale University Press, 1955) 88.

15. See, for example, "Design V" in *Cottage Residences* (1842) and "Labourer's Cottage," in *Country Houses* (1850). Gwendolyn Wright, *Moralism and the Model House*, Chicago: University of Chicago Press, 1980, 231. Richard Etlin notes that the small house becomes a valid object of aesthetic thought only in the eighteenth century in *Frank Lloyd Wright and Le Corbusier. The Romantic Legacy* (Manchester: Manchester University Press, 1994) 76.

they became standard features, took up a larger and larger chunk of the house's cubic footage and construction and operating budgets. In addition, simpler and smaller homes were praised for the ease with which they might be cleaned, a factor which served hygienic concerns and, in theory, liberated women from much of the burden of housework.[16] By the turn of the century, regular columns appeared in shelter magazines discussing this important change in a national form of housing and its implications for the single-family house's connotations of morality.[17]

To keep the house workable despite the loss in size, rooms which had been dedicated to a single purpose were eliminated and the varied but now roomless functions combined within a single room. These new multi-functional rooms were by themselves relatively large and often featured generous openings to other parts of the house. Even the promotion of hygienic concerns displaced attention from the absolute size of a house to its role in sustaining good health and to what would come to be called its "livability." Thus, Wright concludes, "with fewer walls, houses could still seem spacious, even if they were, in fact, growing smaller." Alan Gowans similarly remarks that: "Successful mass-producible suburban house design depended upon creating illusions of a spacious lot no matter how cramped the actual one might be." David Handlin, too, notes increasingly ambiguous relations between rooms fostered through the use of sliding doors, screens, and portieres, as well as a steadily blurring separation between inside and out.[18] Though

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16. Wright, *Building the Dream*, (Cambridge, MA: MIT Press, 1981) 159. Ruth Schwartz Cowan has demonstrated the discrepancies between these optimistic ideals as they persisted through the century and actual measurements of women's work in *More Work for Mother. The Ironies of Household Technology from the Open Hearth to the Microwave* (New York: Basic Books, 1993).

17. By the 1920s, the significance of the small house was taken up by Herbert Hoover, who, as Secretary of Commerce, brought out a book on the matter and espoused the work of the Better Homes Committee. While the New Deal's Federal Housing Authority would further institute the issue, the small house was already well-established as a national form of housing much earlier through cottage competitions in *American Architect* starting in 1878, mail-order housing kits, a growing number of popular magazines dedicated to the subject, as well as through books on advice for families, which were typically associated with single-family houses.

18. Wright, *Ibid.* 246. Gowans, *The Comfortable House*,(Cambridge, MA: MIT Press, 1986) 31. Handlin, *The American Home*, 1979, 344-48. Handlin goes on to discuss the openness of late-nineteenth century homes in terms of a response to what were seen as fragmenting tendencies of industrializing society and to a revival of what was thought to be a colonial spatial relation, pp.352-4. In regard to the latter, see also, Scully, *op. cit.* 27-30.

a sense of spaciousness--despite diminished dimensions--certainly was important in the late-nineteenth century for the success of the small house type, its formulation in contemporary architectural discourse remained sporadic, its discovery a by-product of other concerns, and its discrete pursuit typically lackluster.

Housing reformers were happy to recognize the spaciousness or "roominess" that could result from the elimination of superfluous ornament, the reduction of interior walls, the widening of openings and the joining of formerly discrete rooms to create larger ones. But such tendencies were evident much earlier in the very largest houses dating from the 1870's and thus can not be said to be a product of the small house designer's search for spaciousness.[19] Even at the turn of the century, the term "spacious" was generally reserved for distinctly large houses.[20] Nothing at the time produced the *sense* of abundant space in one's home as much as abundant space.

This is not to say, however, that such effects were not welcome in the small house once they were noticed. Mariana Griswold Van Rensselaer, for instance, thought Richardson's house for Rev. Percy Browne in Marion, MA, completed by 1882, was "typical" of those qualites "which the American owner so often craves--artistic treatment combined with cheapness, comfort with small dimensions, beauty with simplicity, refinement without decoration." In this, "one of the smallest structures that Richardson ever built," comfort and artistry were mostly at risk. Still, she registered both surprise and delight at its spacious feeling:

> Inside, the planning gives an unexpected amount of comfort and air of space. The doorways are very wide, and are so arranged as to afford a diagonal instead of a straight

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19. Vincent Scully, in *The Shingle Style* describes H.H. Richardson's "innovations in domestic design in America: a new sense of open interior space and a new feeling for the surface as enclosing that space." Scully illustrates this point with Richardson's 1868-69 project for the Codman House, a project that was intended to replace a smaller house and was not built because it would have taken twice the client's budget, p.9. See also, Jeffrey Ochsner, *H.H. Richarson. Complete Architectural Works*, (Cambridge, MA: MIT Press, 1989) 56.

20. Earlier, when Downing thought a room spacious, it too was generally the result of an additional space: a protruding bay, a deep porch, or a generous sloped ceiling as, for example, with a design by Alexander Jackson Davis for a "Gothic Style" bedroom, in *The Architecture of Country Houses*, 385-6.

> perspective. The windows are carefully placed to command every possible outlook. . . . The longer one studies this little house the better one likes it.[21]

In his book, published in 1955, dedicated to the history of the "new sense of open interior space," Vincent Scully cites one example of spaciousness in small places and it, too, was observed with some surprise. J. Cleveland Cady described to an 1877 A.I.A. convention his fascination with a New Jersey Dutch farmhouse interior: "We realize that [these rooms] are not large, yet they seem extremely spacious." He detailed how this was so, citing the low ceilings, diminutive trim, and a generous fireplace. Scully finds Cady's sensitivity unusual, even "prophetic of later attitudes": "He looks for the reason behind each feature, not only as it reflects a specific functional requirement but also as it affects the over-all experience of space."[22] The sense of surprise and curiousity in both cases seems to confirm further the nineteenth-century affinity between size and spaciousness, not to mention the fact that the sense of space was discovered rather than specifically pursued.

The most explicit discussion of spaciousness, to my knowledge, occurs in Robert Kerr's book, *The Gentleman's House*, from 1864. Here, as noted above, spaciousness is "opposed to" compactness, though "only in appearance and by way of contrast" since the best architects will find a way to achieve both. Compactness, for Kerr, was a matter of the efficient arrangement of rooms or simplified "communication" between them while spaciousness was a dimensional effect. Though reconcilable, they were qualities often in competition. Kerr's general principle of resolution was to consolidate spaces: "Between a larger number of rooms of questionable size, and a smaller number whose amplitude of space shall be beyond controversy, choose, if it be by any means possible, the latter." Even in the direst cases, though, "there is always one remedy": "let a room or two be thrown off,--it is better to be maimed in part than marred in all," Kerr philosophized. He advised architects to take heart since this solution will be "unpalatable to his

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21. *Henry Hobson Richardson and His Works* [1888] (New York: Dover, 1969) 105-106.

22. Scully, *op. cit.* 48-9. The shift from a concern for utilitarian matters to an interest in space and volume constitutes, for Scully, the key aesthetic difference between the earlier Stick Style and the later Shingle Style.

client" only at first. Otherwise, the absence of spaciousness would entail even greater psychic stress resulting in in fearful and nervous behaviors and loss of "self-esteem": "the sense of contractedness is positively oppressive."[23] Still, Kerr makes no mention of visual spaciousness, let alone a sense of interior space borrowed from the outdoors. Indeed, his concept of "amplitude of space" seems distinctly proposed as a physical measure of magnitude, although the consequences are mental.

Judicious use of color, however, was generally thought to enhance the perception of whatever amount of space happened to be at hand. Downing himself had addressed issues of color in the house but primarily in terms of the advantages of the natural colors of unpainted materials. He did appreciate color's contribution to the sense of space, thinking that a gradation of light to dark from ceiling to floor will produce "the best effect in rooms of small size (or, indeed, of any size)." He focused far less, however, on the perceptual effects of color than the color scheme's suitability for the style of the house, the nature of the materials, and the standing of the occupants.[24]

Later in the century, visual expansion of the interior through color was more often advised, especially as work in perceptual psychology began to draw increasing attention. Claiming in 1878, for example, that "actual experiment" stood behind his thinking, Henry Hudson Holly advocated the careful use of the color blue, in niches for instance, since it "produces the effect of distance." For Holly, empirical science itself was only recapitulating nature since the same understanding of color was evident in the work of "the Great Architect," where blue was an ingredient of atmospheric perspective.[25] By the turn of the century, designers regularly discussed color's effects on the perception of space. Keeping colors uniform to emphasize any large surfaces, for instance, could contribute to a changed perception of the space: "A much more

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23. Kerr, *op.cit.*, 74-77.

24. Downing, *op. cit*, 372. As Scully points out, Downing's most extended discussion of color comes under the category of "truthfulness." Scully, *op. cit.*, xxxiii.

25. Holly, *Modern Dwellings in Town and Country*. (New York: Harper and Bros., 1878) 159-162. Holly also recognized the possibility of creating indoors "certain perspective effects."

spacious effect is gained in a house of moderate size by keeping to one color or prevailing tone throughout the living room floor."[26] Varying colors, on the other hand, might lend, as J.B. Jackson puts it, "the illusion of spatial variety," which might offset the reality of spatial monotony.[27] In any case, the clever use of color was often proposed as a strategy for producing a sense of increased size or variety in those homes most lacking in either.

Nor was it unusual to read that retaining "the longest lines of view" across one's lawn "increases the much-to-be-desired breadth of the place."[28] But discussions of the view's creation of spaciousness were generally related directly to questions of gardening and landscape design. As such, they usually entailed estates larger than those surrounding the small house. A century earlier, English landscape gardeners based their entire art upon a range of visual effects, many of which were explicitly theorized. Effects of perspective were then appreciated for their ability to alter judgements of landscape extent. Holly told his readers, for instance, that the early-nineteenth-century landscape gardener J.C. Loudon had suggested the use of a small breed of cattle to make the meadow in which they grazed appear that much larger. Others employed the *coulisse* or other foreground objects or frames to deepen, by contrast, a distant view. Deferred vistas, by heightening anticipation, it was believed, could do the same. The common practice of concealing borders was also a conceit to envisage a realm even larger than considerable wealth had already bought. "A view of paling" or other fencing, thought William Gilpin, "is in general disgusting," in part, at least, because it destroyed this illusion. For all their attention to perception, then, landscape gardeners, architects, and poets, too, assumed their perceptions bore some relation to the objects perceived. Gilpin, who may have been the Picturesque author best known in the United States, remarked in fact that "grandeur is rarely produced" when its raw

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26. "Beauty Indoors," *Indoors and Out. A monthly magazine devoted to the beautifying of America chiefly by means of architecture and the arts allied to it.* III:1 Boston: Rogers and Wise, (October 1906) 49.

27. In "The Craftsman Style," *VIA* (1975) 61, and said in regard to worker's houses of the 1920's.

28. Samuel Parsons, Jr. "Small Country Places" in Russell Sturgis, et. al. *Homes in City and Country* (New York: Scribner's, 1893) 143-4.

materials are not at hand.[29] When landscape views were discussed in relation to the home, it was nearly always in picturesque terms. It would be exceptional to find them as qualifiers of interior space.[30] In a small country house, a glimpse of a colorful flower bed, some greenery or a swath of sky could all confirm the "country" qualifier. For most observers, though, the sensation of large spaces inside demanded large inside spaces.

Downing had suspected as much. He anticipated that home owners in the new "rural villages" could find themselves dissatisfied with only "fifty-foot lots." If so, they "may buy two lots," although, he realized, this would likely still not satisfy.[31] In 1870 and probably for the first time, Frank Jessup Scott accepted and worked within the parameters of the small lot. [Figs. 4.2-4.3] Growing but still limited middle-class wealth needed, he felt, standards for home design and models for domestic consumption, readily available in the aesthetic norms of the upper class. Scott sought something sumptuous for the small house and found it, he thought, just outside in the landscape. He argued that small homes and small lots should be diminutive reproductions of larger ones, or, as he put it, "gems of home beauty on a small scale." This meant that somehow an impression of an estate should be part of the setting. He proposed, then, an unbuilt "belt of lawn," crossing as many individual front yards as possible and governed by uniform setbacks, limitations on plantings and, in the ideal case, fenceless. A sweep of lawn would give "a genteel air to the neighborhood that five times the expenditure in buildings would fail to produce." A stretch of landscape would be an "elegant effect" that would elevate the station of the houses and "add thousands of dollars to their saleable value." Further, the proposed visual effect would have an influence beneficial to the whole community. By creating an effect of wealth, that is, a scale of

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29. Cited in John Dixon Hunt and Peter Wallis, eds., *The Genius of the Place*, 340. On Gilpin, see Hans Huth, *Nature and the American. Three Centuries of Changing Attitudes* (Berkeley, University of California Press, 1957) 12.

30. Kerr, for example, wrote, "If the question here involved be put in scientific form, it is simply this: given a certain landscape, and the point from which it is to be viewed; then how to turn it to best advantage? The first thing is to comprehend the varieties of *chiaro scuro* . . . the varieties of atmospheric effect also may be taken into account as governed by the prevailing weather." *op. cit.*. 83.

31. "Our Country Villages," on the poor state of planning for suburban settlements, In *Rural Essays*, [1853] (New York: Da Capo, 1974) 240.

landscape formerly associated with larger estates, a belt of lawn "serves by this fact alone to attract a class of refined people of small means," who, nevertheless, had big ambitions.[32] Though limited financially, refined people would recognize in the vision of a larger property the class aesthetics to which they aspired.

When Scott wrote, the language of house design had yet to coalesce around the notion of spaciousness. Attaining his elegant effect still required joining together smaller lots and, at least visually, presenting a large one. An effect of spaciousness still required space.[33] His argument stands out rather for its theme of cooperation in fostering a landscape effect. That is to say, he advocated voluntary limitations on property rights in exchange for a collective illusion. Individual benefits would accrue in the form of trans-class associations, visual pleasure, and improved property values. In this, he anticipated a theme that would grow to be particularly important over the following decades: a visual effect will heighten the exchange value of a home well in excess of the cost of its procurement.[34]

Anti-Spaciousness

Such strategies for engendering a sense of space only slowly found their way to discussions of middle-class homes for several reasons. First, as Scott's premise takes for granted, it took a minimum amount of acreage actually under one's control to create such effects, more land than

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32. *The Art of Beautifying Suburban Home Grounds of Small Extent*, (1870) 26-27, 214-17. Scott's lots were often about 250' by 150', which was considered small for the time. See also, Fred Schroeder, *Front Yard America. The Evolution and Meanings of a Vernacular Domestic Landscape* (Bowling Green, OH: Bowling Green State University Popular Press, 1993).

33. Some thirty years later this was still true. For small estates, that is, those under 500 acres, design of the house should be dominant since there wouldn't be enough landscape to produce any substantial landscape effects. The opposite relation of house and landscape should obtain for estates over 500 acres. Herbert Croly, "The American Country Estate," *Architectural Record* XVIII:1 (July 1905) 1-3.

34. The voluntary restrictions that Scott suggested would be replaced by aesthetic legislation only in the 1960's, the subject for another chapter. Compare also, James Marston Fitch on nineteenth-century suburban landscape practice: the lawn "served as the universal background against which the upper-class house, like a jewel in its case, could be displayed to the world. In these suburbs the lawns of one establishment flowed, almost without visible boundary, into those of its neighbors. A high fence or an opaque wall would have been unneighborly; in many of the most exclusive suburbs they were actually forbidden by law." In *Architecture and the Esthetics of Plenty* (New York: Columbia University Press, 1961) 185.

was available to the homeowner of moderate means. Part of the power of a private view in the nineteenth century remained the control of it: "There is a pleasure that none but the man of fortune knows in commanding an extensive prospect every way from his house, and knowing that all he sees is his own."[35] Visual delight declined, apparently, without actual dominion.

A second reason is that one of the primary functions of home in the nineteenth century and one of the key tropes of contemporary domestic literature was that the home should be a refuge. This understanding of the home as a place away from the larger world was unambiguous. It was the answer to the problem of the city, the antipode required of the urban critique that accompanied so much suburban development. The essence of home for many was the spirit of restfulness, a quiet space in which to harbor one's family and develop one's inner strengths. The bourgeois subject, in other words, required a space of serenity in which to steep.

Spaciousness, the sense of inner spatial flow and openness to the out-of-doors was distinctly out-of-touch with this sense of refuge. Interiors were usually understood in the nineteenth and early-twentieth centuries in contrast with exteriors and not at all as continuous with them. Architectural effects should maintain and reinforce, many agreed, "that protected feeling of inclosure which we seek in a room."[36] Since the end of the nineteenth century, however, a national mania for "outdoor living" threatened that sense of enclosure. When the outdoors was seen actually to impinge on the indoors, the tone began to get desperate. In 1916, for instance, an article in the *Atlantic Monthly* "feared for the passing of the indoors" altogether.[37]

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35. Richard Brown, *Domestic Architecture*, (London: Bernard Quaritch, 1852) 93.

36. Marcia Mead, *Homes of Character* (New York: Dodd, Mead, 1926) 108. This sense of refuge has been generally recognized, though in various terms. Gwendolyn Wright, for example, in a section entitled "The Home as Retreat from Industry," notes with irony the private acquisition and display of tasteful manufactured goods as a strategy employed to create in the home as "a haven from the world of business and industry." In *Moralism and the Modern Home*,(Chicago: Chicago University Press, 1980) 97. I am arguing here that maintenance of an interior distinct from the exterior was another strategy.

37. Zephine Humphrey, cited in Ronald Rees, *Interior Landscapes. Gardens and the Domestic Environment* (Baltimore: Johns Hopkins University Press, 1993) 165.

Even as outdoor living came, with porches and yard culture, to be a more vital aspect of home life, both indoors and outdoors remained fundamentally distinct in character and effect as well as in design approach. An article in *Indoors and Out*, a turn-of-the-century magazine of domestic arts and decoration, began an article on "The Essentials of Home" thusly: "In a broad way it may be said that in seeking to establish an ideal home, the outdoor values must be found and the indoor values created."[38] The natures of the two realms were fundamentally at odds and maintaining the distinction between them was crucial to what might be called a Victorian domestic phenomenology. The two domains exhibited, in essence, an inverse relation to one another. The more extreme the outside, the more the interior needed to counterbalance it. Efforts to maximize openings within the home and especially to the outside were ridiculed, even when, in one case, the severity outside was purely visual rather than climatic. As nice as the weather may have been, in this instance, the seaside's optical environment was harsh: "It exposes everything. The atmosphere is telescopic. In fact, there is little atmosphere, but hard, naked space. Surfaces glare, lines are sharp, objects are near, distances are foreshortened, perspective is killed." How senseless it would be, the author scoffed, to open the house up to such raw openness: "Because we live in such publicity, shall we take especial pains to make ourselves seen? Because the climate glares, shall our houses glare also?" Little atmosphere outside required even more inside. Hard, naked space without prompted within welcoming textures and the reassuring presence of finitude.[39]

To "bring the outdoors indoors," a cliché by the fifties, was not only nonsensical, it was corrosive to foundational Victorian notions both of architecture and self.[40] To hear Frank Lloyd Wright claim, for example, that, "we have no longer an outside and an inside as two separate things" would have left Victorian listeners, if they could have even understood what he meant, with

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38. C.Hanford Henderson, "The Essentials of Home," *Indoors and Out*, III: 2 (November 1906) 70.

39. Russell Whitehead, "American Seaside Homes" *Architectural Record*, "The Seaside House Number," (August 1910) 82.

40. Robert Woods Kennedy caricatured "Internationalist," "Empiricist," and "Traditionalist" responses to this directive in just such terms. Regarding "nature," for instance: the first said "Bring the outdoors in!"; the second said "Build the outdoors in!"; and the third, the Traditionalist said, "Throw the outdoors out." In *The House and the Art of its Design* (New York: Reinhold, 1954) 418.

worried looks, and not only for him.[41] It would, I think, have been registered as a loss of psychic articulation and not as an advance in architecture. To say, as Wright had, that walls were vanishing would have been to disavow not only the basis for sound enclosure but it would also have been to deny the complex role played by the window as a mediator between worlds. With immateriality the goal of wall design, the window, which had been understood as a complex and controlled transition between "the most sheltered and secluded parts of a house and the outdoor world," would disappear.[42] A treasured "quiet domesticity of effect" would be destroyed by a house "throwing its entire interior open to the view of the most casual visitor immediately upon his or her entrance" in the same way a commanding prospect disclosed the surrounding landscape.[43] With a surrounding landscape "that may be viewed for miles," the small windows of a small house could provide instead "a cozy relief."[44] Even when directly designing an interior around vistas to the outside, great control should be exercised and visual termini planned in order not to awaken, as George Howe put it in 1920, "the feeling of being lost in space as does an extended view."[45]

To a certain extent, the new found ability to open up the walls of a home and fill them with large sheets of glass, helped crystallize the importance of maintaining the distinction between inside and out. The threat of dissolution, in other words, made the distinction not only more visible, but also more precious. In his two volume study, *House Architecture*, J.J. Stevenson was remarkably prescient regarding the architectural implications of developments in the production and distribution of glass. With the larger sheets available, he wrote, "a more suitable and a more

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41. In *The Natural House*, *op.cit.*

42. John Taylor Boyd, *Architectural Record* (May 1920) 448.

43. The "quiet domesticity of effect," was, in this case, an "English idea." *Indoors and Out*, III:5 (February 1907) 252.

44. John Taylor Boyd, "Some Principles of Small House Design, Part III Planning" *Architectural Record* 47:1 (January 1920) 64-66. The small house was an "old house in Cornwall, Conn," *Architectural Record* 46:4 (October 1919) 4.

45. Regarding a design for "A Hillside House": *Architectural Record* 48:2 (August 1920) 83-88.

beautiful effect may be gained by treating the windows, not as unenclosed openings without glass, but, as they really are, portions of the enclosure of the rooms--continuations of the surface of the wall." Stevenson went on, however, to distinguish, rather than conflate, the implications for interior and exterior effects, or to take into account what today might be called the position of the viewing subject, in terms both physical and psychological:

> Looking at the window from the outside, we ought to feel that it is not an open hole; and when inside the room, we should be conscious that we are protected from the outside atmosphere. The single sheet of plate glass filling the whole window, may sufficiently keep out the weather; but it is absurd and false in art, and destructive of the feeling of comfort in a room, to make it as if there were nothing between us and the snow.[46]

Transparency, in 1880, had yet to become a dominant value for architecture and, thus, had to be mediated by other interests. To a later generation, ideas of transparency, social and architectural, implied that differences between interior and exterior should be minimized. When, in *The International Style*, Hitchcock and Johnson drew, a half century after Stevenson, the very same conclusions regarding the architectural treatment of glass--"the glass of the windows is now an integral part of the enclosing screen rather than a hole in the wall," and continuity of surfaces, correspondingly, the subject of design elaboration--they found the proposition valid regardless of viewpoint.[47] These similar observations, though drawn from different contexts, may serve nevertheless to bracket a shift in a professional conception of domestic subjectivity.

Besides, then, the threat to the individual psyche embodied in architectural change, the strain of anti-spaciousness reflects also a transformation of an institutional discourse. From a modernist point of view, the defined character of rooms was inimical to evident modern trends toward, for one thing, internationalism. Echoing arguments formulated a century earlier regarding the psychological effects of the home environment, many advocates of modernism believed that living in sharply defined spaces would hamper development of the psychological faculties necessary to cope with a world that was itself increasingly interconnected. From the other side of this

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46. J.J.Stevenson, *House Architecture*, v.2 (London: Macmillan, 1880) 194-95.

47. In *The International Style*, [1932] (New York: Norton, 1969) 45.

ideological divide, the idea of throwing open the interior threatened to dissolve the distinct spaces of subjective formation, where an individual formed distinct behaviors organized in response to the variety of situations to be reasonably expected in the very same interconnected world.

From an historical point of view, both positions regarding spaciousness seem less a stylistic clash than two versions of being certain in and about the world. In one model, psychic stability would be best achieved with a rich and varied repertoire of psychological textures. Selfhood would not be compromised, it was believed, by complexity of character.[48] In the other model, "authentic" character was true to itself and remained therefore largely indifferent to changes in social site or inside or out. Psychic stability was, in this version more a matter of casting inner and outer from the same material. Architectural forms and those who dwelt therein had to change, the argument went, to coincide with a changing society rather than to counterbalance it. It was a conception of selfhood remarkably akin to transparency in the architectural sense.[49]

This shift was felt for many at the time as a conflict of two fundamental, and fundamentally opposed principles, each of which had architectural and perceptual correlates. "One principle is the separation of rooms to preserve individuality and privacy; and the other is the throwing of them open in order to gain that effect of ease and spaciousness which is so desirable," wrote John Taylor Boyd, Jr., a frequent contributor to *Architectural Record*, regarding small house design. One principle carried connotations of identity formation and restraint, the other implied enjoyment and desire, or, more diagrammatically, one was a principle of ego, the other the id. Their conflict

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48. Erving Goffman's *The Presentation of Self in Everyday Life* [1956] (Garden City: Doubledy, 1959) elaborates on the many partial selves strung together within most Americans. As part of a larger project, some modern architects sought to efface distinctions between what Goffman called "front stage" and "back stage" activities.

49. The theoretical formulation of these ideas as a shift in institutional discourse specifically directed at relieving uncertainties is drawn from A.F. Robertson's essay, "Time and the Modern Family: Reproduction in the Making of History," in *NowHere*, Roger Friedland and Deirdre Boden, eds., (Berkeley: University of California Press, 1994) 95-126. Robertson goes on to note that a "victory over instability and uncertainty" is the ideological form in which competing institutional discourses attempt to cast each other as the destabilizing force. In this sense, eclecticism in architecture was as consonant with distinct interior spaces as it was opposed to modernism's advocay of unified interior spaces and, relatively speaking, a uniform aesthetic.

was evident in the tendency toward more and larger windows: "too many windows ... usually too big." It was a failure not only of restraint but a category mistake as well. "With windows everywhere, as many as two in one wall in a small room," interior illumination approached that of the outside and the two realms came that much closer to equalization. Boyd discerned a kind of window mania that would lead to various indiscriminate decisions such as the folly of fully-glazed rooms. He cited Dr. Denman Ross in this matter, who said, "a fireplace in a wall with windows each side of it causes confusion of lighting and diffusion of interest."[50] Muddled design, Boyd thought, muddled mind.

As an historian, Fiske Kimball saw the same contemporary conflict of principles as part a larger narrative. Technological changes in the nineteenth century had improved and democratized material comforts, many if not most of which were experienced in the home. "Full material conveniences" brought middle-class standards of comfort up to "those of the greater capitalists" and, in so doing, created an "unconscious precedent" over the other forces which might influence architectural form. He called these improvements the "*confort moderne*." It was fast replacing the "*confort ancien*," the first component of which was "the grand dimension." With limited funds, "dimensions and number of rooms" were "sacrificed," along with the "quality of materials, number and very presence of servants, and even size of families."[51] For Kimball, the small house represented an historical watershed rearticulating and reprioritizing ideas of family, self, and space.

It may come as no surprise, then, that those who had a high stake in sensibility and the cult of refinement would also, once they noticed it, be tempted to decry the growing sense of spaciousness. As the finely wrought paragon by which other sensibilities might be gauged, Henry James was by the turn of the century all too aware of the new spaciousness then materializing

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50. Boyd, "Some Principles of Small House Design. Interiors," *Architectural Record*, (1920) 446-455. Big windows, Boyd thought, were one of the "curious minor faults of contemporary house design."

51. "The American Country House," *Architectural Record*, "Annual Country House Number," 319:4 (October 1919) . The "grand dimension," like nineteenth-century spaciousness, described both property and the owner's character.

from open plans, diagonal axes, and larger and more frequent windows. He did not like it. Though still in its infancy, he called it "an affliction," "a strange perversity, an extravagant aberration of taste," and "a provocation to despair." He thought "the ingenuity of young, fresh, frolicsome architecture" had abandoned time-honored tradition and was currently spearheading an American "conspiracy for nipping the interior in the bud," and with it, interiority:

> Thus we see systematized the indefinite extension of all spaces and the definite merging of all functions; the enlargement of every opening, the exaggeration of every passage, the substitution of gaping arches and far perspectives and resounding voids for enclosing walls, for practicable doors, for controllable windows, for all the rest of the essence of the room-character, that room-suggestion which is so indispensable not only to occupation and concentration, but to conversation itself, to the play of the social relation at any other pitch than the pitch of a shriek or a shout.

For James, "the social idea" withered in "so merciless a medium" as flowing space. James grasped the new spatial ideas and the design strategies that generated it, which modernist architects would soon come to claim as their own. But, he found a stridency in that space that was antithetical to the sense of restfulness and peace embodied for so many at the time by the very thought of "home." "Roominess" ruined "room-character"; it did not enlarge it. The corollary "effacement of the difference" between interior and exterior likewise diminished one's resources for distinguishing and developing one's own intimate and social sides. In short, rather than simply being an architectural value of some merit, the early history of the production of spaciousness involved a protracted struggle that encompassed fundamental shifts in the American conception of dwelling and the formation of a modern subjectivity and social character.[52]

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52. Henry James. *The American Scene* [1907] New York: Scribner's 1946. Joy Wheeler Dow was also aware of a similar struggle in society that was becoming quite visible in architecture, in *American Renaissance*, 1904, 252. James was not alone in resisting the new openness. Edith Wharton and Ogden Doman, Jr. called the trend toward combining spaces "a retrogression in house-planning." In *The Decoration of Houses*,, 1897, 198. John Wellborn Root also believed that "self-containment" was a desirable "attribute of a man or building" in "Character and Style," [1896] reprinted in Mumford, ed. *Roots of Contemporary American Architecture* (New York: Dover, 1972) 281-2. Alan Gowans notes that, despite the advancement of central heating and the possibilities for open planning, "the great majority of new suburban houses retained the nineteenth-century system of isolated room-boxes, not so much through conservatism as in response to owners' continuing preference for individual privacy." In *The Comfortable House*, (Cambridge, MA: MIT Press, 1989) 27.

Modern Spaciousness

> The desire for great space and long vistas in the small house, plus a purely esthetic desire on the part of architects, has resulted in the free plan. Such open planning was the hallmark of the great Victorian houses, and is appropriate to their size and scale.
>
> Robert Woods Kennedy, 1953[53]

> Designs that are vast only by their dimensions are always the sign of a common and low imagination.
>
> Edmund Burke, 1757[54]

Articulate as it may have been, James's voice was no match for the developing interest in spaciousness. Indeed, he predicted as much: "The conception of the home ... as a combination of the hall of echoes and the toy 'transparency' held against the light, will meanwhile sufficiently prevail to have made my reference to it not quite futile."[55] Even as he wrote, architectural interest in color began to pale beside a growing range of other strategies explicitly geared to enhance the perception of space in a housing type that was growing progressively smaller. Spaciousness became by the thirties a rhetorical keynote of small house design, no longer efficiency's epiphenomenon but its equal.

Efficient means of construction guaranteed the small house would initially be affordable. Planning for practical necessities meant it would prove to be no burden over time, that it would, if anything, make daily life easier by making chores easier. But nothing in the rhetoric of cleanliness or efficiency could guarantee the small house still wouldn't seem meager, however functional the design. Elizabeth Mock clarified the poles of the small house dilemma that were only just beginning to be apparent at the turn of the century: "You may be reconciled to the idea of a small house, but even so you will probably want it to *seem* large." In a society quickly becoming accustomed to the expansion of choice in its purchasing decisions, "mere shelter" seemed an unpleasant anomaly. Architects and designers inserted themselves squarely into this conflict

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53. Kennedy, *op.cit.*, 280.

54. *A Philosophical Inquiry*, Part II, Section X (1990) 70.

55. James, *op. cit.*, 168-9.

between housing ideals and economic reality; though the house might necessarily be small, it needn't *feel* small: "the house which is *too* small is virtueless beyond the basic need for shelter. Far better not to build at all," Mock wrote.[56] Though few would have so quickly dismissed the need for shelter, the faith that "small houses can seem large," as Mock emphasized, was not without its adherents. Good design, many believed, needn't purchase life's necessities at the cost of its aspirations.

Perhaps the most comprehensive review of such strategies for the visual creation of spaciousness was made in 1930 by Emily Post. In a chapter of *The Personality of a House* dedicated to the small house, she provided special insight on "How Little Rooms are Made to Seem Big." Post illustrated the perceptual effects of "tricks of scale," that is, small scale furniture and underscaled architectural details, painted ceiling cornices, overscaled windows and window treatments, the use of mirrors, which gave "the best illusion of size," the use of scenic wallpaper and "all types of perspective decoration ... which create an illusion of space that does not exist," as well as the effects of color. Even beyond "a few tricks of illusion," Post noted that matters of circulation, furnishing, storage, decorative arrangement, and ease of use all contributed to a house's quality of spaciousness. A poor furniture layout, for instance, was not only awkward but gave "an impression of cramped discomfort." In contrast, "space-saving methods" seek greater efficiency while satisfying utility and, as a result, contribute to the impression of size.[57]

Incipient in Post's discussion is a functional conception of spaciousness eventually championed by modern architects and unique to the twentieth century. In the first quarter of the century, architects in America argued that, particularly with the small house, domestic designs had to support a greater range of activites and a greater intensity of usage within the same space.[58] Most often, this was what was meant by "flexibility": diverse daily activities could be accommodated

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56. Mock, *op. cit.* 16.

57. Emily Post, *The Personality of a House*, (New York: Funk and Wagnall's, 1930) 445-63.

58. "By 1910 it was rare to have single-purpose rooms," writes Wright, 1981, *op. cit.*, 171.

within a limited space.[59] As it developed over time, flexibility appears to have taken two primary forms. The first and older form is the idea that a range of activities might take place within the same room simultaneously. Describing the Better Homes Committee's "Everyman's House" in Kalamazoo, Michigan, Dr. Caroline Bartlett first noticed upon entering the "living-dining room" that "one may see at a glance that it is so planned as naturally to distribute the family and thus make it in effect a larger room than its actual dimensions." While her next observation concerned the "windows on three sides of this room, and a really superb view from every one of them," the *sense* of space resulted from the distribution of family members all following their distinct interests.[60] In all likelihood, this form of functional spaciousness had as much to do with changing notions of private or "backstage" activities, as it did with changes in architectural form.

A second and somewhat later version of functional spaciousness involved not the simultaneous adjacency of different activities but the temporal succession of acitivities. Not just the same room, but the same square foot of space was host to different tasks. As Neutra put it, with the limited floor area of the small house, "usefulness will have to be tested by the intensity of easy, logical, flexible usage of each part of this floor area during the day. So-and-so many 'square foot hours' of usage per diem will be its livability index of dwelling value."[61] Livability, especially critical for the small house, thus became a coordinate of utility and increased as utility was spatially concentrated. Within the same space, one could pursue different activities, which, in an earlier age, would have required as many different spaces, thus, in effect miniaturizing space in terms of its productivity. As a result, a little of the new flexible space could substitute for a lot of

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59. Giedion thought flexibility was the "key" to American domestic architecture, allowing it to accommodate change and growth, to be, in effect, dynamic, especially in regard to the more static Euorpean conception of home. In *Space Time Architecture* (Cambridge, MA: MIT Press, 1967) 363-5. In any case, the term became a fixture of American architecture in the 1940's and 1940's: "Shelter must have one major characteristic--FLEXIBILITY," Ralph Rapson in *California Arts + Architecture* (November 1943) 22.

60. Dr. Caroline Barlett. "'So big,' a little house" in *Everyman's House*. (Garden City: Doubleday, Page, 1925) 21, foreword by Herbert Hoover. It is only fair to note that, at the same time, a diversity of distinct spaces was considered a boon to spaciousness. See for example, Boyd, "Some Principles of Small House Design," *Architectural Record* XLVI:5 (November 1919) 408.

61. Richard Neutra, *Survival Through Design*, (New York: Oxford University Press, 1954) 260.

the older actual space. Spaces, in other words, could feel larger as they served domestic affairs more intensively.[62] While many traditional-minded architects pointed out how modern houses could look like factories, the functional conception of spaciousness was fairly explicit in maximizing the spatial resources dedicated to the domestic production of leisure in the same way spatial resources are optimized in the industrial production of goods.

As conceptually distinct as functional is from visual spaciousness, the two were in fact often associated, in part by being answers to the same confrontation in the small house between spatial aspirations and financial limitations. Referring to his "index of livability" in *House and Garden*, here described more simply as the "hours of usefulness per day each part of a floor plan provides," Neutra continued his discussion of the ways "a small house can equal a large one in livability,": "Another of our rules is to expand into the outdoors." Accompanying illustrations repeat the important point that, "THE OUTDOORS determines the size of the livingroom," which, nevertheless, was fully indoors.[63] Lost were not only distinctions between ways of creating spaciousness but the oxymoron at the heart of the concept as well, that is, that the illusory aspect of spaciousness is its apprehension despite the absence of space. "The illusion and actual presence of spaciousness," as one author put it, were "encouraged by the use of large areas of glass to give an uninterrupted view."[64]

Historically, too, the ways of producing spaciousness had been multiplying but, since directed toward the same goal, merging as well. Designer Nicolas Remisoff, for instance, described the ways he tried "*to obtain the effect of size in a small house*," in his work for dancer Ruth Page. He used different colors on different walls in a single room and harmonized wall colors with the furniture to extend decorative effects across ever larger surfaces. Light that was reflected off of a wall painted deep blue was especially effective, he noted. Overall, "my attempt was to create an

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62. This provides an explanation beyond simple acquisitiveness for the mania for "gadgets" in the home: gadgets helped concentrate utility and thus contributed to readings of spaciousness.

63. Richard Neutra, "Focus on Fresh Ideas," *House and Garden* 95 (May 1949) 124-26.

64. Ernest Pickering. *The Homes of America*, (New York: Thomas Crowell, 1951) 276.

optical illusion to give a greater sense of space within the small but practical rooms." The living room, though, had a window wall and thus presented "an opportunity to secure a similar effect." "Since this view was the main attraction," he downplayed the other ways of inducing spaciousness that he had explored elsewhere in the house.[65] [Figs. 4.4-4.9]

During the same period, other sorts of spaciousness were in evidence that were neither functional in the sense described above nor strictly visual. Far and away, the most inventive catalog was issued by Frank Lloyd Wright. Wright's work for over two decades on his Usonian houses reflects his commitment to the small house type and reveals the depth of his resources for creating impressions of spaciousness other than with a view. From the start, Wright chose not to use the biggest sheets of glass available, but to break them down into dimensions that reflected the house's module of construction. His 1939 design for the Schwartz house, for instance, placed its thick brick piers right at the lake front view, similar to the way Breuer might have placed a hearth there. The view was visibly subordinate to construction, though, rather than to symbolism; it was showcased, perhaps, but only within the material and dimensional logic of the structure. For what was often called an "undistorted view," the owners had to go outside. In contrast to the focal position that landscape views would soon achieve in private home design, views in Wright's houses never dominated understanding of house. Despite his repeated invocation of nature throughout his career, Wright was not one to let it upstage architecture.[66]

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65. "Space--in a Small House," in "A New Style for a New Today." *Our Homes*, (1934) 4-5, 49. [Emphasis in original] Color nevertheless remained an important tool for the creation of spaciousness: "The spaciousness of an interior and the esthetic satisfaction it conveys are materially affected by the use of color. . . . The spatial value of color profoundly affects the general space impression of an interior." In James and Katherine Morrow Ford, *Modern Interiors* (New York: Architectural Book Publishing, 1942) 14.

66. Perhaps Wright's insistence on creating a sense of space without relinquishing the sense of enclosure is what led Philip Johnson to consider Wright "the greatest architect of the nineteenth century." In "The Seven Crutches of Modern Architecture," [1955] *Writings* (New York: Oxford University Press, 1979) 140. Johnson withdrew the claim soon after.

In other cases, as John Sergeant points out, Wright incorporated notions of time or circulation in his projects, which had, in turn, implications for perceptions of space.[67] In moving through the separate pavilions of the Jester house, for instance, one travels past a range of territorial definitions usually associated with greater distances. Wright condensed these definitions but was careful not to eliminate them. Movement here, as a result, involves more layers of spatial definition than are typically expected "inside" a house. Even Wright's well-known use of glass corners seems to focus more on the idea of absent structure than any view beyond it.[68] At the very least, in this regard, a view would be tied directly to an assertion about structure. Further, rather than the frontal or perpendicular viewing angles most commonly recommended in popular publications, Wright's views often complete the diagonals that organize his interior spaces.[69] Finally, he was known to take some pleasure in distortions of the view, such as the icicles and "frosted arabesques" at Taliesin East that "glittered between the landscape and the eyes inside" and resulted in elaborations of the enclosing glass rather than highlighting its invisibility.[70]

Oddly then, Wright all but claimed to have invented the view as a means of generating a sense of spaciousness. In 1954 in *The Natural House* he wrote that by 1893 he had begun "to see a building primarily not as a cave but as a broad shelter in the open, related to vista; vistas without and vistas within."[71] Earlier writings, though, reveal him to be much less concerned with the view *per se*. He seemed more interested in adding "a higher note to the effect of *light* itself" in his window designs, adding pattern and color to the interior rather than opening it up to undistorted

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67. John Sergeant, *Frank Lloyd Wright's Usonian Houses. The Case for Organic Architecture*, (New York: Watson-Guptill, 1976) 36, 58 and throughout.

68. A similar point might be made regarding the corner windows common to many Shingle Style homes where, in Scully's reading at least, the architectural intent of corner windows seems more clearly directed toward explorations of volume.

69. See Neil Levine, "Frank Lloyd Wright's Diagonal Planning," *In Search of Modern Architecture: A Tribute to Henry-Russell Hitchcock*, Helen Searing, ed. (New York: The Architectural History Foundation, 1982) 245-77. Robert Woods Kennedy, for one, complained of the tendency to frame views frontally, in Kennedy, *op. cit.*, 475.

70. In "Taliesin. The Chronicle of a House with a Heart," *Liberty* 6:11 (23 March 1929) 26.

71. Wright, 1954, *op. cit.*, 16-17.

views. Such decorative windows "may be seen in most of my work," he noted in 1928.[72] In light of the spectrum of spaciousness evident in his designs for Usonian houses, his later statement seems more an attempt to claim authorship of a contemporary architectural value than to accurately depict his own practice. Judging from his work, spaciousness implied more than illusions of depth.[73]

Other architects also recognized a range of space-expanding strategies, though a narrower one and typically centered on the "open plan."[74] This was especially true in plan books, where sites, and views, had yet to be determined.[75] It was also the case when sites were without natural views. One of the best known examples of this sort was Breuer's design for the Museum of Modern Art's demonstration house in its sculpture garden along 54th Street in Manhattan. [Fig. 4.10] It was conceived as a "moderately priced house for a man who works in a large city and commutes

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72. Wright, "In the Nature of Materials. Glass," *Architectural Record* 64:1 (July 1928) 14.

73. The confusion between different sorts of spaciousness and different ways of achieving it was sufficient enough to incite at least one contemporary critical attempt "to expose certain levels of meaning with which the term 'transparency' has become endowed." Colin Rowe and Robert Slutzky's "Transparency: Literal and Phenomenal" may be understood as an attempt to safeguard the architectural power of the concept from what can only be described as its popularization and literalization. In *Mathematics of the Ideal Villa*, (Cambridge, MA: MIT Press, 1976). The essay was written in 1955-56.

74. While Robert Woods Kennedy, as quoted at the top of this section, equated the open with the free plan, it is important to distinguish them. In Le Corbusier's conception of the "plan libre," the laws of architectural development were derived only from functional considerations. "Free" described the interior space's relationship with structure. Corbusier demonstrated this, in part, by varying plans from one floor to another in the same project, as in the 1926 Maison Cook and the 1928-30 Villa Savoye. For further discussion see Max Risselada, "Free Plan versus Free Facade," *Raumplan Versus Plan Libre*, New York: Rizzoli, 1988, 55-64. "Open" would also at this point have referred to the decline of structual constraints on spatial development as, for instance, Theo van Doesburg wrote in 1924 in "Towards a Plastic Architecture," cited in Ulrich Conrads, *Programs and manifestoes on 20th-century architecture* [1964] Cambridge, MA: MIT Press, 1975, 79. "Open" as used here is less open; it already implies a spatial development. It is descriptive more of the perceptual result than the design possibilities. The term "fluid plan" has also been used to characterize multi-functional rooms with the full range of spaciousness producing features, including "glass walls that open to adjoining terraces or permit a full view of the near or distant landscape." In Sherrill Whiton, *Elements of Interior Design and Decoration* (New York: Lippincott, 1951) 395.

75. Certain books nevertheless reserved a few plan types for those sites that did have views. The "Outlook" model, for instance, was "planned for a view," although it was nearly identical in plan to the place-named "Utah." *A New Book of Ranch House, Bungalows and Solar (Sun Ray) Houses* (New York: Authentic, 1950).

to a so-called 'dormitory town' on its outskirts where he lives with his family." And, it was emphatically not a "minimum house." Rather, it was intended "to demonstrate how much good living and good design can be purchased for how many dollars." "Good living" could be roughly translated by "outdoor living," or a casual and friendly relationship with the world. As a programmatic mandate, "good living" meant making leisure and ease evident. In MOMA's garden and in many other cases, this was achieved with partitions that stopped short of the ceiling and revealed at any one point the greater spatial frame, and also by the appparent ease of movement from indoors to outdoors.[76]

Walls that stopped short of ceilings added a new meaning to the understanding of wall: they could suggest a lack of spatial containment; continuous space winning out over complete enclosure. To be effective, however, the sense of continuous space could brook no end. Planes of walls, floors and ceilings carried the eye from inside to outside and beyond so it was a distant view, finally, that legitimated the open plan's fundamental proposition of spatial continuity. Without some distance beyond the glass, all internal visual movement would be stopped short, just as abruptly as if it had hit a blank wall. But, "*the eye is not stopped short at the limits of a room*" was a tenet in American modernism's charter and a message that bore frequent repeating: "The sense of space as free and continuous, within the house and to the outside, is achieved by means of open planning. . . . this means that the eye is not stopped at the boundaries of the room, but led on by continuous planes."[77] The logic is apparent: the sense of spatial extension required a perception of extent, if not actually within a small house, then somewhere close to it. A far view was the commonest way to guarantee the flow of space with which modern architecture had hoped to distinguish itself. Besides smooth surfaces, modern meant, for many, an impression of unbounded extent. Like a monument at the end of a Baroque-era axis, a view completed a visual arc that, in residential

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76. In *MOMA Bulletin*, xvi:1 (1949). Given a less constricted site, such as that of Breuer's contemporary Robinson House, the view was cited as the key determinant of spaciousness.

77. Mock, *op. cit.*, 33, 41 (Emphasis in original).

architecture, united the open plan with the open countryside.[78] In this sense, it functioned less like a terminus than a field of dispersion, an anti-monument, so to speak.[79] For the most part, an open plan meant little in a closed setting.[80] Thus, while the varied techniques for creating visual spaciousness continued to be recognized as effective means of creating and controlling the sense of space, their active promotion depended, in very many cases, on a view.

Openness to views was not only an advantage of modern architecture, it was a step forward in architectural evolution. James and Katherine Ford had argued in 1940 that visual spaciousness was actually a "high development of the 'indoor-outdoor house' through which the indoor space is enlarged by its unobstructed views of the out-of-doors afforded by means of large glazed areas, which can at will be thrown open."[81] One can almost witness the evolutionary step as it was being taken. In 1936 *Architectural Record* explained that the old sense of space, which had for the most part been commensurate with the space enclosed, was just then being superseded by a sense of space that exceeded enclosure. It was still a novel idea at the time: "The spaciousness of the

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78. Descriptions commonly dramatized the flight of the eye as it swept through the interior space and on outside, without so much as pausing at the glass walls. See, for example, "House in Atherton," *Progressive Architecture*, 27:6 (June 1946) 48ff, or Neutra's description of a house he designed in San Bernardino: "Cool spaciousness characterizes this house . . . The feeling of uninterrupted space ... From the ecouch in the solarium one's eyes roam to the end wall of the den, an expanse of about 55 ft, and through glass along the overhang about another 30 ft more. This sensation of space in a comparatively moderately sized house of 2700 sq ft comes like a joyous surprise." In "San Bernardio House Planned to Look Cool" *Architectural Record* 119:5 (May 1956) 171-73.

79. Glass walls had, in urban architecture, been taken to be disruptive of monumentality. In 1942 the landscape architect Christopher Tunnard noted a similar effect regarding residential architecture. An axis, he reasoned, was an extension of a discrete "emphatic feature," such as a door or other punched opening. Accordingly, traditional house design involved the "enframement of views." But, glass walls diffused architectural intensity across an entire surface. Transparency rendered the axis obsolete and, in many formulations, monument and axis were indivisible. The new relation between house and setting, Tunnard argued, involved a potential field of vistas, characterized more by breadth, to correspond to the larger opening, than by a particular focal object, which would be expected of an axial view. In "Modern gardens for modern houses," *Landscape Architecture* (January 1942) 32.

80. Arthur Drexler once referred to the opaque walls of Philip Johnson's guest house, adjacent to the glass pavilion at New Canaan, as having a "view-stopping quality." Drexler, *Interiors and Industrial Design* (October 1949).

81. In *Classic Modern Homes of the Thirties*, [originally *The Modern House in America*, 1940] New York: Dover, 12.

present-day living room need not be limited to the inclosing walls, but may be extended to the garden by means of windows and doors that open on to a terrace or porch . . . It should have privacy and pleasant outlook." Insisting on doors that open reveals, in this case, a lingering unwillingness to fully separate view from movement to the exterior, a fine point that would often be overlooked in years to come.[82]

The shift toward windows and the views out of them as the primary means of creating spaciousness was already evident within Post's book. Although she was catholic in her consideration of ways to create spaciousness, none compared to what she called her "insatiability for windows": "Perhaps windows are my monomania! A house without full-sized windows in the bathrooms and windows all over the place holds no charm for me." And, she acknowledged, big windows were a signal feature of "the Modern style," which, as a result, was the style most promising for the house of moderate means. Indeed, the modernist sense of spaciousness resonated with her window-mania: with windows "literally unlimited in size," sunlight floods the room, and "with the curtains pulled back the effect is of a wall of glass, and the ground outdoors becomes a continuation of the floor within." All too aware of the machine-aesthetic rhetoric of modernism that had yet to win popular acceptance, Post nevertheless defended her obsession, "I do grant that a house of importance may not be built like a factory; but there is a very wide range between rooms with whole glass walls and rooms with dormers like nothing so much as long narrow horse-stalls." Though she offered a number of reasons for regarding windows so highly, most prominent among them was the view's creation of spaciousness. Even "the room without any tricks of decoration has the comfort as well as the effect of a considerably larger room. Why? Because the many windows give the illusion of breaking the walls out into the views of the garden, or to the width of the awning."[83]

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82. Regarding the living room only, in "The Low-Cost Private House," *Architectural Record* (February 1936) 93.

83. Post, *Ibid.* 499, 410-11, 446.

In 1954, Vincent Scully found it ironic that Post, the daughter of Bruce Price, one of the forebears of the Shingle Style, should have been so conservative in her design tastes. In the light of her confessed fenestration fixation, however, she not only embraced her own pathologies as would the most progressive neurasthenic, she located in modern design the search for spaciousness that Scully would come to historicize some twenty years later. She also avoided, unlike many other writers on interior design, equating "Modern style" simply with the fashions of Art Deco. Perhaps, then, there may be a second irony, that Scully's history of the American development of "the new sense of space," written at the very peak of contemporary interest in spaciousness, was dependent upon earlier elaborations of the idea, such as those of Post. Scully, who time and again demonstrated his awareness of contemporary developments in architecture, shared with her at least this concern.[84]

Echoes of anti-spaciousness could still be heard at mid-century. "I don't want the out-of-doors to intrude upon the indoors," asserted at least one rugged individualist. He valued the contrast between inside and out that had been crucial to an earlier age.[85] Even Elizabeth Mock, who championed modernism's blessings, thought the emphasis on spaciousness could be taken too far. "A thesis exists only in relation to its antithesis," she postulated: "light needs darkness, bigness needs smallness, freedom needs constraint and good can be pursued only in the knowledge of evil. Man retains his primitive need for cave-like security even while he delights in unlimited light and space, and the best modern houses," she assured readers, "give both."[86] Despite her willingness to

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84. Besides, *The Shingle Style*, see also, "American Villa," *Architectural Review*, 115:687 (March 1954) 169-79, where Scully historicizes the consolidation of architectural theory around the growing taste for spaciousness.

85. Cited in Kennedy, *op cit.*, 344. Russell Lynes complained that "architects assume that we all want--or ought to want--all the daylight we can get, and that we want the illusion of space that comes from incorporating the outdoors into the livingroom. . . . But it disregards the fact that for some pople at some times, enough is enough." In "Architects in Glass Houses," *Harper's* (October 1945) 191.

86. Mock, *op. cit.*, 42. Even spaciousness was not outside the desire to have it all, however contradictory: "Our house is extremely satisfying to live in. Pitched ceilings and glass walls somehow produce two opposite effects--snugness, spaciousness," reported the owner of a house designed by John Pekruhn, in "Pennsylvania House Balances a Way of Life," *Architectural Record* (Mid-May 1956) 189-91.

consider all sides of human psychology, that is, both of them, she mapped developmental and moral correlates on to her architectural and perceptual dichotomy. In other words, seeking a sense of enclosure was perfectly acceptable, that is, for those ready to admit their own neanderthal insecurities and their cravings for darkness, smallness, constraint, and evil. On the other hand, she did allow that even the most expansive and modern desires may be closely bound to the most primal anxieties, an observation that would only later receive more theoretical exposition.[87]

Those who expressed doubts about the project of spaciousness altogether nevertheless did so in terms wholly consonant with it, rather than in regard to a vanishing subjectivity. When considering the various "ways to make very small space seem larger," Thomas Creighton and Katherine Morrow Ford complained that, "many persons begin to think immediately of tricks" like mirrors or color effects. "Such means of fooling your own eye and your neighbor's appraisal are useful," they allowed, but only as visual distractions from what was really going on in terms of usefulness. Tricks of visual deception would ultimately be brought up short, "because they make space *look* bigger, but they actually don't give you any more room to move around in."[88] The authors appreciated that the search for spaciousness entailed a separation of perception from judgement, separating questions of visual perception from matters of utility and movement. But they resisted what they thought to be the common practice of encouraging clients to enjoy illusions of space rather than attending to the reality behind them. Creighton and Ford would not likely have disagreed with the distinction Post so clearly saw between "space that does not exist"

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87. The idea that primitivism is very much part of modern experience has been explored by Matei Calinescu regarding modern literature in *Five Faces of Modernity* (Durham: Duke University Press, 1987); by T.J. Lears regarding American history in *No Place of Grace: Antimodernism and the Transformation of American Culture 1880-1920* (New York: Pantheon, 1981). Adorno and Horkheimer's *Dialectic of Enlightenment* [1947] (New York: Continuum, 1972) stands out as the most well-known contemporary study of this phenomenon. Compare also Sigfried Giedion on Wright. Giedion thought that Wright's "cautiousness" and "hesitation about opening up the house with glass walls" was due to his understanding of "the human animal" as a creature with "primitive eternal instincts" and a "desire for shadowed dimness" that could, Giedion hints, be an artifact of "his generation," which, on occasion, he could overcome. In *Space Time Architecture* [1941] 5th edition, (Cambridge, MA: Harvard University Press, 1967) 417.

88. Katherine Morrow Ford and Thomas Creighton, *Quality Budget Houses*, (New York: Reinhold, 1954) 33.

and "space that is actual."[89] They disputed, rather, the enthusiasm and design attention given to one rather than the other. Their relative isolation registering this complaint illustrates just how selectively other modernist dogma, like honest expression of materials and structure and revelation of artifice, had been absorbed.

By this time, however, resistance may have seemed futile since, as James might have said, the "toy 'transparency'" had come to be taken rather seriously; spaciousness, as he thought, had sufficiently prevailed. In fact, the open plan and its host of related "extension-of-space elements" had "almost become a cliché."[90] Architects needed no longer learn about the perceptual creation of space, simply to recall it. "Remember," ran an advertisement for glass-maker Libbey-Owens-Ford, "larger windows make the small house seem more spacious."[91] Clients would celebrate the architect's good sense. "The owners applaud the sense of space," *Progressive Architecture* reported, regarding a house designed by Pietro Belluschi: "'the living room with its many large windows makes us feel as if we were living in the outdoors,'" the clients cheered.[92] According to *House Beautiful*, one of the key trends in contemporary design was "the use of optical illusion to give spaciousness to small houses and small lots. Rising building costs necessitate smaller rooms. But Americans do not like to feel cramped. So a whole new type of designing is coming into architecture and landscape design."[93]

By all perceptual measures, then, the small house couldn't really be considered small any more, it simply became affordable, as architects had hoped it would decades earlier. William Wurster

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89. Post, *op. cit.*, 448.

90. Said in regard to Hugh Stubbins's house in Lincoln, MA, of "expandable space," in *Progressive Architecture*, (March 1953) 88.

91. In *Progressive Architecture*, (December 1946) 97.

92. "House, Sherwood, Oregon." *Progressive Architecture*, (April 1948) 73-4.

93. "A $29,500 house that symbolizes America's Emerging Pattern of Living," *House Beautiful* 92:5 (May 1950) 148. A caption on the same page reads: "As houses and lots get smaller, we are using the laws of optical illusion to fool the eye and create the illusion of spaciousness."

clarified this redefinition of what had become an important American building type and a continuing object of professional interest: "When is a small house large?" he asked in 1947. His answer was when glass walls provided "the feeling of space even if you cannot afford it as a fact."[94] Over the course of fifty years, advocacy of the small house had shifted from an emphasis on hygiene and efficient planning for the benefit of the poor and working classes, with the occasional recognition of perceptual surplus, to an exercise in optical illusion for the middle class.

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94. In *House and Garden* (August 1947) 72.

Chapter 5: The Ruler and the Eye

> Where does this living room stop? By the ruler, just a few feet from you.
> By the eye, it reaches on out into the woods.
> Thermopane window advertisement, 1951 [1]

The understanding of spaciousness rested on a distinction between actual space and perceived space, that is, between the ruler and the eye. It was explicitly phenomenal in formulation, a subjective impression of space independent of its objective existence. These two spatial modes, actual and perceived, were discussed explicitly at the time: designers devised strategies to produce impressions of space precisely because the real thing was getting harder to find. Indeed, in discussions of the small house, architectural success could almost be measured by this inverse relationship, by seeing deep space where only shallow space existed.[2] In phenomenological terms, then, spaciousness is territory as-given to perception.

While distinctions between the measure and the perception of space have been puzzled over since at least the eighteenth century and the writings of David Hume and Bishop Berkeley, the continuing concern for philosophers and scientists alike had been the accuracy of vision for learning about the objective world. Determining a correspondence between a physical stimulus and a resulting perception was a major premise of such investigations. Findings early in the nineteenth century of a rather large gap between a physical stimulus and a resulting perception fairly precipitated a crisis in emerging biological sciences and helped define psychology and

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1. Libbey, Owens, Ford, advertisement for Thermopane windows. *House and Garden*, (May 1951).

2. By this standard, film and, widescreen cinema in particular, which, though invented decades earlier, became popular only starting in 1952, could be considered architectural achievements. When Walter Benjamin suggested in "The Work of Art in the Age of Mechanical Production" that film would replace architecture, he hadn't allowed for the possibility that architecture might adjust to the twentieth century by redefining itself in cinematic terms. George Nelson, for one, projected this understanding backward on to architectural history. Theater in general, he thought, was feasible only because the physical discomforts of confinement and immobility in a theater could be offset by visual expansion. He related that Josef Hoffmann had observed that "the constricted area of a box at the opera was tolerable because the box opened onto a vast interior. The same principle has been applied to the small house; a room may be small, but with a large opening on a garden it feels bigger." Excerpted in *House and Home*, (May 1952), 139, from Talbot Hamlin's *Forms and Functions of Twentieth-Century Architecture*.

physiology as separate fields for scientific inquiry.[3] Later in the century, aestheticians, particularly in Germany, drew regularly from the contemporary literature of experimental psychology. Adolf Hildebrand, to take only one example, described the ways that low-relief sculpture might set off the perceptual triggers that registered depth, triggers which had been mentally encoded during infancy as spatial knowledge.

In the twentieth century, however, American designers delighted in the inaccuracy of vision, in its ability to be misled and made the tool of matters more pressing than physical reality. Spaciousness was explicitly formulated as an illusion cheerfully subscribed to. It denied or at least downplayed what was widely seen as an economic reality: limited means. By highlighting the view, in particular, as a means of creating spaciousness, the formal elaboration of architecture was directed toward the abrogation of limits. Architects relied explicitly on misjudgements of size, on the points of perceptual disconnection from the objective world, that is, from the world of the ruler. In modern house design, as James and Katherine Morrow Ford candidly put it: "Spaciousness is emphasized rather than size." A more direct statement would be hard to find.[4] The discourse of spaciousness, then, so prominent in discussions of mid-century residential architecture, was based on a puzzle of size without dimension and extent without extension.

More than simply being recognized at the time, the construction of spaciousness was socially dynamic. When other social categories intersected the world of architecture, this widely accepted distinction between actual and perceived space was graphed on to them. Social realities came to be colored by these divergent modes of spatial knowledge: an economic rule had produced the small house but its enjoyment, architects argued, was governed by the eye; a middle-class income could buy a decent and practical house but modern design could make it appear luxurious, even

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3. See, for example, D.W. Hamlyn, *Sensation and Perception: A History of the Philosophy of Perception* (London: Routledge 1961) and Gary Hatfield, *The Natural and the Normative: Theories of Spatial Perception from Kant to Helmholtz* (Cambridge, MA: MIT Press 1990). Jonathan Crary has explained the significance of such developments for the practice and understanding of art in his *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century* (Cambridge, MA: MIT Press 1990).

4. In *Design of Modern Interiors*, (New York: Architectural Book Publishing, 1942) 22. Said in regard to architect Constantine Pertzoff's house in Lincoln, MA.

excessive; if indicators of lost autonomy were everywhere in an urbanizing world, and psychic distress the unhappy result, then a sweep of space over an untroubled landscape was good therapy while recuperating at home; an assortment of modern troubles could be offset, the argument went, by the good graces of extra-large spaces. Onto Emily Post's categories of "space that is actual" and "space that does not exist" had been differentially overlayed connotations of economic constraint, biological incompatibilities, and urban crisis. What the ruler diminished, in short, could be restored through the eye. There was little a big view couldn't do. As a result, visual expansion of the private home became a new design standard, and the eye, in turn, became the new ruler.

Economic Compensation

> Vision comes into grounds surrounding and he places appropriate gardens around him. Vistas of the landscape become part of his house and life just as his house becomes integral part of neighborhood landscape. . . . Luxury for him will consist in his new sense of a harmony--space free is his.
>
> Frank Lloyd Wright, 1958[5]

> Big fireplace and terrace and a spacious living room, the greatest luxury a family can have--space!
>
> Cliff May, 1984[6]

At a basic budgetary level, perceived space was seen as a substitute for actual space. Actual space was nearly always more desirable but usually not available to the middle class since it was directly proportional to actual wealth. Architects could do little to help in this regard. Architects could, however, be quite helpful, but only if clients would learn to appreciate perceived space, which remained a possibility despite limited wealth. As this logic of substitution was increasingly accepted, it came to be also expected. Unlike film, which similarly deals in spatial illusion and has been theorized, as well as enjoyed as an escape from reality, spaciousness was a strategy for

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5. "He" is "the awakened citizen," who lives in a Usonian house. From *The Living City*, 1958, cited in Kaufmann and Raeburn, eds. *Frank Lloyd Wright: Writings and Buildings*, 267- 8. Wright continues: "This interior sense of space in spaciousness is . . . the true machine age triumph, a true luxury."

6. May recalled saying this to a friend after the completion of his own home, in *The California Ranch House*, UCLA Oral History Program, 1984, 229.

changing reality by changing how it would be seen. Put another way, perception affects judgement and changes in the perceptual environment may well alter beliefs about the qualities of that environment. After the careful design at one subdivision in California, Lee Edson mused in an issue of *Harper's*: "People may still live in a tract, but, if they don't know it, does it really make a difference?" Spaciousness, in other words, was specifically intended to add something extra, something generous and uplifting, to the appreciation of otherwise minimal houses and their settings.

In the first years of the Depression, adequate housing by itself had been a worthy goal. C. Theodore Larson, for instance, optimistically noted a growing trend toward "minimal habitations" designed with "small wage earners" in mind, shortly after the first CIAM conference, which centered on precisely this issue.[7] Reviewing Robert and Helen Lynd's study of middle America *Middletown*, Douglas Haskell argued it was imperative that architects address the "minimal house ... as they have already done in Europe."[8] Mumford went further. Though still growing in popularity, detached housing was too wasteful of land to endure. "It is impossible to isolate such houses sufficiently," he explained. The type was simply no longer viable because its twin "demands of vision and economy" were at odds with one another. Rejecting a housing type that wasted economic resources on visual space would result, he argued, in lower cost to society and a bonus of usable space for the individual.[9]

If ideas of an *Existenzminimum* never took hold in the United States, it might well be because a dwelling explicitly conceived as a minimum removed some emotional charge from ideas of home

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7. In "How Small a House?" *Architectural Record* (August 1930) 131-32. See also Norman Rice, "The Minimal House: A Solution," in the same issue, pp. 133-37.

8. *Architectural Record*, (January 1930) 46-47. As indicated here, housing concerns were a central problem for architecture in the twentieth century. Le Corbusier, in *Towards a New Architecture*, wrote: "The problem of the house is a problem of the epoch. The equilibrium of society depends on it." [1923] 1927, 12.

9. "Mass-Production and the Modern House," *Architectural Record*, 67:1 (January 1930) 110 and 67:2 (February 1930) 116. Regarding the single-family house's "ephemeral appeal," see *Architectural Record*, (March 1932) 211.

ownership. Earlier, any number of housing professionals, including real estate developers and builders, as well as architects, had been quick to realize that home-buying decisions were motivated at least as much by buyers' emotions as by their sound economic reasoning. They realized that nothing could dampen a buyer's enthusiasm faster than declaring a potential purchase "minimal" or merely "adequate." Thriftiness was not a compelling subject for consumer fantasy. Spaciousness, though, had some emotional promise: it was directed expressly toward redressing the financial limitations to which the middle class had otherwise to yield. In a marketplace increasingly affected by the successes of motivational or aspirational advertising, spaciousness was the sort of minimum professionals could work with. Though sometimes in conflict, the demands of economy would not eradicate the desires of vision.

Acknowledging, then, that "the most important measure of a dwelling" is not its size but "the amount of accommodation" of "health and comfort," *Architectural Record* insisted a "low-cost private house" have not minimal but "reasonable spaciousness."[10] George Keck, getting in 1942 a headstart on the coming optimism, expected much more: "The postwar age ought to be an age of plenty for all. ... WE THINK IN TERMS OF MINIMUM HOUSING STANDARDS. . . . WE MUST THINK IN TERMS OF MAXIMUM HOUSING STANDARDS, for such a maximum standard is available to all."[11] By 1948, new information on human needs, along with, one imagines, some postwar prosperity, "reveal the minimum as a shameful goal," wrote *Architectural Forum*.[12] William Wurster explained that *Existenzminimum* generally answered to people's needs, such as shelter. Instead, he thought, it should respond to their desires, that is, to "what people are

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10. "Low-cost Private House" issue, *Architectural Record* 79:2 (February 1936) 87. "Accommodation" here implies a version of functional spaciousness. The many tasks the single-family house ideal was called upon to serve may help explain the need to prevent it from being thought of as a compromise. For instance: "The small house, in our experience, is the common denominator of interest for professionals and laymen alike. In a good many ways, it sums up what we are fighting for. The dream of a small house to come ... can be potent propaganda for our side." From "The New House 194X," *Architectural Forum* (September 1942) 65.

11. George Keck, "Housing Standards," *Architectural Forum* (September 1942) 138 (Ellipsis and emphasis in the original).

12. In this issue, dedicated to "measure," much of the discussion was focused on "happiness" and "spirit" and other intangibles. *Architectural Forum* (November 1948) 91.

really seeking." And, what they wanted, he continued, what was "probably the predominant single desire," was for outdoor space they could control. Thus, the new "minimum standard for modern homes," he suggested, would be "private outdoor space, with a large glass area overlooking it . . . private green space which may be enjoyed inside as well as out-of-doors."[13]

To take only one example, *House and Garden*'s "ideal house" in 1938 was a wholly practical affair. Moderate means meant the house was "confined to the practical essentials" and required "skillful, practical planning." Coming out of the worst years of the Depression, the *House and Garden* home sounds like an architectural primer of common sense and thrift and a fine illustration of what Jacques Barzun called "America's romance with practicality."[14] For this reason, the architect's "creation of long, uninterrupted vistas to give a feeling of spaciousness" stands out as an unearned excess. Indeed, the article emphasized this very angle, pointing out that spaciousness was "a quality usually found only in houses of much greater size."[15] A compact plan was practical; an open one was spacious; a modern one was both. By 1951, the formula could be neatly encapsulated: "This visual enlargement tends to compensate for the small-size house we have to build today."[16] Virtual space, many felt, could take the sting out of the disappointing dimensions dictated by economic reality, that most uninspired of architects.

Since it was a quality openly associated with "houses of much greater size," spaciousness provided in a small house a smattering of luxury. Like luxury, it involved a functionally superfluous enhancement and contained thereby at least a hint of extravagance, if not exactly uselessness. Spaciousness was advocated and, one presumes, satisfying neither for its "practical" enhancements nor for what Van Rensselaer called "comfort in small dimensions." It was

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13. *Architectural Forum* (September 1949).

14. Cited in William Dobriner, ed. *The Suburban Community*. New York: Putnam, 1958, 397 and reminiscent of Rosalyn Deutsche's less forgiving phrase, "the ideology of utility," in her "Uneven Development: Public Art in New York City," *October* 47 (Winter 1988) 51.

15. "Ideal House" design by Perry M. Duncan in *House and Garden* (March 1938) 54.

16. *Home Beautiful*, 93, 10 (October 1951) 200.

appreciated, rather, for this underlying impression of excess. Any number of references to the theme hinted at or baldly stated this sense of luxury on the cheap. A client of Neutra's, for instance, repeated the very same logic articulated by Pittsburgh Plate Glass to explain to readers of *Sunset* that the taste of luxury was as gratifying as it was illusory. Describing her "four-courter": "Does it all sound big and luxurious? It isn't really. Ingenious arrangement gives us the illusion of unlimited space, but the yardstick tells a modest story."[17] While practicality humbly submitted to financial measures, luxury was routinely found in an immoderate sense of space. A judgement of extra space on the part of the homeowner, especially if it didn't cost anything, was like a dollop of luxury in the lap of practical reasoning. As a result, at the core of much of the functionalist rhetoric surrounding the modern house at mid-century is an aesthetic preference of extravagant uselessness, an ever-present perception of space to which no practical task could be assigned. The house might be bought by the yard but it was enjoyed by the illusion.

In this sense, spaciousness was ornamental. Like so much other twentieth-century ornament, it was modeled on upper-class architecture but produced cheaply enough for middle-class consumption.[18] Unlike other ornamental programs, though, this one was embraced by leading modern architects as well as by their imitators. Looking back on formative components of *The Suburban Myth*, Scott Donaldson noted that although the modernist-derived "contemporary style" abjured added ornament, "the suburban homeowner retained the greatest outside ornament of all,

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17. *Sunset* (November 1943) 16. Yet another version of this logic also confessed extravagance but treated it as an investment with generous dividends: "But even if quantities of glass are something of a luxury, most people seem to feel that it is one with an abundant return." In Elizabeth Mock, *If You Want to Buy a House*, 1946, 28. *House Beautiful* explored the more candid end of the spectrum with an article entitled: "The American Dream: as much luxury as possible--for as little money as possible." 92:6 (June 1950). Rudofsky thought that space in particular was the modern-day luxury: "There is one thing, however, which the rooms of distant epochs had that ours haven't got: the comfort--or, as we say today, the luxury--of space." In *Behind the Picture Window* (New York: Oxford University Press, 1955) 175. While *Forum* thought it had something to do with the continued effortless performance of daily tasks: "These houses are smaller, not only because of present inflated building costs, but because of the nation's continuing change in social character. What is sought in even the most minimal is not mere practicality, but smallness with a new servantless luxury." In "40 houses," *Architectural Forum* (April 1948) 93.

18. Mock explained: "Another trouble with small houses is that they're often not really small houses at all, but shriveled copies of pretentious mansions. Grandeur reduced becomes absurdity, and the Little King rarely cuts a regal figure." Mock, *op. cit.*

the front lawn." It was, he thought, a "vast waste space" always visible through the picture window.[19] Interior spaciousness, acquired mostly through outward views to open spaces, became popular, in no small part, because it appealed, like more conventional sorts of embellishments, to social aspirations. Rather than serving a minimal conception of housing needs, then, spaciousness was a powerful form of upward mobility couched in aesthetic terms. To the extent that a view provided a sense of space previously available only to the wealthy, it could suggest distance from one's own middling social status.[20] A view, particularly a prospect, meant one had climbed higher on the ladder of success, a nearly literal visualization of social altitude.

With increasing professional acceptance, the idea of an affordable luxury or a practical excess became no more an oxymoron than spaciousness in small places. With the separation of the ruler and the eye, architects could boast a perceptual maximum rather than prepare clients for the existence minimum. If spaciousness wasn't exactly necessary, it was, nevertheless, unnecessary to forego. As a result, one of the most recurrent themes of domestic architecture at this time, was the modest house with the great view. "Small bedroom, big window," was a common formulation. "A little house with a Western look" referred not to the style of Neutra's Bonnet house but to the house's resemblance to a man who "gazes westward across the coastal plain to the sea beyond." [Fig. 5.1] Manufacturers translated this logic into formulas like "Less Output for Outlook," in an advertisement for Ponderosa Pine Woodwork windows.[21] In a special issue on "good contemporary design" for small house owners, *Architectural Record* described a house by Keck and Keck as "Broad in Vision though Narrow in Land." Only a little sheepishly, the editors

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19. Scott Donaldson, *The Suburban Myth*, (New York: Columbia University Press, 1969) 71. Though usually regarded as a dilution of modern ideas, "contemporary" style was consistent with modernism at least in its rejection of applied ornament, in theory if not always in practice. Figuratively, at least, the front lawn was a miniature and wholly unproductive landscape which completed the physical basis of the villa ideology. See, for example, J.B. Jackson, "Ghosts at the Door," *Landscape* and James Ackerman, *The Villa*.

20. "Although the owners were in debt, the houses looked free and independent," was Charles Abrams's formulation in *Forbidden Neighbors. A Study of Prejudice in Housing* (New York: Harper, 1955) 143. See also Rakoff, *op.cit.*: "A good home life was judged [by the middle class] to be one that compensated for the problems of one's life with others in the outside world."

21. *House and Garden* (August 1947) 75. *Architectural Record* (September 1948), 103. *Architectural Forum* (October 1948) 139.

added that this was not actually a small house but was included because it had important lessons for the small house, which, it seems, couldn't be better illustrated with a real one.[22] [Fig. 5.2] The thought that a large house could exemplify some problems of size encountered in small houses reinforces the interpretation that spaciousness involved the recognition of economic or class distinctions in visual experience simultaneous with a desire to level them.

In this light, the separation of the senses, which, according to Richard Sennett, accelerated in the nineteenth century with increased use of plate glass, was only a first step.[23] The subsequent step involved finding for each sense an economic sphere of activity. As it developed in architectural discourse, the eye was invited to dwell in relative luxury while the body, typically equated with labor exchanged for wages, knew only thrift and good sense. Though ostensibly the same space, the ruler and the eye evaluated the small house in terms of fiscal responsibility and unearned pleasure, respectively. In a 1946 issue on "The Architect and the Housing Crisis," *Progressive Architecture* reported that this uncoupling of visual desires and economic means had become commonplace: clients routinely asked for more than they could afford. Such habitual demands could be satisfied, architects argued, by visual arcs spanning both plan and view. In this example, "the relation between the living room and the front door creates an illusion of almost endless space; for, from the door, the eye travels through the entry, across the diagonal of the living room, and on through the great corner windows out to the terrace, lawn, and trees beyond." The eye was somewhere in the forest canopy before the body had even made it past the threshold. Rather than being disconcerting, however, the disjunction was welcome. The body, almost motionless at the door, had assessed, in terms of energy or work, the cost of space--minimal--while sight, apparently without effort or delay, sailed through the house to perch among trees of

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22. Small House Study, *Architectural Record* (September 1948), focused on how to bring the "comforts, convenience and security of good contemporary design" to small house owners. The theme continues today with "Small House, Big View" by T.Nakamura, *A+U* 243 (December 1990) 40-47.

23. In "Plate Glass," cited in previous chapter. Crary describes the separation of the senses in terms of the scientific mapping of senses that function independently of the organism they serve as well as each other, in chapter 3 of his *Techniques of the Observer*, *op.cit.*

indeterminate ownership.[24] [Fig.5.3-5.4] In other words, the alienation of perceptive and other faculties, one from the other, was taken up quite enthusiastically in architectural circles as a means to democratize formerly high-end residential values and, thus, resolve class conflict in housing aesthetics.

Biological Compensation

> The compensatory functions of a product constitute some of its most basic appeals.
>
> Ernest Dichter, 1964[25]

The glass wall and views through them did more than compensate for the misfortune of being merely middle class. They helped to improve or at least stabilize life in a modern society. Since Simmel, sociologists had been explaining how modern life fragmented and decentered the self. The self, it should be noted, did not take this lying down and sought to balance these effects in any number of ways. Mass production itself sometimes provided an answer, allowing a vast array of goods and services to fill in the increasingly apparent rips in the fabric of the soul. But nothing at the time, or indeed since the eighteenth century, ameliorated modern life more effectively than visits with nature. Nature was therapeutic; an authority no less than "Dr. Modern" reported in 1922: "We are discovering the medicinal beneficence of nature."[26] Having a daily dose of it, in the privacy of one's own home, rather than shared with the same rabble to be escaped, was even better. In a 1949 issue dedicated to house design, Arthur McK. Stires, a contributing editor at *Architectural Record*, echoed these thoughts. He spoke, he said, from a client's point of view. To help architects recognize a modern client, Stires described him as a man who finds respite in a fine view:

> He has demonstrated a desire to live a simpler, more rational life in his home; he has looked to his home for an antidote to the tensions and frictions of modern life; he has

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24. "House in Atherton California," *Progressive Architecture* 27:6 (June 1946) 54.

25. *Handbook of Consumer Motivations. The Psychology of the World of Objects.* New York: McGraw-Hill, 1964. 404

26. In Weymer Mills, "Eating out of Doors," *House and Garden* (June 1922) 44.

developed a fondness for the outward look, and found serenity in broad vistas of sky and earth.[27]

A more specific biological argument underpinned Stires's idea that views of sky and earth were prophylactic. It was based on the widely reported observation that the "frictions of modern life" were found mostly indoors. Recent studies, reported *Architectural Forum*, revealed that "urban man spends 88 per cent of his day in an artificial atmosphere," "suburban man" did little better, and even "rural man" was inside half the time.[28] Even worse, the character of modern work involved detailed, close-up work: "Today we spend the greater part of our time indoors and at tasks, such as reading, that are exacting for the eyes and where our entire environment is more artificial than it is natural." The conclusion hardly needed stating: "The eye itself, of course, has suffered grievously in this world of close vision." This situation grated on the evolutionary knowledge that humans were designed, so to speak, to be outdoors, scanning wide swaths of sky and moving freely about the earth. Long ago, when "most activity took place outside," editors at *Forum* conceded, cramped colonial houses were tolerable.[29] With the unique pressures of the twentieth century, however, only a house that facilitated connections with the exterior world could compensate for frictions found inside.[30] Indoor living was thus a biological travesty and

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27. "Home Life and House Architecture," *Architectural Record* (April 1949) 104.

28. *Architectural Forum*, (November 1948) 91. Such findings are a more precise way of restating arguments that underscored the late-nineteenth-century "return to nature." See also, James Marston Fitch's sections on "Historic Changes in the Visual Task," "The Human Eye and Its Habitat," and "Man-Made Luminous Environments" in his *American Building. The Environmental Forces that Shape It*, [1947] (New York: Schocken, 1972). For example: "Instead of the deep views of nature, urban man moves in the shallow frame of man-made perspectives. Aside from the fact that most modern work lies in the field of near-vision, there is the added problem that most of our leisure time is spent in the same kind of unnatural habitat. Our horizon is usually limited by the surfaces of a room ... or a very limited perisphere ... " (p.97).

29. *Ibid.* 150, 119, 150.

30. The idea of a "'frictionless' architecture" was internalized in modern architecture as an ideal, though rarely achieved in a building, since the first years of this century. In "Sert's concept of living," Stanford Anderson considers Sert's achievement to be instead an acceptance of the conflicting and "confounding dictates of human activity, material, and technique" and the consequent calculation of a "desirable coefficient of friction within the total work." Crediting Sert with the realization that a building will inevitably mediate users' concerns imperfectly and, as a result, "make demands upon those who observe it or enter into it," Anderson extends his insight from the formal relations internal to building to the human needs pertaining to building in general. It is this latter desire to have buildings minimize frictions generated outside of them

generated a demand for compensation that was opposite in character.[31] Even if the other senses had to remain indoors, at least in the modern house, one's eyes could range over the landscape.

A version of this logic could usually be found in the "Modern Living" section run by *Life* magazine, which often found therapeutic value in the lifestyle options it reviewed. A 1953 issue, for instance, described a small house designed for Mr. R. Russell Munn of Akron Ohio, who worked during the day as a librarian. Not surprisingly, after work he enjoyed nothing so much as a good gaze: "Mr. Munn's chief pleasure is the view. Because he spends so much of his working time scanning fine print, he likes 'to see for miles' when at home." The accompanying photograph shows Mr. Munn seated in a comfortable chair looking out the window, apparently on the mend.[32]

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that I address. See "Sert's concept of living," *Architectural Design* (August 1965) 576.

31. The tendency to find compensation symmetrical to the injury may reveal more about our critical needs and the aesthetics of logic than it faithfully describes a recurrent pattern. Nevertheless, it is a familiar observation among reliable critics. Both Walter Benjamin and Siegfried Kracauer thought the increased dullness of factory work and urban life demanded compensation in the private sphere in terms of, in the one case, a more and more fabulous interior life and, in the other case, in a variety of urban distractions, like cinema. See Benjamin's "Paris, Capital of the Nineteenth Century," and Kracauer's "Cult of Distraction: On Berlin's Picture Palaces" [1926]. Thus, Garrett Eckbo, Dan Kiley, and Charles Rose were in good company when they wrote: "Since most production in the city takes places under roof, indoors, it is obvious that urban recreation must emphasize the out-of-doors." In "Landscape Design in the Urban Environment," *Architectural Record* (May 1939).

32. *Life*, 34:24, (June 15, 1953) 119. Fitch also puts forth the same argument: "When the desk worker or the student looks out the window instead of down at his work, he is not 'wasting time': he is seeking psychich as well as optical relief from a highly structured and unnaturally monochromatic experience," *op. cit.*, p.98. The *Encyclopedia Britannica* noted a similar phenomenon but attributed it to the increasingly visual nature of society: "The motion picture increases interest in things visual, and the radio is replacing printed words as a means of setting forth ideas. The quantity of literature now produced is so enormous that men are beginning to lift their eyes from printed pages and look about them with growing enthusiasm for beautiful surroundings and a slowly awakening critical sense." "Architecture," v.2 (1946) 287.

Urban Compensation

> The epitome of today's industrialized environment, as well as *the* grand problem in practical human biology, is our present city
>
> Richard Neutra, 1954[33]

Mr. Munn might not have noticed it from where he sat, but he was not alone. According to sociologists and urban historians, millions of Americans in the 1950's sought the restitution in space that architects had been espousing for years. The "desire for spacious living," which drove city workers to seek relatively remote residences, was thought to underpin the most important shift in settlement patterns of the entire century, even in the absence of specific mention of glass walls or views.[34] Admittedly *facilitated* by the automobile and government highway and mortgage programs, the "sprawl" in suburban sprawl was, to a significant degree, *motivated* by the search for spaciousness. As sociologist David Riesman observed: "People have been moving to the suburbs in many cases in pursuit of an inchoate dream of spaciousness." Related no doubt to that other reverie, the "American Dream," spaciousness provided a sense of release not only from the city, to which the suburbs were still bound anyway, but "from indoors" as well, Riesman wrote.[35] Mumford, too, who had earlier predicted the demise of the single-family house, thought the search for "a spacious leafy suburb" was a direct consequence of the lack of urban open space in American cities.[36] Citizens sought privately what the collective had failed to provide.

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33. Neutra, *op. cit.* 337.

34. Edgar Hoover and Raymond Vernon. *Anatomy of a Metropolis. The Changing Distribution of People and Jobs Within the New York Metropolitan Area* (Cambridge, MA: Harvard University Press, 1959).

35. David Riesman. "The Suburban Sadness," in William Dobriner, *Class in Suburbia*, (Englewood Cliffs, NJ: Prentice-Hall, 1963) 399.

36. "Landscape and Townscape," in *The Urban Prospect*, New York: Harcourt, Brace, 1968, 80. Originally published in *Landscape* (Winter 1960-1961).

In Western culture, cities have long been both demonized and exalted.[37] Suburban culture, for the most part, was based on the former. In the eighteenth century, the pleasures of aristocratic country life were founded, as Raymond Williams describes them, on a pointedly urban formulation of what he called generally "counter-pastoral." Since then, urban fears have followed pastoral dreams like a shadow, the city and industries born of urban capital bringing to the heart of the pastoral idyll a note of apprehension. The city was never actually rejected, Williams points out, since it was where the fortunes were made that bought leisured rather than laborious country living.[38] Instead, city life was eased and made more tolerable by proximity to everything the city wasn't. Any number of nineteenth-century figures agreed that easy access to nature compensated for the coercions and subversions so apparent in the city.[39] This country-city "structure of feeling," as Williams calls it, persisted and perhaps propelled the extension of "country living" to the middle class in the twentieth century. "The house is a compass," wrote H.G. West in 1951: it points simultaneously toward where we want to go and away from where we have been. Once we have been through "the mechanical rigors and compulsive collective disciplines and omnipresent crowds of modern life," we will know why "the modern house is oriented toward space and health and isolation." To a compass, east and west are as inseparable as they are irreconcilable.[40]

Spaciousness, too, only made sense relative to a less spacious situation, again, the city. It was a form of urban therapy and a view, as argued above, was the basis for the spacious. It was the solution to the problems posed by the city. "The great danger in the United States today is the continuing destruction of the outdoors," wrote Edward Hall in 1966, reiterating one long-standing

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37. Warren Sussman describes urban enthusiasm in his essay, "The City in American Culture," *Culture and History. The Transformation of American Society in the Twentieth Century*, New York: Pantheon, 1984. In regard to the current discussion, it is interesting that the key text describing anti-urban sentiment, Lucia and Morton White's *The Intellectual Versus the City*, dates from 1962.

38. See especially chapters 3 and 5 in *The Country and the City*, (New York: Oxford University Press, 1973).

39. For William Morris, for example, nature compensated for urban life. Discussed in Maynard Solomon, *Marxism and Art*, (New York: Knopf, 1973) 88.

40. In "The House is a Compass," *Landscape* (Autumn 1951), 27. The urban critique is Mumford's.

critique of urban growth. Though no friend of sprawl, Hall nevertheless recognized the situation it responded to: "Solving the problem of the outdoors and man's need for contact with nature is complicated by the increasing incidence of crime and violence" that seemed bound to the urban condition.[41] But a view of some open space seemed to contradict, quite literally, the urban and suburban appetite for land. To the extent a view was unpopulated, it could relieve the tensions of an increasingly crowded and ever more overwhelming city.[42] Crime could appear far away when not even potential criminals were in sight. Further, a landscape view could seem all the more "natural" to the degree that the criminal behaviors generated by intensifying urban densities were deemed "unnatural."[43] Even the general sense of generous space within the house was based on a contrast with the urban option: when suburbanites recall the city apartments they had left behind, reported Harry Henderson, "their 50 x 100-foot plot seems to be the size of a ranch."[44]

While it is important to note that by 1950, in the more critical studies at least, "suburbia replaced the city as the villain in the rural-urban melodrama," suburban growth barely subsided.[45] This was due, Mumford thought, to a peculiar and "persistent residue of the curious pioneer belief in space and mobility as a panacea for the ills of social life."[46] The blurry shape of these beliefs did not

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41. In *The Hidden Dimension*, (Garden City: Doubleday, 1966) 168. Hall was actually quite even handed, even troubling to explain the brighter side, physiologically speaking, of "The Biochemistry of Crowding."

42. Harlan Douglass thought that suburban growth balanced urban growth, rather than directly challenging it. "A crowded world must be either suburban or savage," he wrote in *The Suburban Trend* [1925] (New York: Arno, 1970) 327.

43. Disease has long been a favored metaphor for the city. The relative nature of such judgements should, again, be stressed. Recall David Lowenthal's claim, mentioned earlier, that: "To the city dweller, anything that is not geometrically arranged may seem in the realm of untouched nature." David Lowenthal, *Landscape* (Winter 1962) 201.

44. In "The Mass-Produced Suburbs - Part I," *Harper's*, 207:1242 (December 1953) 27. Henderson notes also that the new suburbs were economically dependent on city centers. In terms of a visual economy, he argues that the architectural monotony put a premium on interior decorating and a sharper focus on the activities of others.

45. Donaldson, *op. cit.*, 36.

46. Mumford continues that the suburban drive seems directed toward open space but, "this spatial openness, on close examination, proves to be social enclosure and construction." In "The Future of the City," *Architectural Record* (December 1962). Cited in Donaldson, *op. cit.* 77.

diminish their ability to drive behavior. Though only "an inchoate dream," as Riesman said, spaciousness delivered one from a host of ill-defined but still troubling worries: "And ordinarily," he continued, "this release has more than compensated for losses in urban qualities which are difficult to sense or describe--qualities of possibility, often, rather than of actual use."[47] As part of the antidote, spaciousness could remain as nebulous as the urban critique which accompanied it to the countryside. It was a vague dream, but, as the demographics of the period prove, a motivating one nonetheless.

Riesman's vocabulary of spatial compensation seems to suggest that either he or those he interviewed were keeping up with architectural discussions, where a number of indistinct urban anxieties had lent urgency to the discourse on spaciousness since early in the century. If architectural dreams of sylvan scenes descended from Picturesque-era landscape meditations, they also perpetuated them, in part, by adapting them for mass production and middle-class consumption. Centered on the creation of visual space borrowed from distant vistas, spaciousness retained the ideological scope of a landscape view while reducing the actual size, and cost, of the land overlooked. And, if one's house could seem larger than it actually was, then perhaps it might similarly be seen as being further from the city than it really was. A wide view could create not only interior spaciousness then, but contribute as well to the perceived distance from the spaces, behaviors, and classes of citizen ordinarily associated with the city. A view of nature, in other words, was the visual correlate in architectural periodicals of suburbanization.

All of this imaginative power was quite useless, though, when fragments of everyday life got in the way. As journals sensibly noted, "You can't effectively use large, open window areas unless there's something to look at outside other than the next-door neighbor's clothesline or garbage cans."[48] Overbearing signs of inhabitation were not part of the rationale of suburban migration. The solution in such situations was not to relinquish one's hopes for a landscape view but to

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47. Riesman, in Dobriner, *op. cit.*, 399.

48. *Better Homes and Gardens*, (May 1953) 72.

screen out the human in favor of the natural landscape, to find a view by framing one. Again and again, designers proposed screening strategies in order to extend the occupant's "little visual empire," a domain endangered by manifest artifice and by gazes returned from the landscape.

This seemingly crippling vulnerability did not, however, prevent the widespread assimilation of the values represented by the domestic enjoyment of splendid views. Homeowners read monthly about ways to open up vistas despite the restrictions of a small site and similarly inclined neighbors. Only the most egregious cultural trespasses needed to be screened to elicit impressions of a natural landscape. Explaining the relatively low threshold set for nature, David Lowenthal wrote: "Where landscapes are not patently marred by man, it is all too easy to assume that they are primeval. To the city dweller, anything that is not geometrically arranged may seem in the realm of untouched nature."[49] The "natural orientation" invoked in descriptions of modern houses often was triggered by seeing from one's window relatively more leaves and lawn than macadam and chrome. Neutra illustrated this logic with the example of his own house, where he had lived "twenty years amidst neighboring structures, without seeing them from ... extensive windows."[50] The view onto a spacious, but ideally uninhabited landscape--in Neutra's case, a manmade urban reservoir two miles from downtown Los Angeles--provided what he called the "psychological spaciousness" necessary to overlook the diminishing physical dimensions of personal space that came along with urbanization. The openness of the modern American house was predicated on social isolation and, to some extent, degrees of social isolation could be assessed by the apparent depth of the uninhabited view. Yet, as many aestheticians have noted, the love of nature is an essentially metropolitan emotion. Fascination with a deep natural view is then a kind of social myopia.

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49. David Lowenthal, *Landscape* (Winter 1962) 201.

50. Neutra, *Mystery and Realities of the Site* (1951) 4.

Urban Consequences

> The splendid sites which transformed generations of modest houses into a kind of arcadian paradise have mostly been used up. . . . It is worth wondering where the sylvan past went.
>
> Charles Moore, 1979[51]

> Shortage of space has original and new characteristics as compared with other kinds of shortages, whether ancient or modern. . . . It introduces a contradiction between past and possible future abundance on the one hand and actually reigning scarcity on the other.
>
> Henri Lefebvre, 1974[52]

If perception becomes reality, then the search for spaciousness was not without its consequences. One fairly common result was that suburbanites found that social ills were following them out of the city. Citizens of Westport, CT, for instance, tried in 1961 to put a halt to further housing development, which, residents felt, would narrow the gap between country and city. Along with the steady flow of new residents, they found, "the sins of the cities are also moving outward." As *Architectural Forum* put it, "Defending the Dream," was the political phase following the pursuit of Riesman's "inchoate dream."[53] At the same time, as urban historians have pointed out, suburban flight exacerbated urban problems by draining wealth from the nation's cities, worsening the conditions being fled and, as a result, revalidating the flight. Though he recognized that an inflexible "biological function" lay behind the "demand for a verdant refuge," the proliferation of private and diminutive open spaces in the suburbs, Mumford warned, removed an important socializing function of open space and further aggravated the problems of the city.[54]

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51. In *Bay Area Houses*, Sally Woodbridge, ed. (New York: Oxford University Press, 1979) 265.

52. In *The Production of Space*, [1974] (London: Basil Blackwell, 1991) 333.

53. "Defending the Dream," *Architectural Forum* 114:1 (January 1961) 80-83. The entire issue is dedicated to the changing suburbs.

54. Mumford, *op. cit.*, 80. Quite rightly, then, Todd Gitlin's history of the stormy sixties begins by reviewing dislocations wrought by the rapid suburban growth of the prior decade in a chapter appropriately titled, "The wide open spaces of affluence." In *The Sixties: Years of Hope, Days of Rage*, (New York: Bantam, 1987).

As the very form of the suburb reflects distrust of the city at the level of the settlement, so the view, that is, private visual spaciousness, encouraged, at the personal level, a kind of urban indifference. Precious little in the 1950's lessened the growing urgency of urban problems like distance from them, since urgency, by definition, bears some relation to perceived proximity: perceptions of proximity and distance in the physical environment have a perspectival effect on judgements of relevance.[55] Thus, though surely not the intention of any individual architect, repeated advocacy of perceptual detachment from the city may have contributed, at least, to indifference to the city: private spaciousness was founded on the repeated encouragement to remedy in the private sphere tensions generated in the collective or urban sphere.

Since the production of architectural spaciousness involved the repeated encouragement to heal an urban and economic wrong with a visual corrective, it implied as the site of social change the realm of individual psychology. Appeals by designers to human psychology were, in fact, rife at the time. Elizabeth Mock was in good company when she repeated a version of the logic of the ruler and the eye, explaining that "the difference between largeness and smallness is a subtle matter, often better measured by human psychology than by feet and inches."[56] The forces generating the constraints in the first place were not directly addressed as much as were the psychological effects of constraint. Psychological accommodation could resolve at least part of the tensions generated by urban pressures rather than, for instance, economic redistribution. Illusion therapy was prescribed far more often than any directly political course of action.[57] This

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55. Perceptual geographers have studied precisely this phenomenon. Judgements of familiarity and relevance influence perceptions of quality and subjective preferences. In most cases, distance and relevance are inversely proportional. Peter Gould, for example, defines "distance decay," as the attribution of relevance that declines "with our subjective estimates of how the places are away from us." In *Mental Maps*, (Harmondsworth: Penguin, 1974) 41-2. See also, Terry Daniel and Joanne Vining, "Methodological Issues in the Assessment of Landscape Quality," in Irwin Altman and Joachim Wohlwill, eds. *Behavior and the Natural Environment.* (New York: Plenum Press, 1983) 39-84.

56. Mock, *op. cit.*, 33. Mock is in good company here: size alone cannot ennoble a design; "The fact is, that the apprehension of the size of natural objects, as well as of architecture, depends more on fortunate excitement of the imagination than on measurements by the eye." John Ruskin, "The Lamp of Power," p.72.

57. This is not intended to argue whether or not architecture is even an appropriate platform for a confrontational politics. It is rather to point out that architecture may have political effects. A similar point regarding American public behavior was made by Anthony Heilbut. German emigres, Heilbut wrote, had

was not exactly what Arthur Levitt had in mind when he said that granting the working class a modicum of material benefit would prevent it from seeking its measure of well-being in a different political system.[58] Nevertheless, the point seems well-taken, if not particularly original: architecture can avoid revolution.

Discussions in architectural publications of generous, private and unpopulated landscape views provided a visual correlative for the sociological phenomenon of upward mobility. This was part of its powerful appeal. As intimations of luxury adhered to perceptions of spaciousness, they reinforced a cultural inclination to equate poverty with crowding and, by contrast, wealth with proximity to open space.[59] As physical characteristics of the environment gather ideological charge, they may magnify already incongruent economic interests and obscure what might have become paths toward common ground. In this way, increasingly distinct physical environments can be seen to reinforce differences based on other reasons, such as economic disparities.[60] This was not at all a new development. In 1950 the historian Henry Nash Smith concluded his influential history of the myth of *Virgin Land* with the observation that "agrarian theory" had political consequence: "The covert distrust of the city and of everything connected with industry that is implicit in the myth of the garden has impeded coöperation between farmers and factory workers in more than one crisis of our history, from the time of Jefferson to the present."[61] If architecture did not invent this condition, the mid-twentieth-century emphasis on private views

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noticed a therapeutic aspect to American political debates, namely, that "political disputes were domesticated into personal disagreements," by a kind of redemptive grousing. In *Exiled in Paradise*, (New York: Viking Press, 1983) 67.

58. It was not at all uncommon to hear, for example, that home ownership was "a bulwark against the invasion of alien systems of government." In John P. Dean, *Home Ownership: Is It sound?* (New York: Harper, 1945) 4.

59. Edward Hall finds these equations still operative. *Understanding Cultural Differences*, (Yarmouth, ME: Intercultural Press, 1990).

60. This is not the same as a collective attachment to "place," as described in some studies of human environment, since, in this instance, the quality of the place is determined beforehand, and unique characteristics of a location may actually be altered to conform to the desired image.

61. Henry Nash Smith, *Virgin Land*, (Cambridge, MA: Harvard University Press, 1950) 259. See also Richard Hofstadter, *The Age of Reform* (New York: Knopf, 1955).

and ensuing spaciousness certainly drew from it--turning from the city, invoking the garden--and, in so doing, nurtured misgivings of the city.

Urban sociologist Manuel Castells also warns that advocacy of distinctive "ecological patterns of residence" may further aggravate the class differences on which they are based.

> Differences in cultural style, rooted mostly in social class and family practices, will be symbolically reinforced by the social-spatial distance and by the environmental imagery. The two worlds of the suburb and the inner city increasingly ignore each other except insofar as they develop reciprocal fears, myths and prejudices, often articulated as racial and class barriers.[62]

Though he argues that motivations for suburban flight are based primarily on matters of economics or transportation, Castells acknowledges that the repetition of popular beliefs can crystallize into social patterns. The one such "myth" he singles out is that of a "return to nature": "The distinctive function of this myth is to persuade the mass of wage workers that a degrading relation to nature experienced in the industrial work process can be compensated for by a satisfying relation to nature in 'the community.' . . . work-based discontents are registered in the community as protests about 'the quality of life and environment'."[63] Providing environmental qualities that compensated for seemingly unavoidable environmental deficiencies was a central concern of architectural modernism in American house design and a sense of generous space and continuity with nature were the key forms in which such deficiencies were addressed.

If seeking some semblance of the spacious was a response to urban growth in America, then the large windows of the modern house made it that much easier to find. Comfortably ensconced in the family living room, a modern man like Mr. Munn was free, even encouraged to find in the landscape answers to his modern tensions and urban anxieties. His expansive and private view, it seems, allowed him to overlook the diminished dimensions of his world. The increasing ability in

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62. Manuel Castells, *The Urban Question*, (Cambridge, MA: MIT Press, 1979) 385. Castells bases some of his conclusions on sociologist Herbert Gans's work on American suburbs. Engels had long before suggested that patterns of urban growth in Manchester masked for certain residents the presence of other classes in *Conditions of the Working Class in England* and *The Housing Question*.

63. *Ibid.* 388-89.

the twentieth century of the middle class to escape the city by flight to the suburbs was due no doubt to the car, a twentieth-century form of transportation that rode quite literally over municipal boundaries established, in many cases, during the nineteenth century. Nevertheless, the perception of distance, both within and around the private home, was enhanced quite explicitly with suggestions for maximizing the view out the picture window. The chain of events set in motion by the suburban search for a space-making view would not become apparent until it exploded onto tv screens in another part of the living room.

The Therapeutic Landscape

> Our hunting for the picturesque is inseparable from our protest against false society.
>
> Ralph Waldo Emerson[64]

As it has been presented here, hunting for the picturesque is less a protest than a kind of nature therapy. Therapeutic promises were central to the growth of American consumer culture and the single-family house was presented any number of times as both a key consumer good and an important site for therapy.[65] Therapeutic uses of landscape vary greatly due to the landscape's malleability, on the one hand, and, on the other hand, its utter indifference to human activity. The cultural landscape bears signs of human occupation and changing it can be a form of gratifying self-expression. Typically, however, only the natural landscape offers the possibility of submerging personal problems in what one landscape historian has called "the transcendant cycle." Because the transcendent power of nature is usually evident only with landscapes that are "immense . . . dominating . . . continual," seeking therapy usually meant leaving home, at least for

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64. 'Essays' in *Works*, III, 171 .

65. Joseph Mason ranks the consumer orientation first in terms of characteristics of 1950's' residential architecture, in Mason, *op.cit.*, 69. Christopher Lasch's *Haven in a Heartless World* discusses the therapeutic value of family and home. In *No Place of Grace*, historian T. J. Jackson Lears traces the therapeutic orientation of American consumerism (New York: Pantheon, 1981).

the afternoon.[66] But, as a desired characteristic of middle class housing that may be reflected in house costs or purchased through design services, a landscape view may be further understood as a new good directed at compensating citizens for their loss of autonomy in an urban and corporate economy. The view, in this sense, may well be the crowning good in the history of therapeutic consumption.

The idea of a therapeutic landscape, in particular, matured in the United States during the nineteenth century. Urban parks like Central Park in New York City were built in large part for their promises of refreshment for the urban masses. Rural cemeteries like Mt. Auburn Cemetery in Cambridge, MA, though built for the urban dead, were also thought to offer powerful restorative benefits to the urban living. Throughout the declarations of leading champions of urban access to nature, such as Frederick Law Olmsted or Dr. Jacob Bigelow, runs, as Kenneth Hawkins puts it in his study of *The Therapeutic Landscape*, "the idea that contact with natural or naturalistic scenery through residence, recreation or work, benefited mind and body."[67]

In the United States, such reasoning reached a consensus after about 1840 and regularly accompanied the selection of sites for asylums. Sounding uncannily like an advertisement for a twentieth-century exurban plot, the site for the Pennsylvania Hospital for the Insane was chosen because it united "the advantages of a country atmosphere with the peculiar conveniences of the city."[68] The advantage of country atmosphere convenient to the city was only partly for easy access to urban infrastructure and services. More importantly, the asylum served the city; it

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66. Christopher Salter, "New Views of Space: The Los Angeleno Use of Landscape as Therapy," *South Dakota Review* 19:1-2 (1981) 68-81.

67. Kenneth Blair Hawkins, *The Therapeutic Landscape: Nature, architecture, and mind in nineteenth-century America.* UMI, University of Rochester, 1991, 2. Hawkins's particular acheivement has been to demonstrate that this line of thinking may be traced through the late-eighteenth century in Scottish philosophy, English landscape gardening and English asylum reforms. For more on the restorative value of seeing a natural landscape, see Walter Creese. *The Crowning of American Landscape. Eight Great Spaces and their Buildings* (Princeton: Princeton University Press, 1985) 171-77, and Albert Fein, *Frederick Law Olmsted and the American Environmental Tradition* (New York: Braziller, 1972).

68. *Ibid.* 103.

repaired those nerves frazzled by urban pressures by immersing them in a contrasting environment, nature. An 1854 article in the *American Journal of Insanity*, Hawkins reports, explained: "A beautiful landscape excites in the soul salutary emotions and gives some repose to the mind in withdrawing from its preoccupation." Nature is the best medicine, claimed another testimony: "These very beauties of scenery, elegancies, and comforts, are in reality the most efficient means to alleviate or correct mental alienation."[69]

Common to most asylums was the association of visual expansiveness with privacy, which, as Hawkins notes, was a programmatic pair that Olmsted, too, worked to incorporate in his landscape designs. Moreover, these needs entailed design changes. Hawkins cites arguments dating from the 1850's that call for asylums with single-loaded corridors, "the external windows of which should be large, and have pleasant views from them." The higher cost of large windows should be reserved, it was thought, for those most disturbed and least able to labor in the garden. Despite their disabilities, large windows would provide garden views for this "most excited class of patients."[70] Such reasoning found its way to horticultural literature, which is one place that Downing encountered it. His books on architecture and landscape gardening alike rountinely advised "scenic antidotes" to the "mental hazards of modern life," as Hawkins wrote. The advantages of a rustic environment, and the houses that were to harmonize with it, Downing wrote in *Cottage Residences*, were essentially therapeutic: "the too great bustle and excitement of our commercial cities will be happily counter-balanced by the more elegant and quiet enjoyments of country life."[71]

The practice of escaping from the city as a way to cope with it has more than survived into the twentieth century. It has become an industry. Resort communities, weekend homes, leisure

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69. *Ibid.* 41-2, 113, from the *American Journal of Insanity* (January 1854) and the *Proceedings of the Pennsylvania Hospital for the Insane* (1856), respectively. Exposure to nature, at the time, included gardening chores.

70. *Ibid.* 116, 143.

71. In *Cottage Residences* (1842) 164, cited in Hawkins, 273-74.

travel, not to mention suburban development, all share an interest in exchanging the urban environment for a more "natural" one, that is, for calculated periods of time. Redressing psychic imbalance is a very common goal. Although there is compelling scientific testimony regarding the need for contact with the forms of nature, providing it for the millions in controlled doses is very much a social endeavor in a country where every cubic foot of landscape has been under management for some time. Discussions of residential architecture focused intensely on ways to provide the benefits of a therapeutic landscape in the relatively small spaces of suburban plots. The full therapeutic spectrum had to be recreated on a small site and activated, when weather or weariness required, by simply viewing it. This accounts for some of the more significant changes in landscape therapy that so regularly appeared in buildings and books on architecture.[72] [Fig. 5.5]

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72. For example, the Serulnics wanted, in the words of Neutra: "a spacious contemporary hillside house with a really dramatic view--but their budget was limited." The site was a difficult one he reported, with nothing to recommend it but its view. Still, Neutra recalled that the clients "wanted it badly enough so that, in the long run, they overcame all obstacles." Their final reaction, according to Neutra: "the owners receive a great deal of relaxation when leaving the hustle and bustle of human activity in the city below, and enjoy the peaceful landscape spread below them." Ironically, that peaceful landscape is the city of Los Angeles, most dramatically viewed at night when the hustle and bustle of human activity would be rendered as so many silently twinkling lights. In "Los Angeles House: Great Style on a Budget," *Architectural Record* 119:6 (Mid-May 1956) 127-29. Just one more earlier example: "Sick men through the ages have besought their nurses to move them to the window so that their tired eyes might gather up strength from the hills and the gentle moiton of trees and waving blossoms. . . . So too, each one of us at the end of many months of labor at our chosen tasks look out expectantly throught the eye's window upon vacation scenery." In "From the Inside Looking Out" Mrs. George Draper, *House and Garden* (June 1927) 140.

Other developments in the provision and use of a therapeutic landscape, all of which will be discussed in more detail in other chapters, involved: design adaptations to heighten the benefits of landscape views; strategies for the mass production of landscape views; acquisition of views as a form of consumption, that is, purchased as a good or service from those prepared to provide them; and stabilization of views as a permanent architectural feature, or, in the language of commodification, a "durable good." This last adaptation allowed urban workers to live with "mental alienation" on a daily basis rather than recover from it occasionally, as in the nineteenth-century asylums described by Hawkins, *op.cit.*

Compensation for Professional Services

> One reason for hiring a good architect at this point is that he can help you find ways to use what appears to the unimaginative to be *undesirable* land.
>
> Katherine Morrow Ford and
> Thomas Creighton, 1954[73]

> Architects today seem to have left but this one thing in common--something to sell: to be exact, themselves.
>
> Frank Lloyd Wright, 1957[74]

Underlying all the forms of compensation outlined above is a sense of urgency. Change, all seemed to agree, was rapid, intense, and pervasive. Even if modernity is itself defined as a perpetual state of crisis, the sense of urgency took on new dimensions in architecture in the 1920's. Based on her survey of debates in architectural periodicals at that time, Susanne Lichtenstein found a general perception that "the previously accepted snail's pace of evolutionary development was being overwhelmed by the onrush of modern industrial change."[75] Evolution, which governed physiological response, was based at the time on the idea of incremental adaptation to change, while environmental change itself, which governed physiological stimulation, was abrupt. Somewhat later, Neutra put it: "There is no time for slow biological adjustment to novelties which at any moment may become technologically feasible. The velocity differential of these two processes is fraught with dangerous friction."[76] More than one defense of

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73. *Quality Budget Houses*, (New York: Reinhold, 1954) 13.

74. In *Frank Lloyd Wright: Writings and Buildings* Edgar Kaufmann and Ben Raeburn, eds. (Cleveland: Meridian, 1960) 325, from Wright's "A Testament" [1957].

75. Susanne Ralston Lichtenstein, "Editing Architecture: Architectural Record and the Growth of Modern Architecture, 1928-1938" Cornell University Ph.D. August 1990, UMI Dissertation Services, Ann Arbor, MI. 141 Whether this was more so in the twentieth than the nineteenth century is beside the point since urgency, as discussed above, involves relative proximity not only in space but time as well. Past fears are rarely as visceral as our own.

76. Neutra, *op. cit.* 26. Neutra wrote the book out of concern that: "In spite of technological progress, or perhaps because of its spottiness, our man-made environment has shown an ominous tendency to slip more and more out of control." (p.24).

eclecticism in the early-twentieth century was based on the idea of adapting the built environment incrementally to match the process, if not exactly the pace, of evolution.

In contrast with arguments for eclecticism, modern architects claimed that global change had already taken place under pressure of historical forces. It was up to architecture either to face that fact or retreat from it. Rather than absurdly sidestep the progress of history, architecture was compelled to accommodate it. This was the basis for the many assertions that modern architecture was beyond the comparatively superficial concern for "style." *Progressive Architecture*'s "Architecture--Not Style" issue tried to make the case as clear as possible: "Modern design--design of our time--is not a style. It is a solution to modern problems in modern terms." The concern for "style" or "art" was premature in 1948, the editors thought, and should be addressed only after "the social and technical problems have been fully solved. It's time today to get down to real work on those problems, and not sit in our offices worrying about art."[77] Defining and answering those problems thus validated the modern mission; it lent a measure of reality to "design of our time." In other words, attention to the pressing problems of the modern age constituted "real work" and resulted, the editors would likely have agreed, in ontologically superior architecture.[78]

Constriction of the individual living environment was taken, as has been argued, as one of the particularly pressing problems of the day. Rapid urban growth put pressures on land and people,

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77. "Architecture--Not Style," *Progressive Architecture* (December 1948) 49. The basic argument accords with points put forth in the first meeting of CIAM in 1928, that is, that architecture is bound first of all to the exigencies of economy.

78. Many architectural discussions reflected parallel concerns. For example, Davison, "Effect of Style on Cost," *Architectural Record* 65 (April 1929) 402-09, removed the historical connotations from historical styles to arrive at the pure efficiencies of a plan. John Didwiddie believed a window is "neither modern nor traditional, but simply a means of admitting light, air, sunshine, or view" although small ones might suggest "confinement" while big ones provide "a maxium of light and view" and may suggest "a feeling of oneness with outside." Which would you choose? In "Tell Me, What is Modern Architecture," *House and Garden* (April 1940) 46. To take only one other example, in Gropius's "Eight Steps Toward a Solid Architecture," published in February 1954 in *Architectural Forum* and incorporated in *The Scope of Total Architecture* (1955), each of the eight steps involves rejecting a former preoccupation with style, addressing "the client's real needs," and gaining technical skills.

pressures which neither nature nor evolution had anticipated. Small living environments were produced by social and economic forces well beyond the control of any wage earner. The challenge to the individual's biological makeup, prepared by nature, rather wishfully in retrospect, for life on the savannah, had never been greater. With a premodern physiology precipitously placed in a novel environment, the ultimate viability of an entire species--"modern man"--was at risk. It had all finally come down, as Neutra wrote in 1954, to "survival of the race itself": "survival through design."[79]

With the stakes so very high, the foundations of architectural practice had never been on firmer ground, since architects were precisely those professionals who mediated between social function, economic constraint, and physical form. The success of modernism in domestic design in the United States was due in no small part to this dramatization of its ontological underpinnings. The sense of impending crisis refocused debate regarding aesthetic character onto an inexact yet affective social analysis, with which few disagreed.[80] Emergencies tend to keep discussions short and to make the solutions at hand attractive, particularly those that seem to answer current problems so seamlessly. The modern world was "a biological situation without precedent." Consequently, "the early treatment through tradition . . . seems now out of the question."[81] Certainly modernism introduced economic efficiencies, working with industrialized materials and repudiating the added expenses associated with ornamental extras. At the same time, I am arguing, acceptance of modernism in house design, where colonial styles were equally competitive pricewise, should be attributed at least partly to modernism's ability to address the sense of crisis it had itself swept into architectural discourse and to offer compensations for the exigencies such

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79. Neutra, *op. cit.*, 81. The differential change between, on the one hand, systems of belief and conventional practices and, on the other hand, the manmade environment, was in fact frequently cited as the cause of much of the current crisis. Jacques Ellul was, he noted, only agreeing with Karen Horney's diagnosis when he wrote: "The disequilibriation between the traditional affirmation and the new criterion has produced the climate of anxiety and insecurity characteristic of our epoch and our neuroses." In *The Technological Society*, [1954] New York: Vintage, 1964, 333.

80. While the MOMA exhibition of 1932 has been rightly described as being concentrated on formal issues, modernism in the United States was for the next two decades often defended on other than formal grounds.

81. Neutra, *op. cit.* 20.

crises wrought. Modern architecture was necessary, if not always for survival, then at least for psychological well-being. Without denying the sincerity and passion architects brought to their work, it would be naive, I think, to overlook the ideological uses to which a crisis mentality was put.[82]

Discussions of spaciousness, and views too, benefitted from this substructure of reality. Biological and economic imperatives were equally irresistible but essentially at odds with one another. It took wealth, the argument seemed to go, to live in a modern world as nature had intended, originally, for a pre-modern world. But, small spaces had become as intractable a fact as the human need for big ones. Spaciousness resolved this dilemma with the logic of ruler and eye. By separating one from the other, each could respond differently, or inversely, to the different pressures of the day. Spaciousness was biologically required but economically unwarranted. It had to be provided, but cheaply. The ruler, or, in this case, the wallet, could be pressed flat by demands of economy, but not the eye. Obeying this logic, spaciousness could be both a requirement and an extra, that is, a necessary luxury, a release from the squeeze of reality. The degree to which visual and economic reality were disjoined became a measure of modern design's success.

Modern architecture thus distinguished itself not only in terms of relatively new materials or formal traits, but also by being a necessity, not a choice. Colonial house styles could compete with modern design on the basis of simple economy but were threatened with obsolescence by remaining, as *Architectural Forum* devastatingly put it, "tight."[83] The restorative powers of modern design stemmed from its ability to render impressions of deep space with only shallow

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82. Alastair Grieg touches on this point in "Home Magazines and Modernist Dreams: Designing the 1950s House," Working Paper No.47, Urban Research Program, Research School of Social Sciences, Australian National University, (April 1995) 15.

83. (November 1948). Cliff May, originator of the Cape Cod's leading rival for style, knew that the informal and spreading quality of the Ranch House actually made it more expensive, adding material costs and extending systems."The thing about the ranch house, in spreading it out, it does cost a little more to do. So that's why it maybe became known as more of an expensive house to build than, let's say, a conventional square house with four corners. . . . So the cost was a factor." May, *op. cit.* 204.

space at hand. However homey, no Cape Cod cottage could do that. A Cape Codder could approximate modern design, but only by becoming more unlike itself. And, in any case, the primary sign of "modern design within the Cape Cod shape" was a wall of glass at the rear of the house.[84]

At some point, the paradoxical program--visual space beyond budgetary constraints--became routine. The disjunction between means and desires was a customary client request, architect William F. Hempel explained to *Progressive Architecture*: "The owners had the usual requirements, the architect says, 'of wanting more house and finish than the pocketbook would allow.'" As a result, the architect's design featured a sensible compact plan, but an open one, with view corridors and lots of glass for "an illusion of almost endless space."[85] Practicality and hallucination had become the everyday tools of professional practice.

More than merely accepting them, such requirements were actively encouraged in arguments for modernism in design. The internal contradiction signaled an architectural opportunity. Addressing themselves directly to potential home buyers, Nelson and Wright argued that illusions of space were the architect's stock-in-trade and, what's more, justified professional fees. Like the alchemist who earns his keep by converting lead to gold, Nelson and Wright thought that spaciousness, the perceptual product created by glass walls and appropriate screening, had become crucial not only to residential design practice but to the economic rationale of the profession:

> Where space is at a premium big windows can work wonders, for these, used in conjunction with low garden walls, trellises, and other cheap exterior features, can create the impression that the space available is much larger than is actually the fact. Right here is where the topnotch architect is more than worth his fee, because he can create the illusion of additional space without making you spend the money to build it."[86]

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84. *Architectural Forum* 106, 3 (March 1949) 122-3.

85. In "The Architect and the Housing Crisis," *Progressive Architecture* 27:6 (June 1946) 54.

86. Nelson and Wright, *Tomorrow's House*, (New York: Simon & Schuster, 1945) 182.

It is important to note that the authors were not suggesting that clients actually pay their architects more, in order to match the value of the service provided. They were, rather, attempting to bolster client decisions to hire their own architects, that is, their own modern architects, in the first place. As Elizabeth Mock claimed, "only the modern architect is ... *free* to give you at least a feeling of spaciousness if the actuality is unattainable."[87] Only the modern architect recognized the necessity of spaciousness along with the limitations of finances. Only the modern architect could provide a sense of space beyond the client's financial means and design services incommensurate with their cost, making a sense of space a dividend of design. As a result, only the modern architect truly addressed the most threatening matters of the day.

This could only increase the value of a modern house, an issue modernists were particularly sore about since banks and the federal government were hesitant to provide loans or loan guarantees for modern design prior to the late 1940's. Spaciousness and views became, in effect, an architectural currency in several senses of the term. To the homeowner, visual expansion was often cast in terms of its economic value, even though its economic value was that it transcended the material basis of economics. That, many felt, was worth something. Since the home was nearly always considered at some point as a consumer good, good views, to the degree they could be valorized, that is, evaluated in terms of exchange, could add to value. If biological benefit could enter market consciousness, that was all for the good: views then could have, in Neutra's remarkable phrase, "physiological purchasing power."[88] As a financial strategy, in other words, spaciousness could outperform not only other architectural options but other investment options as well.[89] At the same time, then, that architecture was being given a new ontological imperative, it was being ushered into the consumer society's cycle of virtual values. To the residential architect, providing spaciousness had become as much of a currency as steel frame construction

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87. Mock, *op. cit.*, 17.

88. Neutra, *op. cit.* 20. Neutra appears here to have re-biologized the advertising industry's revelations regarding appeals to psychological desires rather than simply physical needs. The degree to which views actually were evaluated by market mechanisms is the subject of a subsequent chapter on visual commodification of landscape.

89. Recall, for instance, Elizabeth Mock's "abundant return" on glass wall expenses, cited above.

had become for the commercial architect. Both occupied a key position in their respective domains and served as a standard from which deviations could be measured.[90]

The teleology of modernism, as refracted for instance through the work of Giedion, accounted for the inevitability of modern architecture *to architects*. The stuff of architectural practice, that is, materials and methods, certainly had a bearing on practice. Historical changes in either meant corresponding changes in how architecture was made. Housing professionals couldn't help but have an interest in the implications of such developments. For many clients, however, this historical trajectory was secondary, at best, to the economic and urban juggernaut that pressed at the contours of their everyday life. These were obstacles an upwardly-aspiring middle class didn't need to read about; they were already bruised by them. The success of modernism in America is due, to some degree, to its appeal to such realities and to a position at the end of a more vivid teleology of economic constraint and social decay in the midst of biological stasis. Whatever the origins of modernism in American architecture, this was certainly one of the ways it flourished.

If a view could be so satisfying, perhaps it could not only compensate for inadequacies of the small house. Perhaps it might substitute for them altogether. The brilliance of the idea that a view of space might replace owning some was that, after all, the size of the viewpoint is entirely immaterial to the quality of the view, as any camera or keyhole can prove.[91] Might then the continued emphasis on views have served to keep the small house small?

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90. Colin Rowe's seminal essay, "Chicago Frame," first published in 1956, begins: "The skeleton of the steel or concrete frame is almost certainly the most recurrent motif in contemporary architecture, and is surely among the most ubiquitous of what Siegfried Giedion would have designated its *constituent elements*." In his *The Mathematics of the Ideal Villa and Other Essays*, (Cambridge, MA: MIT Press, 1976) 90. I draw also from Douglas Tallack's article "Siegfried Giedion, Modernism and American Material Culture," in *Journal of American Studies*, 28:2 (1994) 149-167.

91. Emerson's remains the most striking image of the immateriality of the viewpoint: "I become a transparent eye-ball. I am nothing. I see all." In his essay, "Nature."

It would be rare indeed to find an architect who would complete this logic.[92] But the thought did occur at least once and perhaps made some sense to the millions of readers who encountered it in Sloan Wilson's 1955 bestseller, *The Man in the Gray Flannel Suit.* In his single reference to the issue, Wilson seems to have understood that a society which had long appreciated a fine view was now ready to honor an invoice for one. Pacing the estate of Tom Rath's recently deceased grandmother in South Bay, Ct., contractor Antonio Bugala rehearsed the compensatory logic of the view at the very moment it caught up with and surpassed itself:

> You wouldn't put in straight rows of houses, you'd stagger them, about eighty houses on quarter-acre lots, each with a view of the Sound--you'd set them in just like seats in a theater, the back row the highest, and the front row the lowest, only you'd be careful to avoid straight lines. You'd put planting around each house and perhaps push up some earth between houses, so in time you couldn't see one house from another, at least in the summer--maybe it would pay to transplant some fairly big bushes. The houses would be modern, very low to preserve the view, with big windows overlooking the Sound, . . . The houses wouldn't have to be much--what you'd be selling would be the view. With just an adequate house, you might get twenty-five thousand dollars for a quarter acre of that view.[93]

Wilson never said whether or not this particular development went ahead. If it did though, the value of the bargain Bugala weighed would certainly depend, in the final analysis, on the life-cycle costs of maintaining both a modest house and a quarter acre of view, costs which, at the time, were only just becoming evident.

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92. That is, of course, until the advent of the varieties of virtual experience only just emerging at the start of the television age.

93. Sloan Wilson. *The Man in the Gray Flannel Suit.* (New York: Simon and Schuster, 1955) 161-2.

Chapter 6: A New View of Nature

> The influence of the land is sometimes looked upon as significant only in primitive conditions of life. With the coming of "civilization," that is to say, trade and manufacture and organized cities, the land is supposed to diminish in importance. As a matter of fact, the importance of the land increases with civilization: 'Nature' as a system of interests and activities is one of the chief creations of the civilized man.
>
> -Lewis Mumford, 1931[1]

By the middle of the twentieth century, modern architects in the United States were working with a new nature. The old nature had been changed forever by the impact of rapidly growing cities, burgeoning industries, new forms of transportation, instantaneous global communications and the growing sense of a shrinking planet. Even though they brought great material progress, such changes gave rise to a host of concerns. The deepest secrets of nature seemed to be nothing so much as inventory for the nuclear industry and the nation's defense economy. Despite confidence in continued invention and innovation, a pall of technological anxiety stretched across America in the fifties. The nation had grown not only more chilling under the shadow of the atomic bomb and Cold War tensions. It had also physically diminished somehow: urban sprawl, along with the extension of communication systems, were obliterating any lingering distinctions between city and country. At a more personal level, the mechanization of so many familiar activities had blurred the very distinctions between one's body and the day-to-day technology that was to serve it.

In design circles though, the theme for the fifties was landscape. Across dozens of professional and popular periodicals, the new nature looked remarkably like the old nature, or nature as it seemed most richly remembered: a palette of earth-tones, a sense of open space, and a view from within the private home over a broad, untroubled, and unpopulated landscape. It was not mere serendipity that Americans could turn to a peaceful landscape to escape the anxieties of contemporary life. It was a factor in contemporary political struggles. *House Beautiful*, for instance, argued to millions of readers that private contemplation of nature differentiated

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1. *The Brown Decades* [1931] (New York: Dover, 1971) 26.

democracy from totalitarianism and might forestall the decline of humanity.[2] If the sense of urgency reads now like an unwitting parody of Cold War paranoia, at the time it couldn't have been more serious, pervading nearly all critical discussions of what the French critic Jacques Ellul called "the technological society," most notably perhaps those of the "Frankfurt School." While "nature" is perhaps the oldest trope in American history, apostrophized since the nation's inception, "natural scenery" was often promoted as a kind of antidote to life in the twentieth century, which had become too civilized and too urbanized, in a word, too unnatural. Visits to national parks, for instance, were encouraged by government agencies precisely to recover "inspirational values" in nature for those "trying to escape the 'abominations of mechanized life.'"[3]

Despite the seeming paradox, finding tensions between nature and technology is a hallmark of American imaginative and, thus, historical experience. The terms have proven over time to be more symbiotic than exclusive. Over thirty years ago, Leo Marx described the mutual contribution of both nature and technology to the longstanding literary trope he named "complex pastoralism." Getting "closer to nature," at any stage of society, Marx observed, is "the psychic root of all pastoralism--genuine and spurious."[4] The "machine in the garden" remains a vivid and enduring image of these competing impulses. Besides describing them, resolving tensions between nature and technology also is a hallmark of American thinking. Howard Segal argues that in some utopian thinking these allegedly opposing forces may find a common meeting ground, a place where both are compatible but neither is compromised: "The envisioned domestication of both technology and nature will resolve the tension that Leo Marx, among others, has deemed irresolvable: the tension between the industrial and agrarian orders, between the machine and the garden that Marx believes lies at the heart of the American experience."[5]

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2. *House Beautiful* (November 1951) 192 ff.

3. "A National Plan for American Forestry," 1933, quoted in Hans Huth, *Nature and the American. Three Centuries of Changing Attitudes* (Berkeley, University of California Press, 1957) 200-1.

4. See *The Machine in the Garden* (Oxford: Oxford University Press, 1964) 6.

5. Howard Segal. *Technological Utopianism in American Culture* (Chicago: University of Chicago Press, 1985) 24.

The private single-family house was at the center of such tensions. Since the nineteenth century it had been increasingly affected by techniques of mass production and it proliferated with the growth of urban transportation systems, not to mention the industrial organization of building supply manufacturers. At the same time though, it was usually idealized in a natural setting. Especially for the urban gentry, a country house filled with the gamut of modern conveniences was a sure sign of the range of wholesome family values associated with a life in the rural countryside. Citizens civilized the countryside while a life in nature subdued the worst urban impulses and undid the cumulative effects of life in the city. With domestic goals drawn from two distinct realms opposed by definition, opportunities for conflict were rife. When the inevitable contest did emerge, it was certain which was to prevail. The noted architectural critic Montgomery Schuyler, for one, advised architects to "subordinate technical means to the achievement of a more harmonious relation with nature."[6] To this end, increasingly industrialized, Victorian-era homes stressed a set of visual characteristics that could relate the house and its natural setting to one another so that the two might be considered cast of the same material.

The self-consciously modern house in the twentieth century was similarly associated with values conferred on it by being outside the reaches of the city: "No longer located next to the place of work, its picture window and its garden-playground seek to face nature as the source of physical and spiritual health. Ours is a NATURAL orientation."[7] Like the nineteenth-century house, the modern house was a bid to reorient the dwelling to nature. Unlike the prior century though, a modern house had to make the industrial origins of its construction visible in order to be consistent with prevailing design principles. It wasn't enough any more for a house to be threaded with mechanical systems and stuffed full of the latest in equipment and appliances. In the age of mass society and ever-increasing mechanization in all types and styles of building, a home had to look "modern" to be called modern. It could no longer afford to represent nature over its own technological sources.

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6. Cited in Leo Marx, "The American Ideology of Space," in *Denatured Visions. Landscape and Culture in the Twentieth Century* (New York, 1991) 71-72.

7. H. G. West, "The House is a Compass," *Landscape* 1, 2 (Autumn 1951) 27.

A modern house might nevertheless foster relations with nature. By virtue of technological advances, it might in fact improve relations with nature. To do this, new strategies were required of the new architecture not only to conform to the reigning philosophy of modernism but also because "nature," that is, humankind's relation with nature, had also changed. Skimming the professional journals of the middle decades of this century, it quickly becomes apparent that modern houses were nearly always pictured in a natural setting, which only reinforced the value of transparent exterior walls. It would not be hard to come away from this material with the impression that an essential function of the modern home was to frame a view. An entire philosophy of nature and man's relation to it begins to emerge from countless images of sylvan scenes seen from one's sill.

Given the long history in America of constructing, distinguishing, and reconciling nature with civilization, it is surprising how little investigated the subject is in architectural history. Architecture, though defined in part by its focus on the very paradigm of artifice, that is, construction, is no less concerned with this historical legacy. The primary literature reviewed in the following pages is positively saturated with changing, overlapping and conflicting definitions of these mutually defining ideas. This is only partly explained by architects' use of pre-existing social values in their efforts to popularize modern architecture. It is also due to what is essentially a philosophical distinction between means and ends. At its broadest, technology itself is a means to an end. As such, it is inseparable from those ends, which, nevertheless, may be defined independent of available means. Just as often though, the means available help to determine one's ends or at least limit the range of imagined, if not desired ends. Since architecture is for almost any society a prominent intersection of human ends and material means, an architectural history, it seems to me, must consider the purposes to which building is put. Few architects practicing around 1950 would have disagreed with the dictum expressed by *Architectural Forum* that "the aim of building today, except in specialized industry, is to maintain as intimate a contact with nature as possible, excluding only undesirable phases while exploiting positive advantages to the full."[8] Technical innovation was often taken as the most promising means to such an aim.

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8. *Architectural Forum* (November 1948).

More than any other single architectural element, the glass wall enhanced relations with nature in the modern house. The glass wall gave on to a view, which was the only way a house could be said to "face nature"--you had to be able to see it. "Bringing the outdoors indoors," a phrase that echoed across the country for two decades, was invoked almost exclusively in reference to a glass wall. It made of nature a house guest at the same time it made the modern interior host to all of creation. Yet the glass wall was one of the technological triumphs of architectural modernism. It was a product of long span techniques made routine enough for residential use, the everyday use of a material valued throughout history, and with a sparkle and finish that would have made kings jealous, not to mention the construction dexterity necessary to transport, handle, and install large sheets of it in sometimes remote settings. Though the glass wall stood out as a technological feature, it seemed to "disappear" visually. In this way it seemed almost to step aside of its own accord in order to fulfil its primary purpose, intimate contact with nature. Its transparent quality had made it central to the modernist tenet of dematerialization, which was in the 1920's more a technological proposition than the spiritual imperative it later became. While decades of suburban ideology had placed the single-family house on its own blanket of greenery, the dissolving enclosure increasingly exposed those surroundings to view. More than just marking the approach to a home, the surroundings became a conspicuous part of the interior. The view from one's house became the private version of escape to nature, trading the "abominations of mechanized life" for the marvels of mechanized life. Housework, for example, became easier with an "expansive view" because with one, "scenery is in the kitchen."[9] Visual pleasure apparently trumped manual labor.

The symbolic power of the glass wall and its view lay precisely in the fact that it drew meaning from both realms. With the glass wall, intimacy with nature could be understood as being as characteristic of modern life as technological anxiety. Both were artifacts of a materially advanced civilization that minted along with its neuroses the means to heal them. The task was simply to maintain a proper balance between nature and technology or, for architects, to design for each its proper place. So pervasive was this understanding that even manufacturers of

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9. *Better Homes and Gardens*, 31:1 (January 1953) 20.

mechanical equipment from furnaces to refrigerators routinely pitched their merchandise with pictures of the outdoors and promises of time freed up for outdoor living. If views of nature in particular became so prominent an architectural feature of the fifties, it may well be because they were able to resolve, momentarily, the conflict, so resonant in popular American imagination, between pastoral ideals and progressive ambitions.

A note of caution is warranted here due to the very complexity and ambiguity of my central terms: nature and technology. The word "nature" is "perhaps the most complex word in the language." It has many denotations, which represent "many of the major variations of human thought" and has been called on to legitimate often contradictory ends.[10] While it may refer to natural law or human reason, measurable material properties or the unknowable order of the cosmos, the willing object of empiricism or the spark of creation, a foundational geometry or the infinite diversity of form, it is just as often invoked as a criticism of the values and behavior of others. As Geoffrey Scott caustically remarked in 1914: "Nature becomes the majestic reminder of human littleness and the insignificance of other people's thought."[11] In many ways, this chapter is an attempt to understand one sense of the term as it sprawled across architectural discourse, and the national landscape in the mid-twentieth century.

"Technology" is only slightly less unwieldy a term. Defined at its broadest as the means to an end, it involves practically all human making and touches upon any satisfiable human purpose. I make no attempt in this dissertation to define these terms more sharply for two reasons. First, the terms were as flexible and polyvalent in 1950 as they are today. Though capable of sustaining significantly distinct ideas, words like "nature," "landscape," or even "scenery," on the one hand,

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10. "Nature" in Raymond Williams, *Keywords* (1976) 184-9 and "Ideas of Nature" in *Problems in Materialism and Culture* (London: Verso, 1980) 67-85. See also C. S. Lewis, "Nature" in *Studies in Words*, (Cambridge: Cambridge University Press, 1961) 24-74.

11. Scott was emphatic on this: "Nature, for a living art, is full of suggestion; but it is none the less a resisting force-something to be conquered, modified, adorned"; The "cult of nature" is a sign of decline; "Nature led, and can only lead, to chaos." Geoffrey Scott, *The Architecture of Humanism* [1914] (Garden City, NY: Doubleday, 1954) 69-78.

and "technological," "industrial," or even "urban," on the other hand, share a "semantic domain" that is no less effective for being ill-defined.[12] Writers in the 1950's often intended to invoke broad and resonant notions when they used such terms. Second, using such broad categories myself allows me to explore the extent to which other terms, which at first may appear unrelated, are part of the same system of architectural values. A term like "spaciousness," to take only one example, was usually understood, at least in America, as an otherwise natural or original condition that was quickly becoming compromised by advancing civilization. Describing the way such terms fit together in the architectural imagination is a central goal of this chapter.

Nature Imitated

> It could be said that, in modern design, nature was first imitated (1850s) then symbolized (1890s) and finally assimilated (1940s).
>
> Edgar Kaufmann, Jr.[13]

Although Edgar Kaufmann, Jr.'s condensation of the developmental stages in relations between design and nature was perhaps a little too neat it is not hard to agree with him. Imitation of nature was not always necessary but it was always a possibility in the nineteenth-century house. While functional principles of organization might be advocated for the private home, most notably in the work of Catherine Beecher, a mimetic impulse was never far away. John Ruskin was only the most well-known writer who labored to determine not whether architecture should imitate nature, but the manner and degree to which architecture must imitate nature. As one historian has noted, this tenet put Ruskin "in the unfortunate position of defending not only naturalism but also the sentimental excesses of popular taste."[14] While Ruskin was fashionable in the United States later in the century, picturesque sensibilities had become commonplace much earlier precisely through a range of periodicals that enjoyed a wide circulation among a growing middle-class audience. Such periodicals regularly featured the "conventionalized sentiments" of "alamode

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12. Yi-Fu Tuan, *Topophilia* (Englewood Cliffs, New Jersey: Prentice-Hall, 1974) 132.

13. In *What is Modern Interior Design?* (New York: Museum of Modern Art, 1953) 20.

14. Michael Brooks, *John Ruskin and Victorian Architecture* (New Brunswick, NJ: Rutgers University Press, 1987) 93. See also, Roger B. Stein, *John Ruskin and Aesthetic Thought in America, 1840-1900* (Cambridge, MA: Harvard University Press, 1967) 48, 194.

stylists".[15] Perhaps this is what led historian David Handlin in his study of the nineteenth-century American home to claim, also perhaps a little too concisely: "The central problem of architectural theory has always been whether and how architecture imitates nature."[16]

Associations with the natural world could reliably be evoked with a loosely defined set of visual characteristics that became conventional toward the end of the nineteenth century. A relatively stable aesthetic consensus took formal qualities such as roughness, asymmetry, complex massing, earth-toned or weathered-looking colors to be essentially mimetic of natural forms and colors. As Mumford put it, "new houses looked more shaggy and earthbound," and revealed "a love for the rough, the primitive, the elemental."[17] [Fig. 6.1] In the model offered by late eighteenth-century associational psychology, a quality such as asymmetry could be "read" as an indication of a functional plan based on attention to the fundamental needs of family life and, as a result, stimulate, according to the precepts of "unconscious influence," ideas of natural order. Inside the home, natural evocations could become quite literal. Later in the century, interiors would be decorated with pine-cones or leaves pinned on the wall or hung from the ceiling by threads, southern moss draped over mouldings, a range of potted plants, in addition to the prominent use of textured natural materials and a variety and richness of form and color. Interiors were filled, in short, with anything which might relate them to a larger natural system.

The value of association with nature on the interior of the home was taken to be thoroughly consonant with the major premise of the country house. The country house, and the suburban movement associated with it, was first and foremost a house in nature and a house which benefitted from the beauty of its setting in nature. As Handlin notes, ideas of beauty were frequently connected with images of nature and, since God created nature, morality. The house's

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15. Hans Huth, *Nature and the American. Three Centuries of Changing Attitudes* (Berkeley: University of California Press, 1957) 12.

16. David Handlin, *The American Home: Architecture and Society, 1815-1915* (Boston: Little Brown, 1979) 26.

17. Regarding the architectural influence of the well-known naturalist John Burroughs, in *Roots of Contemporary American Architecture* (New York: Dover, 1952) 423.

setting would, many argued, come to affect the quality and character of the house's occupants. Alexander Jackson Downing thought that "the happiest social and moral development of our people" would be found within "the serenity and peace of sylvan scenes, surrounded by the perennial freshness of nature, enriched without and within by objects of universal beauty and interest".[18] Good citizens, the theory went, were made in nature.

A rustic influence had been pervasive in architecture both in England and the United States, eventually coming in the eyes of some critics to eclipse others dimensions of architecture. Geoffrey Scott labeled the more imitative appeals to nature a "Romantic Fallacy." He allowed that certain kinds of romanticism might be architecturally productive: "fitting the house to unselfconscious nature" was essentially a romantic, or more precisely, a picturesque motive. But it was "picturesque without affectation". It was romantic but not necessarily false. In general though, the picturesque had a corrupting power. The "rustic influence in taste" had tempted architects to attempt "to take the colour of the countryside" and virtually imitate forms of nature. The deceit lay in the picturesque house's subordination of structure to an evocation of nature, thus seeking to hide "the original sin of its existence: the fact that it was an artificial thing." Though Scott's text, *The Architecture of Humanism*, was to modernists a retrograde defense of classicism, its castigation of imitation was respected.[19]

Middle-class homes in the countryside were increasingly the product of changes in technology and many artificial things. Nearly any history of suburban growth describes the many ways in which urban development, advances in transportation and communications, as well as progress in building specialties fostered the nineteenth-century domestic cult of nature.[20] Despite its physical

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18. A. J. Downing, *The Architecture of Country Houses* [1850] (New York: Dover, 1969) 257-8.

19. In *The Architecture of Humanism* [1914] (New York: Doubleday, 1954) 62, 76-77.

20. A degree of urban influence on the countryside was similarly taken as beneficial to the countryside. In his 1878 book *Modern Dwellings in Town and Country*, Henry Hudson Holly argued that, "The natural overflow from the city into the country necessarily carries with it an element of refinement and culture." Railroads, in particular, he referred to as "the great civilizing agencies" of the countryside. (New York: Harper & Bros., 1878) 131-32.

distance from the city, the country house suffered no shortage of the devices essential to both modern work and leisure. Even its location in nature, that is, its relative distance from the city was predicated on the new railroads and their adoption of regular commuter schedules. Urban levels of comfort were essential to the growing appeal of suburban houses, however much they foregrounded their intimacy with the landscape. Considering the biography of John Burroughs, the well-known writer on both nature and architecture, Lewis Mumford wondered,

> Was there perhaps some relation between the increasing love of nature, in its wilder moods, and the growing possibility of comfort in the midst of nature, in houses whose central heating apparatus kept water from freezing in the pitcher overnight, and whose indoor toilets eased some of the strain of outdoor living, when the day was over?[21]

As many have observed, the suburban single-family house is essentially an urban type that drew its power from the reconciliation of an urban and a rural environment, that is, from specific conceptions of the city and the country. Often, the country was idealized while the city was demonized.[22] Newly available to the middle classes, the suburban country house gave citizens an opportunity to select those aspects of either city or country worthy of incorporation in what was certainly the most romanticized building type of its time. The suburb of single-family houses could be looked upon as a rural utopia divorced from urban problems but benefitting from urban pleasures precisely because it proposed "the golden means between the two kinds of life."[23]

But, the country house in nineteenth century America wasn't supposed to look like the machines that put it in nature or that made loving nature less tiresome. The extravagant display of a variety of shingles on a Queen Anne Revival country house, for example, was not intended as a reference to the building supply catalogs from which those shingles were selected. Nor were rich and varied

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21. Mumford, *op cit.* 423.

22. This did not however entail a wholesale rejection of the city. Historian Warren Susman has demonstrated that the anti-urban strain in American history is matched if not surpassed by admiration for the city. "The City in American Culture," in *Culture as History. The Transformation of American Society in the Twentieth Century* (New York: Pantheon, 1984).

23. *Riverside in 1871, with a Description of its Improvements* (1871) 21. Cited in William Cronon, *Nature's Metropolis. Chicago and the Great West* (New York: Norton, 1991) 348-9.

paint colors meant to represent, directly at least, the expanded color selection of an industrializing paint industry. Gervase Wheeler was explicit on this point regarding a rustic villa: "Its rusticity is obtained by the avoidance of all those minutiæ of finish which propinquity to the city places conveniently at hand" and also "by the perfectly simple and unconcealed character of its construction."[24] The country house was predicated on being in the country, which meant being away from the city and the processes of industrialization and capital concentration that the city so often stood for. The country house developed a formal program to display its physical and ideological distance from the city; it was apparent in a visual congruity between nature and architecture.

In this way, the setting affected the architecture in a symmetry that appeared obvious, almost spontaneous, after Downing described it: "The scenery, amid which it is to stand, if it is of a strongly marked character, will often help to suggest or modify the character of the architecture."[25] Downing observed a certain appropriateness of specific architectural features that enhanced the relation of occupant to setting. As a result, he took such features to be the chief indication of the very act of dwelling: "Verandas, piazzas, bay-windows, balconies, etc., are the most valuable general truths in Domestic Architecture; they express domestic inhabitation more strongly because they are chiefly confined to our own dwellings."[26] Located always at the periphery of the house, such elements both facilitated the occupants' relations with the natural setting and transformed the formal character of the house. For Wheeler, "a style fully adapted to the scenery" was definitive of the house in the country.[27] Not long after Downing and Wheeler wrote, the Shingle Style, an architecture unique to the suburbs, offered visual proof of distance from the city.

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24. Gervase Wheeler, *Homes for the People in Suburb and Country*, (New York: Scribner, 1855) 99.

25. Downing, *op.cit.*, 271.

26. *Ibid.* 32.

27. Wheeler, *op cit.*, 65.

Although *art nouveau* designers incorporated materials like iron and glass more directly, they were still unable according to Kaufmann's timeline to face them directly. In his discussion of the same topic, Walter Benjamin also noticed the pressure brought to bear by technological change on the functions of the private home. As a compensating space for the degradations of the workplace, the home needed to appear as a realm of autonomy: "The private person who squares his accounts with reality in his office demands that the interior be maintained in his illusions." While the *art nouveau* interior in particular was directed, by most accounts, toward the individual's aggrandizement, Benjamin thought it was instead an attempt to resist technology's continuing invasion of the home. It did this, he thought, by using technology to symbolize nature. *Art nouveau* drew on the accumulated iconography of the interior and found naturalistic imagery an appropriate way to subordinate direct technical expression:

> *Art nouveau* mobilizes all the reserves of inwardness. They find their expression in mediumistic line-language, in the flower as the symbol of naked, vegetal nature confronting a technically armed environment. The new elements of iron building, girder forms, preoccupy *art nouveau.* In ornamentation it strives to win back these forms for art.

Because they could not face technology directly, *art nouveau* designers aestheticized it in terms drawn from an earlier understanding of the home, making a symbol of nature a mask for technology.[28] [Fig. 6.2] Whether imitated or symbolized, successfully or otherwise, nature and technology were according to the mainstream architectural thought of the nineteenth century compatible in formal terms.

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28. "Louis-Philippe, or the Interior," [1955] in *Reflections* (New York: Schocken, 1978) 154-5.

The Twentieth-Century Inheritance

> **A new view of nature** was visible with the huge sheets of polished plate glass which the Twentieth Century made relatively cheap and plentiful.
>
> -James Marston Fitch, 1950[29]

> "We love nature, plants, views, light, and air, differently from, and more than, previous generations. Today's technique has endowed us with the structural means of opening our dwelling places up to embrace nature"
>
> -Richard Neutra, 1938[30]

Writing almost a century after Downing, Lewis Mumford thought the desire for a country house was an outdated and unrealistic artifact of the urban gentry. Nevertheless, he admitted that it remained the centerpiece of a powerful value system that did in fact cut across class boundaries: "The isolated country house, designed to meet the tastes and interests of a small class of people, and set in the midst of a large tract of land, insulated from its neighbours, perhaps remained the ideal of house-design, even among the classes that were forced to accept mean bungalows or shanties five feet from their neighbours as equivalent"[31] To some extent certainly, the villa-envy Mumford lamented was itself a product of decades of presenting life in nature as the answer to mean urban conditions. Certainly the talents of someone like Frederic Law Olmsted, who designed picturesque urban parks from the inspiring station of his suburban home, contributed to the ease with which Americans could imagine themselves going "back to nature."[32]

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29. James Marston Fitch, "The New Architecture Started 70 Years Ago," *House Beautiful* (May 1950) 136. Emphasis in original.

30. Richard Neutra, "Modern Design Matures," *California Arts & Architecture* (July 1938) 19.

31. Mumford *op. cit.*, 79. Catherine Bauer made a similar point, arguing that "the new feeling for romantic Nature" and "the self-sufficiency of the pioneer adventurer" had combined with economic doctrines and "produced that exceedly powerful modern idolum, the Country House. . . . In spite of many recent modifications, this idolum is still so strong and so much taken for granted that it is difficult to remember that it is quite a new thing." In *Modern Housing* (Boston: Houghton Mifflin, 1934) pp. 50-51.

32. A movement described in detail in Peter J. Schmitt, *Back to Nature. The Arcadian Myth in Urban America* (Baltimore: Johns Hopkins University Press, 1969).

For their part though, polemicists for modernism railed against picturesque conventions. Modernist concerns regarding functional planning and recognition of the machine age invalidated past architectures and underpinned a general critique of traditional sentiment. The core argument of Henry-Russell Hitchcock's seminal *Romanticism and Reintegration*, for instance, began with the "disintegration" of architecture as a result of eighteenth-century subjective aesthetics, which had located aesthetic comprehension within the observer and, as a result, precipitated the separation of architectural design from engineering. At that moment, architecture was made subsidiary to landscape gardening, which then "became as a result of new aesthetic theories the most adequate plastic art for the expression of the essential ideas of the period." The effect on architecture was corrosive as buildings were considered merely an "accent" to a larger landscape.[33] Hitchcock saw a "New Tradition" in architecture that strove to rationalize its romanticism and eclecticism but ultimately came up short. Though Hitchcock thought that Wright, a New Traditionalist, was "the greatest American architect of the first quarter of the twentieth century," he castigated an enduring "Nature worship" which prevented Wright from learning well "the lesson of Ford." Second-quarter twentieth-century modernists, those Hitchcock called "The New Pioneers," were, even as he wrote, finally reintegrating these long-separated modes.[34]

Though he wrote that "the more extreme technical point of view often professed by the New Pioneers is primarily a battle cry and a subject for manifestoes," the continuing concern for modern architecture would be "the aesthetic expression of structure."[35] There is no hint of this attitude anywhere among the Romanticists of the late-eighteenth century, Hitchcock observed. With a very pregnant "Yet" that begins the book's final statement, Hitchcock posed the surprising thought that there is something among the splendidly rational New Pioneers which recalled the peak of Romanticism: "cutting the cards another way," he mused, the Romantic disintegration and the modernist reintegration of architecture may be "closer perhaps in many ways than they have

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33. Hitchcock, [1929] (New York: Da Capo, 1993) 8.

34. *Ibid.* 116-118.

35. *Ibid.*, 209-212

always here been made to appear." Specifically, "All the New Pioneers ... are very careful to relate their architecture as fully as possible to the natural surroundings, although without in any sense merging it therewith." Architecture was next but not cast of the same material as nature. [Fig. 6.3] Despite an insistence on technologically inspired form, modern architecture might nonetheless have a soul that a citizen of the eighteenth century would have appreciated. Hitchcock continued: "Uvedale Price, the great authority on the picturesque, would have approved both terraces and ribbon windows. In a sense indeed he recommended them more than a century ago when he suggested that houses might be 'picturesquely' designed solely with the idea of making the most of the circumambient view." If Romanticism in general had undermined architectural integrity at the start of the nineteenth century, the picturesque impulse toward the panorama in particular, Hitchcock allowed, may be the precursor to definitive traits of architectural integrity in the twentieth century.[36] Modernism might just be able to synthesize machine-age rationality with a wild romanticism.

When Giedion took up the issue of architecture's relation to landscape some ten years later in his Norton lectures at Harvard he also argued that architectural integrity would be maintained by remaining adjacent to but formally distinct from the surrounding landscape. There were, he wrote, "two eternally opposed responses to nature." One was embodied by the medieval townscape or more recently in the work of Frank Lloyd Wright, in a word, "organic." The other response was that of the Greek temple and Le Corbusier's Villa Savoye: a resplendent contrast between the resolutely man-made object and the unredeemably natural landscape. While Giedion insisted that "one cannot be considered superior to the other," the two responses moved in different orbits. The latter represented a trend "toward the rational and the geometrical, the other toward the irrational and the organic: two different ways of dealing with or of mastering the environment."[37] As eternally recurring responses neither approach could be faulted. Yet the rapid industrialization of the nineteenth century gave the rational approach a more progressive

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36. *Ibid.*, 220.

37. Siegfried Giedion, *Space Time Architecture* [1941] (Cambridge, MA: Harvard University Press, 1967) 414, 528.

complexion. Indeed, many had sought in the organic response a refuge from industrialization. Giedion singled out Ruskin as one of those unable to face the realities of the nineteenth century: "Ships, bridges, iron constructions--the new artistic potentialities of his period, in short--these were the things Ruskin pulled down the blinds on." A truly creative artist, Giedion continued, "does not want to copy his surroundings."[38] For both Hitchcock and Giedion architecture had only suffered during its long refusal to acknowledge new industrial developments and their implications for design. Eternal or not, mimetic impulses in Giedion's critique were out of step with the changing times.

Architects in the United States for the most part accepted their nineteenth-century inheritance, the single-family house in a natural setting. To be consistent with modernist principles, however, architects would have to maintain a formal distinction between the increasingly mechanized house and the more or less natural setting. The challenge then was precisely how to reconcile what seemed to be two contradictory domains. Reconciling advanced technological civilization with what appeared to be an originary state of nature is a task common to the making of what Leo Marx has called in literature a "middle landscape." The term has been applied to suburban development in general, due less to any pastoral scenery than to the selection and blending of certain attributes of city and countryside. As Peter Rowe concludes in *Making a Middle Landscape*, suburbs "incorporated the functional specialization, diversity, and social heterogeneity of the traditional city with dispersed, disurban, and almost rural patterns of small-town, country life."[39]

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38. Moreover, modern conditions made "the juxtaposition of nature and the human dwelling," one of architecture's enduring truths, imperative: "The baroque desire to surround the human dwelling with greenery is urgently desirable in our period." Giedion's reference to baroque desires was not a casual one. He thought that the constituent fact of Versailles was its "close contact with nature," which could be no better represented than with the view from Louis XIV's bedroom. The dwelling and nature were next to but unlike one another. Artifact and nature were juxtaposed, or in the case of Versailles, buildings were "directly confronted with nature." *Ibid.*, 432.

39. Peter Rowe, (Cambridge, MA: MIT Press, 1991) 289.

To be an effective instrument of the middle landscape then, a suburban house had to incorporate both city and country. In the nineteenth century, as noted above, a house might take on the "color of the countryside," as Scott put it. To be sure, picturesque architecture that would have been at home in the nineteenth century continued to be built throughout the twentieth century in America. Early twentieth-century work by prolific firms like Peabody & Stearns in Boston or Mellor, Meigs & Howe of Philadelphia drew explicitly on picturesque styles. [Fig. 6.4] Even sober and symmetrical colonial revival homes would regularly appear in the typically picturesque settings of the ever-growing suburbs at the turn of the century. Picturesque conceptions of nature continued to inspire the sensibilities of architects and clients and the planning of residential communities.[40] In this sense, traditional architecture could be restated not only in terms of historical reference but in its willingness to share formal atttributes with landscape.

Alternatively, a popular twentieth-century style such as the Cape Cod house, could be seen as reproducing on the exterior an architectural vocabulary reminiscent of a less industrialized and less urbanized time in American history while the inside was stuffed full of the latest electric appliances. Active in the 1940's in New England, Royal Barry Wills, for instance, exaggerated the chimney to suggest the traditional role of the hearth and a pre-industrial response in terms of materials to the presence of fire. To Wills, this strategy honored the fundamentally conservative functions of home. At the same time Wills himself noted: "One great exception to the restrained acceptance of change has been in the mechanical division, and even the simplest Cape Codder will enshrine every last piece of labor-saving machinery that its owner can afford."[41] Many modernists read this dichotomy in more traditional styles as a fundamentally schizophrenic approach to architecture.[42]

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40. See "Dichotomy: Tradition and Avant Garde: 1915-1940"in Leland Roth's *A Concise History of American Architecture* (New York: Harper & Row, 1980).

41. *Architectural Record* (April 1949) 133.

42. Schizophrenia was sometimes posited as the solution to competing demands on the modern house. *Architectural Forum*'s review of "A House Divided" described a design that was traditional looking from the street, indicated mostly by small windows, but was modern on the inside, largely by virtue of its glass walls overlooking the rear yard. The design said to the editors that modern architecture was a good place to

Modern house designs did not forego this dichotomy so much as redraw it in terms of machine and garden. Hitchcock had already ridiculed the "mysterious Anglo-Saxon prescription that [houses] must look like 'homes'" as a "stupid prejudice." He proposed that modern architects could offer a homelike environment not in the literal but "in the spiritual sense."[43] To make whole the architectural expression of the house, that is, to make it manifestly a product of its time, the house had unequivocally to bear the formal indications of machine production and serve the modern lives of the its occupants. "Rural patterns" were stripped from the facade and projected in far more literal terms on the surrounding landscape. Modern domestic architecture in America made the dichotomy between nature and technology more visible and more schematic, casting one as the means and the other the goal. The machine, in short, was the way to the garden. No one stated the contemporary structure of means and ends more succinctly, or to a larger audience, than Richard Neutra when he was quoted in 1951 in *Newsweek*: "Nature is my goal. I may have to use complicated, unnatural means, but the natural setting finally emerges."[44] Advanced techniques allowed the architect to open up the house to nature, the original backdrop for dwelling.

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look out from but not to look at. The link between a schizophrenic house and the psychic state of its occupants was made readily apparent to readers. The architect, Rene Travelletti, was given the opportunity for rebuttal and argued that any schizophrenia would likely be the result of public, and involuntary, "nudism," that is, revealing through glass walls to all the street the daily life of the family. Exposing one's home life to nature, on the other hand, was entirely healthy. The question for Travelletti was not whether there would be a glass wall in his forthrightly conservative design but whether there would be two: one to live a modern life intimate with nature and the other to exhibit one's modernity. *Architectural Forum* (June 1948) 110-13.

43. Hitchcock, *op. cit.*, 217.

44. Neutra, *Newsweek* (28 May 1951) 54. Neutra seems to restate in personal terms an historical development described by Le Corbusier. In "The Hour of Architecture," Le Corbusier argued that around 1910, once "the technology of building was purified," "our vivid awareness of the beauties and power of nature ... found their place within the framework of architecture." In *The Decorative Art of Today* [Paris: 1925] Trans. James Dunnett (Cambridge, MA: MIT Press, 1987) 137.

A Clean Reticent Frame. A Changing Landscape Drama

It is by the resolution of strong opposites that this house gains its character.
-Marcel Breuer, 1949[45]

The "resolution of strong opposites" became the most common aesthetic trope of modern American residential design at this time.[46] Binary pairs such as machine and nature or geometric and organic were routinely seen underlying the organization of house designs. A good design brought opposite poles together yet allowed each to remain true to its own essence. They reinforced one another by contrast. Numerous architects at the time praised this conceptual pairing: "The sensation of man-made space, geometry and architecture ... together with and in contrast to organic forms of nature and man"; the quiet intimacy of the hearth in contrast to the thrill of the panorama, which was often visible from the fireside.[47] Eero Saarinen thought this formal opposition descended from binary states of mind. Literally equating a sense of openness with consciousness, or at least wakefulness, Saarinen described the house he hoped one day to build for himself: "The only logical kind would have two floors, a glass box above ground and a windowless box below ground. For a bedroom you need only a dark cave."[48] In many ways, the "bi-nuclear" plan associated with Breuer, with its schematic distinction between an open public realm and a more closed private realm, represents a crystallization of this sort of thinking which has become conventionalized. [Figs. 6.5-6.7]

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45. Marcel Breuer, in *Architectural Record* (February 1949) 85.

46. Joseph Mason also makes this characterization as well in his *History of Housing in the U.S., 1930-1980* (Houston: Gulf Publishing, 1982) 70.

47. Marcel Breuer cited in *Architectural Forum* (November 1948) 147. Of course binary thinking is not unique to this discourse or period. Calvert Vaux, to take only one example, found that: Almost every American has an equally unaffected, though not, of course, an equally appreciative, love for'the country.' This love appears intuitive...there is an innate homage to the natural in contradistinction to the artificial--a preference for the works of God to the works of man." The question is precisely what were the terms and significance of the pairing. Vaux's comment from Calvert Vaux. *Villas and Cottages* [1857] (New York: Da Capo, 1968) 15.

48. In "Houses Architects Live In," *Life* 46, 3 (19 January 1959) 55.

Progressive Architecture found this opposition characteristic of the entire profession. To conclude their review of the past fifty years of architecture, the editors assessed the current architectural scene and found three clear trends. [Figs. 6.8-6.10] The first they described as "a highly rationalized and ultra-refined direct statement of technic and purpose." The best exemplar of this mode was Mies van der Rohe and his plans for the campus of the Illinois Institute of Technology. At "the opposite end of the scale" was Frank Lloyd Wright's V.C. Morris Shop in San Francisco. This building was characterized as "a highly personal romantic approach to organic architecture." Admirable as either of these projects may have been, they represented the extreme positions of romantic and technician. Standing between these two peaks of architectural achievement and representing a more attainable path was San Francisco-based architect Albert Henry Hill's design for a private home in Ross, California. Hill's project was a "happy fusing" of the two extremes, neither anonymous nor too personal. The accompanying image of Hill's Dettner House is telling: wedged between a swath of sky and a wide terrace, which together take up most of the image, is a house composed of only a broad flat roof echoing the terrace, a stone chimney, and a wall of glass.[49]

Hill's design could illustrate a middle ground because it relied for visual effect on the contrast between, on the one hand, a set of forms that had come to signify modern methods of construction and functionalist planning--that is, "technic and purpose"--and, on the other hand, a natural setting. It was a machine-for-living in the garden. Functional planning so facilitated the owners' lives that they found themselves free to lounge in the splendid setting. Advanced technology, such as interior climate controls as well as walls of glass, had tamed nature enough that it might enter the home when the owners couldn't be outside. For its part, nature provided a stage on which technological forms might appear to heightened effect as well as a stunning backdrop for the occupants' daily life.

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49. "American Architecture, 1900-1950," *Progressive Architecture* (January 1950) 103. After a "grand detour" through neoclassicism in the first decades of the century, new building types appeared during the prosperity of the 1920's. A depression-driven practicality and focus on technological solutions to social despair characterized the 1930s while the 1940s saw a wartime explosion of research in fields related to architecture, which helps explain the editors' tremendous optimism that January.

Somewhat later but along the same theoretical lines, Karl Selg, in his 1957 essay on "Single Family Houses," thought the contrast was the culmination of one of the three distinct developmental paths taken by modern architecture. Illustrated by the work of Mies, Gropius and Neutra, all three branches exhibited clear geometries and provided some sense of a larger landscape. In Mies's work, though, the right angle was the basis of a tectonic, more experimental, and perhaps more inward-looking architecture. For Gropius, clear geometry was an expedient, a convention of construction that facilitated the building task at hand. For Neutra, though, Selg thought the right angle was a metaphor. Rather than being an urban coordinate or having intrinsic interest, Neutra's use of strong geometry, according to Selg, heightened the experience of nature.[50] *Interiors* magazine, to take only one more example, in its review of "modern rooms of the last fifty years," thought the contrast of geometric form with natural form to be central to "the present synthesis." The synthesis was illustrated with Neutra's Gill House in Glendale, California. In this work, "Neutra relied on the sweeping vistas . . . the room has become a clean reticent frame for the changing drama of the landscape, as well as a quiet background for life and thoughts".[51] Architecture had grown taciturn so that the dweller might think and focus attention on the landscape's performance.

No architectural feature other than a glass wall could so well embody this contrast. Glass walls were a leading index of modern design and when bundled with a view became also the most apparent sign of proximity to nature. They functioned simultaneously as a register of modern construction and nearness to nature, joining both ends of the romantic-technic scale from which *Progressive Architecture* got its architectural bearings. Earlier in the century, glass itself appeared, to Paul Scheerbart, among others, as the technological material *par excellence*: promising to remake society by virtue of its material properties and limitless design possibilities. Even at mid-century, glass walls remained evidence of sophisticated building practices, requiring wide openings, transport to an often isolated site, precise dimensional tolerances and great care

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50. In *Handbuch moderner Architektur. Eeine Kunstgeschichte der Architektur unserer Zeit vom Einfamilienhaus bis zum Stadtebau*. Reinhard Jaspert, ed. (Berlin: Safari Verlag, 1957).

51. "The Present Synthesis," *Interiors* CVI:7 (February 1947) 77.

during construction, not to mention the sensitive control systems needed to offset greater temperature fluctuations induced by glass walls. Few elements could better serve as a visible sign of modern architecture's technical prowess.

Glass was a stunning technological achievement but its true imaginative potency lay in its transparency; a leading sign of architectural skill was nearly invisible. This was part of its magic, as well as its purpose: fostering intimate relations between inside and out. Like a good servant, the glass wall kept a low profile, despite its central role in the visual appearance and ideological functioning of the private home. Though it was understood as a technical achievement, it yielded nothing so much as a seemingly unmediated relation with nature. It resonated as both an *advance* in engineering artifice and a *return* to natural virtues. The two were fused together: "The use of large glass areas which gives modern architecture its unique quality of spaciousness and kinship with the out-of-doors is inseparably linked with such technological advances as double glazing and related thermal controls."[52] The glass wall was at once a hard, polished, "perfect" surface and the very face of burgeoning nature. Being at the same time a secure enclosure and a broad opening, the glass wall guaranteed both refuge and prospect. Technology guaranteed the former while nature donated the latter. Glass walls became a kind of shorthand for the connection between inside and out. The view in particular was the primary sign that the glass wall was "working" as intended.

Historiographic sources for this understanding of glass walls may be found in the concerns of a new generation of modernists. In *A Decade of New Architecture*, for example, Siegfried Giedion reviewed the previous foci of modern architecture as they appeared in the international congresses of CIAM. "CIAM is concerned with those problems that are just over the horizon. In 1928 it was the industrialisation of building methods; then standardisation; then the development of contemporary town planning. Now we consciously promote another step. A step towards a rather intangible subject; aesthetic problems or, you may prefer to say, emotional expression." For Giedion "emotional expression" signified a turn away from the technical toward something

52. *Architectural Forum* (November 1948) 140.

more human or more satisfying to human needs. While he was careful not to limit what that might mean, he singled out the single family house, which then had he felt, "the greatest range of opportunity for modern architects and has given rise to many of the best examples of contemporary architecture." The best of these examples or at least "the largest number of well conceived single family houses is to be found in California," which meant that they owed a debt to the work of Richard Neutra.[53] Just the year before, Giedion had located "Neutra's high rank" along an arc spanning from geometry and construction to nature, a "transcendence from architectonic vision to a natural form of life." He thought Neutra's talent was manifest in his animation of technology concurrent with his respect for nature: "The power to leave nature undisturbed and simultaneously to draw her into a specific emotional situation, reveals the artist no less than the power to transfuse a ferro-concrete skeleton with psychic value."[54] Animating technology had been the concern for a first generation of modernists; respecting nature was more evident in the work of a second generation. By achieving both simultaneously, Neutra had in Giedion's eyes brought modernism to a new historical horizon without betraying its original technical inpiration.[55]

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53. Siegfried Giedion, ed., *A Decade of New Architecture* (Zurich: Girsberger, 1951) 34, 65ff. California was to Giedion particularly suited for this development because of its hospitable climate and the "free and easy clients who are unfettered by prejudice." The interest in humanizing architecture was shared as well by those involved in visual education. See in this regard Elizabeth Mock (1944) 13 and 1953. Also see Gillies (1946) 13, *82 Distinctive Houses* (1952), which makes "emotional content" an increasing concern of architecture.

54. "Introduction," in Willy Boesiger, ed. *Richard Neutra. Buildings and Projects* volume 1: 1923-1950 (Zurich, 1950) 8-10. Neutra quoted Giedion approvingly in a book published the following year, *Mystery and Realities of the Site*.

55. If anything, it was all too easy to read an earlier focus on technology and engineering as a healthy "housecleaning" after the abuses of historicism. If it turned out to be extreme or at least unsubtle it was nonetheless necessary. Since certain modes of functionalism evacuated architecture of external meaning, reduced it as Mies might say, to a positive fact, then the technical facilitation of relations with nature can be seen as a spiritualization of the means by association with the ends. Regarding the view in particular, Geoffrey Baker and Bruno Funaro wrote that while so much natural phenomena are measurable, even sunlight, views are not. Views, they wrote, were light with feeling and belonged to a non-replicable emotional realm. Specifically: "View is an emotional desire, light control a set of scientific calculations. When light control demands a clearstory, emotion demands a picture window." In *Windows in Modern Architecture* (New York: Architectural Book Publishing, 1948) 11.

Another provocation to seek some shelter in nature may be found in the aftermath of World War II. As if any further proof were needed, technology had displayed during wartime its dark side. Widely evident at the beginning of the Cold War, architectural literature also reflected a new anxiety regarding technology. "Only within the last few years has the terrible question of the machine been put in terms awesome enough to produce a general realization of the crisis of man," ran an argument in a special issue of *Architectural Forum*. The issue attempted to summarize the increasingly technical knowledge essential to the contemporary practice of architecture. Architecture was inescapably bound to "collaborate truly with technology," but it must avoid the "technologist's approach," which had been a partner to global warfare. Even short of physical destruction, this technologically-induced crisis posed a constant threat to the mind as well. The awesome forces released by technological progress had precipitated a state of psychic emergency. Spiritual well-being required of the architect more than simply the "mechanical satisfaction" of physical needs, however indispensable that might ultimately be. Editors at *Architectural Forum* believed the architect was in a unique position to effect a remedy, being "the one force capable of generating a reversal of the continuing alienation of man from himself." "What can we do to retrieve our lost sensibilities?" they wondered aloud.[56] [Fig. 6.11]

If sensibilities went lost in an increasingly artificial world, then a conceptual symmetry seemingly endemic to the period demanded they be retrieved in a natural world.[57] At a time when "suburban man" spent most "of his day in an artificial atmosphere", it fell to the architect, "whose job is to create man's immediate physical environment", to make a place to comfort the body and delight

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56. *Architectural* Forum (November 1948) 145. In this regard, architecture bears an important and hithertofore unstudied relationship to the growth of environmentalism in the United States. Aldo Leopold and Mumford were writing often about the same topic from different vantage points. Hans Huth thought that the call to nature was pervasive during the 1950's: "No power could ever divert the increasing support public opinion is giving to the idea of bringing nature and man into a harmonious relationship." In Hans Huth, *Nature and the American. Three Centuries of Changing Attitudes* (Berkeley: University California Press, 1957) 4. The topic is worth much greater investigation.

57. It was a common perception at the time that a renewed desire to return to nature was a reaction to the rapid march of mechanization. See, for only one example, Edgar Kaufmann, Jr., *What is Modern Interior Design?* (New York: Museum of Modern Art, 1953) 18.

the mind. In architectural terms this meant relating "the building to the land, machine forms to the forms of nature." While perhaps vague, the formula presented no theoretical difficulties: "There does not seem to be the fundamental conflict between the forms of technology and the forms of nature that categorical thinking would lead us to believe." More than this though, advanced technology actually necessitated renewed relations with nature. "On the one hand, the complex demands of modern life dictate the most precise and scientific manipulation of building. On the other, increasing mechanization seems to have awakened a new longing for nature which has to be met in building."[58] Ideologically bound to the narratives of technological advance that were present at its inception and promoted in its early histories, modern architecture reached out increasingly to nature.

The private house in particular was probably the most important site for resolving this tension and *Architectural Forum* included a study entitled "houses" that contributed the issue's only focus on a single building type. While progress in the house was still hampered by lingering "sentimental concepts", the editors were pleased to note that "one aspect of house design that has received more attention than others is the relation of the house to the out-of-doors." A house then under construction, designed by Kenneth C. Welch in Grand Rapids, Michigan, was presented as "the last word in applying up-to-the-minute technology to creative residential design." Built on a hilltop, no less than eight thumbnail sections of the design depicted the glass wall and its mediation of inside and outside.[59] [Fig. 6.12]

The house *Forum* chose to illustrate as the latest in building science is particularly interesting given the architect's own area of technical expertise. In the first publication of the completed house several years later, *House and Home* editors noted that Welch was "an expert in the scientific approach to design for merchandising. Welch went at this house design as if it had been a shopping center." Though he had built houses "in the gay Timber Gothic days before World

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58. *Architectural Forum* (November 1948) 91, 146-7.

59. *Ibid.* 151-2.

War I," this was his first "modern" house. Before this, he was known almost exclusively for his commercial designs, which, as the article noted, served him well in this project. "With a store designer's eye," Welch recognized two things: that the site could serve as a visual asset for the interior and that most viewing goes on at night and "he used his full lighting science to capitalize on both." He placed nearly fifty feet of "a glass window wall to the view, then slanted the glass *outward* to kill" distracting reflections on it; the ceiling was slanted upward toward the window to reflect light deep into the living room, "to kill the cavern effect and bring it all closer in brightness to the competing sky." With this design and with nightime illumination, he made of "his windows a showcase for this out-of-doors display". As a result, the natural world outside Welch's windows became "a spectacular outdoor stage". The living room, in effect, was a booth for watching the world and the technology Welch brought to bear on the house was first and foremost a technology of perception.[60]

The perceived dichotomy between a technically rationalized approach to the modern house, associated with functional planning, spare geometries, and "as full of electrical equipment as a warship's gun turret"[61] and a romantic approach, which was characteristically associated with the presence of nature, defines the ideological spectrum within which residential design in the 1950's operated. Working exclusively at either extreme of the spectrum was fraught with risk of either alienation or irrelevance, unless one were a Mies van der Rohe or a Frank Lloyd Wright. But, for the reasonably talented architect, say, an Albert Henry Hill, the middle ground offered the best chances for success. The glass wall and its logical link with a sylvan landscape transcended architectural orientation and style categories in American residential design by condensing current concerns about technology and the landscape it was remaking. The design of modern houses

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60. "Mr. Welch builds a living center," *House and Home,* (October 1952) 98-103. To take only one further example, "In a glass pavilion, the spectacle of nature is always before you." In "Glass house is suspended from steel frames," *Architectural Record* 119:6 (Mid-May 1956) 206-7. The house was designed by architect Jacques C. Brownson for his family in Geneva, Illinois and more than recalls the work of Mies van der Rohe.

61. In *House Beautiful.* Cited in *Blueprints for Modern Living*, Howard Singerman, ed. (Cambridge, MA: MIT Press, 1989) 173.

should, as Breuer put it, bring together these "most contrasting elements of our nature."[62] But in bringing them together both were altered. Technology had been given a friendly face. Its absorption into daily life was facilitated by the faith that it could be made to disappear as easily as sliding open a glass door to step outside. For its part, a new nature looked back from beyond the glass wall. Its more inhospitable aspects having been filtered out by technical means, the new nature could be understood as an extension of the domestic sphere. Nature seemed itself to have been tamed since nothing of much substance held it at bay.

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62. *Architectural Forum* (November 1948) 147.

Chapter 7: Concealment: Literal

> The two trends--toward nature and toward technology--had a common ancestry in the eighteenth century and were never entirely divorced in practice ... The best designers of our epoch almost without exception have produced works which demonstrate clearly man's growing interest in integration with the natural world which accompanies his increasing control over it through science. In doing so, designers express no sense of contradiction. The opposition of nature and machine is a device of interpretation, not a fact of experience.
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> -Edgar Kaufmann Jr., 1953[1]

> . . . technology is not the mastery of nature but of the relation between nature and man.
>
> -Walter Benjamin, 1928[2]

The glass wall and accompanying landscape view made the relationship between nature and technology seem more like a partnership than an opposition. But while view-endowed glass walls resolved for a generation the tension between two polar forces, they did so in a very particular way. Although the terms are entirely interdependent, their "effects" were disaggregated and reconfigured within a hierarchy of other values. Certain aspects of both technology and nature were either emphasized or downplayed in terms of their visual presence in the home. To borrow historian of technology Peter McCleary's terms, the "amplification" of nature required a parallel "reduction" of technological artifice.[3] These terms are intended to apply not to the actual use of technologies in the home but to the appearance of them, the degree to which they were registered in the visual environment.

While highlighting one thing or another seems both desirable and inevitable in design, it necessarily requires a corollary de-emphasis or concealment of something else. This becomes an issue for architectural modernism when that something else is technology: revelation of artifice was part of a modernist rhetoric that appeared compromised by a less frequently voiced program

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1. Edgar Kaufmann Jr. , *What is Modern Interior Design* (New York: Museum of Modern Art, 1953) 20.

2. Walter Benjamin, "One-Way Street," in *Reflections*, trans. Peter Demetz, (New York: Schocken, 1986) 93.

3. See Peter McCleary, "Some Characteristics of a New Concept of Technology," *Journal of Architectural Education*, vol.42, no.1 (Fall 1988) 2-9.

of technological concealment. Indeed, Reyner Banham suggested as much at the close of the 1960's. A troublesome historiographical problem as well as an internal contradiction were the result of certain "concealments," as he put it, that were discernable within a modernist aesthetic otherwise "conspicuously given to honest exhibition of structures and services."[4] Attending to the structures and services thought to be exclusive to architecture had been in many modernist tracts the key to aesthetic integrity. Concealing them was therefore no small matter and the question must be addressed: to what end?

Despite the clandestine overtones, I mean to imply no conspiracy of deception. Distinctions between kinds of spaces are necessary to guide design decisions; they open the possibility of ordering space purposively. More specifically, Amos Rapoport has noted that "...architects have suggested that one can usefully distinguish between technological space, such as bathrooms and service spaces, which is changing as equipment and services change, and symbolic, largely living, space, which is constant and usable almost indefinitely."[5] This is not to say that one space would be any less technological than the other. A glass-walled climate-controlled living room is no less a space of technology than a mechanical closet. It is rather that one space actually houses the mechanical components, such as a furnace or fuse box, while the other receives the intended benefits, such as warmed air or light. Having made such distinctions however, architects might then be reasonably expected to emphasize in aesthetic terms one or the other. If architects chose to emphasize a house's symbolic or living space, we might expect the symbolic space to be oriented toward something consistent with its symbolism, something that is also thought to be unchanging or at least relatively stable like, say, nature.[6] In discussions of views as well there is a marked tendency first to split the technological mechanism from its benefit--that is, comfort--and second to present that benefit in terms of the presence of nature. In turn, the seeming immediacy

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4. Reyner Banham in his chapter on "Concealed Power" in *The Architecture of the Well-tempered Environment* (London: Architectural Press 1969).

5. Amos Rapoport, *House Form and Culture* (Englewood Cliffs, NJ: Prentice-Hall, 1969) 80.

6. This is not at all an inevitable consequence though. Louis Kahn similarly distinguished spaces that serve from those that are served but attempted to make visible both parts of the architectural expression.

of nature, the sense that it has been brought indoors, could be the chief index of the presence of technology.[7]

In other words, the natural setting emerged both because of and despite artifice. The perceived contradictions between using increasingly sophisticated means to achieve natural ends gave rise to a number of interesting visual strategies at several scales. At the scale of the site, architects strove to remove from view evidence of a larger urban system while providing at the same time all the benefits to be drawn from modern infrastructure. The site became the scene of a conflict between capitalist forces of development that sought only profit and the family that would seek there a space apart from the appetites of the marketplace. At the level of the house, the sophisticated technology so often associated with modern architecture was downplayed or hidden in order to emphasize intimacy with nature. Otherwise, the presence of technological mediation would, many believed, reduce the immediacy of nature.

Strategies to amplify nature at both of these scales were already well-understood in the nineteenth century. Much more unique to modernism was the embodiment of selective strategies as part of the physical properties of a material, most notably, glass. In this sense the wall and window were reconceived as a filtering system. Refining the outdoor environment for incorporation indoors became a function of the material properties of the enclosure rather than a more active exercise of aesthetic preferences. Even at the level of mechanical equipment itself, technological traits were downplayed, especially once the specific technology involved had become routine. Views of nature were operative in domestic architecture at all four scales precisely as a means of emphasizing the experience of nature over the experience of technology.

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7. Concealment, as noted elsewhere in this study, is a significant theme of Picturesque theory. There however, what is concealed from view is less strongly marked as technological than it is seen as being utilitarian.

Site

> Dream houses may be perched on clouds and rocked in nothingness, but the quality and value of a real house is largely determined by the obtrusive reality of site and surroundings.
>
> George Nelson and Henry Wright, 1945[8]

> O God, I could be bounded in a nutshell, and count myself a king of infinite space, were it not for my bad dreams.
>
> Prince Hamlet (II.ii)

The suburban site was often portrayed as an encounter between man-made improvements on the one hand and the purposes of dwelling they were to serve. Man-made forces included not only the mechanical systems that would be incorporated within the house but the things that had created the site from a parcel of land: earth-moving equipment, power lines, roads, sewer lines, legal instruments like deeds, financial instruments like mortgages, facilitators like real estate brokers who brought together buyers and sellers, even fears about resale value that influenced buyers' site preferences.[9] Beyond mere profits, the purpose for which these forces came together to make a site was to serve as a home for a family. Dwelling was thus a place and a deeply personal act.[10] It was a welcoming spot at the end of the day and a setting for the instruction of a next generation. If the image of home has remained an important one in American culture it is due to its embodiment both of intimate values and civic virtues.

This encounter was sharply drawn in Richard Neutra's first book published in the United States, *Mystery and Realities of the Site* from 1951. The eponymous and singular mystery was the originary quality of a site, easily recognized by the "primitive men" who might have inhabited it.

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8. In *Tomorrow's House*, (New York: Simon & Schuster, 1945) 8.

9. Discussed to varying degrees in Catherine Bauer, *Modern Housing* (Boston: Houghton Mifflin, 1934) 53; Royal Barry Wills, *Houses for Good Living* (New York: Architectural Book Publishing, 1940) 7; George Nelson and Henry Wright, *Tomorrow's House: A Complete Guide for the Home Builder* (New York: Simon and Schuster, 1945) 59ff.

10. Somewhat schematically, James Howard Kunstler relates that it was a "neat little semantic trick introduced by realtors" to speak of a "house" to a seller and a "home" to a buyer of real estate. In *The Geography of Nowhere. The Rise and Decline of America's Man-Made Landscape* (New York: Simon & Schuster, 1993) 165.

Neutra stressed that the "site" was not simply a condition of topography alone but a product of ideas of inhabitation. Ancient dwellers regularly overlaid the topography they found with a range of human purposes, the need for defense being perhaps the most important "reality" back then. They projected their desires on the land but, technologically speaking, without any great insistence. The capacity of a site to fulfill such purposes with minimal human intervention appeared to ancient dwellers as if the earth itself mysteriously recognized their concerns and offered assistance in the form of ready-made places for defense or hiding. The "mystery" of the site arose because dwelling needs were so congruent with the limited technical means of satisfying reality. [Figs. 7.1-7.3]

In modern times, according to Neutra's story, the land had become overlayed by new and plural realities such as bulldozing, powerlines and transformers, inadequate construction budgets, fears of denied mortgages, and mass consumption, which transformed the ageless land into "so and so many fifty-foot lots on the market." The desires of the marketplace were being projected on to the landscape; where topography was recalcitrant, it was indeed altered to fit the projection. The new realities were heralded by "a shrill alarm clock that signals the dawn of the day of opening--the opening of the subdivision." Buying and selling land on the modern marketplace had disrupted the former harmony and continued to "eat into the dream of the site." The landscape mankind had evolved with since prehistory and absorbed into its collective unconscious was no longer even recognizable.[11]

The task of the architect was to enable modern men and women to see nature again.[12] Neutra was careful to deny any "sentimental reversion" to animism and favored frankly conceding the "harder facts" of modern life. The architect had to work within the limits of the modern world and accept

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11. Richard Neutra, *Mystery and Realities of the Site* Scarsdale, NY: Morgan and Morgan, 1951) 12-14.

12. This view of course is not exclusive to Neutra. "For its effective salvation mankind will need to undergo something liek a spontaneious religious conversion: one that will replace the mechanical world picture with an organic world picture" was how Mumford stated it in *The Pentagon of Power* (New York: Harcourt Brace, 1970) 413. It emerges as well in Mumford's earlier writings: *The Culture of Cities* was in part a warning that the final stage of urban overdevelopment was "Nekropolis" (New York: Harcourt, 1938) 291-3.

the commodification of sites. These realities would determine what the new mystery would look like since they determined the makeup of modern man. While modern realities were made manifest in Neutra's book by the forthright geometries and uncompromising materials of his architectural design, the mystery, judging from page after page of text, images, and captions, was the view: "sweeping views," "full views," "a view-commanding balcony," "a slatted view," "unobstructed views," "panoramic view," "far view," and an "agreeable outlook" all figure prominently in this relatively short book. Somehow a mystery suitable to the sensibilities of the modern dweller inhered in a view of nature mostly through a wall of glass. The combination of geometric architecture and a natural view was to Neutra a new and uncommon beauty, nearly sublime in its connotations. Beside an image of a massive cornice cantilevered over the barest hint of a glass wall, beyond which is a lush and deep landscape, Neutra wrote "Beauty is not for the timid." Pursuing the refinement of technology even to its most visually counterintuitive extremes was thus the key to a new deeper understanding of nature.

Since the modern site was so shaped by human projections through the use of technical means, it revealed much more about modern society than about the land itself. Neutra was clear on this point, writing that, to claim a site "has *a view* . . . is really a figure of speech. What we are actually concerned with are *human responses*, organic and social necessities, which can be gratified *on* or *through* this site. To us the site is not animated in the early sense. It has no more a *view* than it has eyes."[13] A view in other words was an opportunity for the visual gratification of desire at home.

As he was quick to point out though, the landscape was altered without much thought of visual pleasure. In most cases this could push an individual toward schizophrenia: the mind is naturally driven to make sense of its radically altered visual environment but it does so with perceptual tools formed in the evolutionary past. Evolution, Neutra wrote elsewhere, had prepared the human race "for a life outside in unhampered nature." But, "the farther man has moved away from the balanced integration of nature, the more his physical environment has become harmful."

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13. Neutra, *op. cit.*, 15. Emphasis in original.

"Self-annihilation" was the next stop on the historical trajectory Neutra charted.[14] Responsible now to the continuation of a species, the architect had to provide visual experiences that would correspond to mankind's primordial perceptual equipment. He was optimistic that the design sciences would advance enough to guide fitting design at a nearly molecular level but he realistically concluded that that day had not yet come.

> If we cannot yet produce a biologically perfect interior by technological means, our decision must simply be against making an interior fully dependent on intricate technology. We must still design living space, and a current environment for the race, so that the neurologically salubrious agents of nature outside are freely admitted and kept active to as great an extent as possible.[15]

Orientation to the outdoors and specifically to a landscape was less a design option than a biological mandate. This in turn guided much of Neutra's thinking about house design.

> We look at a lot, a piece of property, and say it has a *view*. . . . What we mean is that if we make a fitting floor plan, the man and woman who live in the house built from it will see over the bay or the valley as they sit down in their breakfast nook. . . . our breakfasting party will enjoy the morning sun while pasturing their eyes through the view window.[16]

While respecting the frailties of humankind's perceptual equipment, Neutra proposed as well a gradual reconstruction of the individual psyche to accord better with changed conditions in the world. For ancient animist dwellers with limited means of altering their world or themselves, inner psychic patterns had converged with patterns and opportunities in the external environment. Recent advances in the ability to transform the human habitat, however, had outstripped mankind's evolutionary adaptations and almost overnight the modern soul had awakened to a brave new reality. The task of architecture was not to return to a pre-industrial unity, but to usher the mind into the twentieth-century. The original harmony between savage and site had been replaced in technological civilization by a new understanding of site: an opportunity for sensory stimuli that could be adjusted to precisely balance tensions that were brought home in a

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14. *Survival Through Design* (New York: Oxford University Press, 1954) 357-8.

15. *Ibid.*, 195.

16. Neutra (1951), *op.cit.*, 15.

physiological register. Based upon science's ever-expanding knowledge of physiological response to stimuli, Neutra advised a kind a environmental eugenics: precise adjustments in the habitat to elicit desirable changes in the species. His urban critique indicated that such psychic interventions transpired all the time, whether intended or not. Neutra thus merely proposed supervision of that process.

It would be difficult to find a discussion of site as grounded in physiological psychology as Neutra's was, but the encounter between and subsequent resolution of an urban presence and a country ideal was nearly always evident. A house surrounded by countryside could offset in visual terms the knowledge of just how close the city really was. To the degree that the city was portrayed as dirty, sprawling, crowded and ethnically fragmented, viewed landscapes were usually unpopulated and visually whole. If the city was characterized by shocking adjacencies of wealth and poverty, a view, since it overlooked only nature, was generally felt to be classless. If the city made evident modern conditions of anonymity, anomie, and the loss of autonomy described by so many contemporary social critics, an extensive view provided a setting for a visual fiction of private control over a spacious domain. In short, a view offered a kind of compensation for modern life by imaginatively reconstructing a landscape the city had already overrun. The value of a view evolved simultaneously with criticism of the city.

A particularly interesting intersection of these parallel discourses emerged around the theme of commuting. With references to commuting, discussions of suburban houses revealed their connection with the city without however jeopardizing their country status. This was a theme of suburban development from the nineteenth century, predating even the regular commuting schedules of railroads.[17] In the twentieth century modern houses were frequently described as being convenient to the jobs and cultural amenities of a city but were depicted in an uninhabited, apparently remote landscape. Proximity was registered by a word or two regarding the commute.

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17. See, for example, Sam Bass Warner, *Streetcar Suburbs* (Cambridge, MA: Harvard University Press, 1962); Henry Binford, *The First Suburbs. Residential Communities on the Boston Periphery 1815-1860* (Chicago: University of Chicago Press, 1985); Kenneth Jackson, *Crabgrass Frontier* (New York: Oxford University Press, 1985).

Architect Edgar Tafel's house, for instance, was located on "a deceptively rural site," the "major asset" of which was its view. The deception was due to the fact that, while it looked remote, the house was "within commuting distance of Manhattan."[18] [Fig. 7.4] Especially after World War II, commuting became a subgenre of suburban criticism that, nevertheless had begun to indicate a degree of status.[19] Vehicular comfort became in fact a prominent theme of automobile manufacturers. While easy commutes were part of the appeal of a sub- or ex-urban house, the convenient hours spent behind the wheel each day tended not to be illustrated. If anything, comfortable daily commutes to remote sites were taken to be just another facet of technologically-enhanced modern life. In 1951 they were hardly considered visionary: "it is no longer starry-eyed to envision a middle-income family having a country home which still allows the wage-earner to commute a hundred miles distance each day with ease."[20] Commuting, in other words, registered the presence of the city but rendered it in terms of unseen time spent in relative comfort.

When Robert Woods Kennedy described the "four broad attitudes" prevalent in 1953 regarding the issues of siting a house, they were measured by this coordinate system of country and city or nature and culture. A house could be either integrated or aloof from either the natural or the artificial. Wright, of course, represented the integration of the manmade house with the natural surroundings. His was an architecture that merged "*with*" the ground. At the opposite end of the scale were the Purist villas of Le Corbusier. A building like the Villa Savoye, Kennedy thought, was formally aloof from nature, a point underscored by its being "*off*" the ground. Elevating a building was especially good for the view. A project like Mies van der Rohe's Resor House was abstract, a "man made jewel placed on the ground," with "its mechanical and artificial comparison

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18. "Tafel Residence," *Architectural Forum* (August 1948) 78.

19. See, for example, C. Morgan, "Commuter's Club," *Christian Science Monitor Weekly Magazine* (8 July 1944) 5, and H.H. Smith, "Gosh, I envy commuters!," *Saturday Evening Post* v.226 (26 June 1954) 30ff. Length of commute as indication of status is discussed in *Fortune* (May 1959) 109. Downing had already remarked on the custom of commuting as the practice of extracting economic means in the city to enjoy the country. See "Hints to Rural Improvers," *Rural Essays* (New York: Leavitt, Allen, 1857) 111, and the discussion in Peter Schmitt, *Back to Nature* (Baltimore: Johns Hopkins University Press, 1969) 5-6.

20. Paul Lazlo, "The House of the Future," *Fortnight* (24 December 1951) 16.

with nature . . . stressed." Nature's continuity was broken literally but was spectrally maintained, being mirrored and reflected through the house. A fourth type, not linked with any specific architect but representing the "majority of houses," was on the ground but not of it, "reminiscent" perhaps of the other types in various ways but not connected with nature in any larger sense.[21] Breuer's schema was even simpler: there were primarily two relations of house to site. The first emphasized the sense of security and closeness to the land. It fostered a sense of refuge and was recommended for families with young children. The other approach highlighted a sense of liberation and excitement more suitable for a mature audience. This was accomplished by attending to the view or by elevating the house to create one.[22]

What emerged from the various ways in which sites were discussed and approached was not just the perception that sites were the result of competing forces. Those forces would inevitably remain in some form. This meant that what the dwellers would see out their windows was at least partly up to the designer. The designer's choice of what the house would "face" became therefore another prominent theme in the discussion of sites and siting. View and access had underpinned the differentiation of country house facades in the nineteenth century into front and rear. Though sometimes in conflict with one another there was usually enough land to accommodate an unencumbered view and a gracious entrance on to the site. With smaller sites, the front of the house directly faced the street. Increasingly, with demographic and technological changes, the street was a place of strangers, random passersby, and new infrastructural developments, such as telephone poles and electrical wires. A number of observers noted these changes with alarm and thought that such change would undermine the fragile environment needed for the incubation of

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21. Robert Woods Kennedy, *The House and the art of its design* (New York: Reinhold, 1953) 469.

22. In Peter Blake, *Marcel Breuer: Sun and Shadow, the Philosophy of an Architect* (New York: Dodd, Mead & Co., 1955) 40. He favored the hillside house since it was a combination of the two. Breuer was not unique in this schema. It was fairly common a century earlier and remained so throughout discussions of site. Each site, thought Louise Pinkney Sooy and Virginia Woodbridge, had an inherent emotional quality whether "the low, protected, and sheltered spot" or "the high lot with a view . . . Because of its sweeping view, the high site seems inspiring and invigorating; it has a grandeur, an uplifting quality not to be found in the low lot; but if surrounded by hills, the latter has its own characteristic feeling--that of protected, sheltered security." In "The Analysis of Sites," *Plan Your Own Home* (Stanford, CA :Stanford University Press, 1940) 17-18.

middle-class family values. Architects and writers suggested that by placing key living areas at the rear, with openings for easy access, a private sense of the outdoors could still be maintained and enjoyed. An unpopulated view, whatever the extent of artifice required to guarantee it, served as a kind of proof that the private realm was essentially intact. While the debates regarding the proper orientation of the house were certainly audible in the nineteenth century, the increasing use of mechanical equipment indoors made the question of exposure, or what in the nineteenth century was called "aspect," entirely subordinate to questions of view or "prospect."[23]

Other distinctions could then be associated with differing attitudes toward view orientation. Elizabeth Mock, for instance, thought traditional homes were haunted by concern for the effect they have for the strangers on the street. "The emphasis of the average traditionally styled house is largely upon the face which it presents to the street, and this façade is made as impressive as possible."[24] Modern houses, in contrast, were concerned with what the occupants faced. Ten years earlier *Architectural Forum* wrote that declining traditions were most visible with the greater attention given to open planning and the practice of "turning [the] house around on the lot" and placing windows where clients wanted them.[25] In fact, facing the street was at least by 1913 already a sign of an old attitude toward nature:

> Old houses, as a general rule, had their living-rooms facing the street, and unless there be a chance easily to arrange the plan to accommodate a good rearward view, your being

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23. The issue of "face" will be explored in more detail in the author's study, "About Face: The Reorientation of House and Self," to be pursued at a later date. For now, see Fiske Kimball's "The American Country House," *Architectural Record* XLVI:4 (October, 1919) 363, where he states that the "street front" is the principal facade of the suburban house, and John Taylor Boyd's "Some Principles of Small House Design, Part IV Planning," the following year, where Boyd "regrets that so many Americans still place the best part of the house--the dining and living portions downstairs and the best bedrooms upstairs--along the street front, instead of overlooking the garden, where, if the garden is presentable, they certainly belong." It is best to put the "best part of the house" at the back. In *Architectural Record* XLVII:2 (February, 1920) 141.

24. Elizabeth Mock, *If You Want to Build a House* (New York: MOMA, 1946) 91. Mock acknowledged that although modern houses succeed by concentrating on what "can best be appreciated by the people who live in them," they may at times "turn a rather unfriendly back to the street." Modern architects should consider instead some "gesture of hospitality."

25. In "The Small House: 1935," "defiance of tradition is frequently accompanied by turning the house around on the lot . . . Windows are put where they are wanted, not where the copy books say they should be." *Architectural Forum* (October, 1935) 230.

> below the road, or too near to it, might be a serious objection. Our forefathers had little time to sit about and view the beauties of Nature and it is very likely that their taste leaned but slightly in such a direction. The Colonial farmer was a working man: hardly a gentleman of leisure, and consequently he built, for the most part, on the highway to fit the practical part of his existence.[26]

In the 1890's a view of the street might have served the needs of diversion, as a means of breaking a certain monotony of indoor life. By the the 1930's a view might be proposed as a way to escape the greater diversions increasingly available in the home.[27] While its rear facade acknowledged some of the informalities of daily domestic life, Frank Lloyd Wright's Winslow House of 1893 nevertheless was entirely respectful to the street. His design for the Jacobs House of 1936, with its glass walls to the private rear yard and its minimal openings toward the street, stated the reorientation unequivocally.[28]

By the 1950's, a number of modern houses were built that eschewed civic gestures altogether and concentrated instead on the private rear of the house. In most cases this involved a wall of glass oriented toward a view. The glass wall was advocated at the time at least in part because it too stabilized the view and made the outside a more permanent feature of the inside. Craig Ellwood's design for a house in Los Angeles, for instance, featured "a relatively closed face to the street and a completely open side to the lawn and vistas to the rear."[29] [Figs. 7.5-7.6] So closely bound to a

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26. Charles Edward Hooper, *Reclaiming the Old House*, (New York: Mc.Bride, Nast, 1913) 16.

27. In the 1890's "diversion was assiduously sought" and often found in streetscapes while in the 1930's both within the home and on the street "methods of diversion are legion, and sanity demands escape from them rather than yielding to them." Eleanor Raymond in "Giving Character to a Nondescript House," *House Beautiful* (August 1933) and cited in Doris Cole, *Eleanor Raymond*, p.28. This stands in stark contrast to Oswald Spengler's claim that houses "in all Western cities turn their facades, *their faces*, ... toward the street. ... And these stone visages that have incorporated in their light world the humanness of the citizen himself and , like him, are all eye and intellect--how distinct the language of form that they talk, how different fromt the rustic drawl of the landscape!" From *The Decline of the West*, v.2 and cited in J.B. Jackson, *The Necessity of Ruins* 65.

28. The sites were different in each case but so were the times and the Jacobs House by its design precluded the sort of urbanity that the Winslow House took for granted.

29. "West LA, California," in special issue on "The Private House," *Progressive Architecture* XXXVI:5 (May 1955) 116.

landscape view was the glass wall that even large windows came under ridicule when they faced the street. "Above all, a picture window is supposed to bring in a view. In no man's language is the street considered a view," went a typical formulation.[30] Put more stridently, a large window at the street was "a foolish waste of glass, windows should allow those inside to look out but should not encourage neighbors or passers-by to look in."[31] Indeed, by 1958, *Sunset* described a blank facade facing the street as a "venerable custom."[32]

Having necessarily to live on the streets their architects would have them abjure, some clients seemed fated to fall into the sort of schizophrenia Neutra had worried about. Robert Woods Kennedy noted that some clients actually demanded a "traditional front, modern behind."[33] Adherence to modernist principles instead required however that clients not be two-faced. They needed to accept the altered circumstances of the present day that had irrevocably remade the environment they lived in. Modernism's rebellious rejection of traditional patterns of form and old ideas of dwelling and relation to the site were taken as a challenge and an invitation to society as a whole. As editors at *Architectural Forum* put it in 1939: "Modernism is unquestionably a revolution--an about-face in our conception of how we should go about the building of the sort of environment that life and our abilities prescribe."[34] The reorientation of the house on the site in order to face nature rather than the city from which it grew was a large part of the "about-face" that modernism represented.

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30. In "Is There a Picture in Your Picture Window?" *House Beautiful* (January 1950) 35.

31. Ray Faulkner, *Inside Today's Home*, (New York: Henry Holt, 1954) 321.

32. Sunset Magazine, *Western Ranch Houses by Cliff May* (Menlo Park, CA: Lane Publishing Co., 1958) 14.

33. Robert Woods Kennedy, *The House and the Art of its Design*. (New York: Reinhold, 1953) 386. This was a common theme: "House with Two Faces in a Suburb," Jean and Don Graf, *Practical Houses for Contemporary Living* (New York: Dodge, 1953) 78-79; "How to Flop Over a Wrong-Way House," *House and Home* VI:4 (October 1954) 140-43, as well as"A House Divided," *Architectural Forum* (June 1948) 110-13, mentioned above.

34. In "The House of Tomorrow," Architectural Forum, *The Third Book of Small Houses* (New York: Simon & Schuster, 1939) vi.

While few would have been willing to do without the urban infrastructure that made suburban sites feasible, the value of such sites lay in their distance from the perceived problems of the city. In order to be comfortable in nature, a suburban house needed close links with urban amenities; in order to "face nature" though, a suburban house had to turn away from the man-made city. This thinking underpinned Wright's admonition to move as far from the city as one could. He revealed the emotional logic behind demographic sprawl.[35] The irony of course was that from the moment that new technologies made relatively remote sites more broadly available, they began to menace the "natural" integrity of those sites. However contrived, a landscape view indulged the incongruity. Visual, if not actual distance from the workplace and material production was in nearly all instances vital to the proper functioning of a natural orientation.

As a result, the meaning of "site" was altered. Professional journals mentioned views as site features far more frequently in the twentieth century than in the nineteenth. More tellingly, views come to be explicitly recognized in economic valuations of land in the early part of this century. As discussed above, land economists puzzled over ways to value a view, a component of land value that was not actually on the site. Loaded with potential views, hillsides, which for practical reasons were mostly undesirables sites earlier in the century, became a new class of site, with architects claiming expertise in the design of hillside homes. Corresondingly, real estate advertisements began more regularly to describe sites predominantly in terms of views: descriptions like "view lot," "beautiful view lot," "Immaculate View Home," "Beautiful View Home," or "Ocean View home," were not uncommon. Where once a view was an appreciated site circumstance, it became nearly a necessity; absence of a view was frequently seen as a site limitation. Neutra concluded *Mystery and Realities of the Site* with some advice to consider when selecting a home site. "See what you can see from the place," he counseled. Imagine how to screen out blemishes and maximize what there is to see. By carefully considering "things to be seen or not to be seen" the potential homeowner is invited to think of the site a matrix of

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35. Wright's initial innocuous tone leaves the reader unprepared for his stunning equation of bondage and urban density: "When selecting a site for your house, there is always the question of how close to the city you should be and that depends on what kind of slave you are. The best thing is to go as far out as you can get." In *The Natural House*, (New York: Horizon, 1954) 139.

appearances and the architect as an expert in opening or closing visual channels along a grid that will result in a unique pattern of visibility. This is the basis for modern understanding of the site.[36]

House

Though literally linked with the city, a country house had simultaneously to acknowledge and disavow that link. The anti-urban sentiment that motivated suburban growth in the first place required that the country house conceal the origins of the condition which gave rise to it. Maintaining cognitive distance from centers of production while incorporating the technology associated with them became therefore both a preoccupation and a delicate operation.

The conflict between technology and nature at the scale of the house can be illustrated with Neutra's Lovell House, which was often cited as the leading modernist house in American when it was built in 1929 and certainly launched Neutra's career. His Lovell House in the Hollywood Hills, completed in 1929 was a technological *tour de force*. The first all-steel frame residence in the United States, it incorporated pre-fabricated frame units including open-web joists to accommodate wires and pipes, a nearly unprecedented use of "shot" concrete, and suspended terraces stiffened by their own U-shaped geometry. The sophisticated construction, in fact, led Neutra to act as his own general contractor. Early sketches reveal his understanding of the house, which he dubbed "steel, glass and shot-concrete residence in Los Angeles."[37] This technological sophistication was most evident in the projecting terraces and in the broad bands of glass, made from standard steel casements, which encircled the entire structure. The industrial imagery culminated on the inside with automobile headlights, from Ford's Model T, that illuminated the two-story staircase leading from the entry to the sweeping living and dining space below. [Figs. 7.7-7.11, 2.9]

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36. Neutra (1951), *op.cit.*, 62.

37. Thomas Hines, *Richard Neutra and the Search for Modern Architecture*, (Oxford: Oxford University Press, 1982) 76-79.

Yet, when looking back on his long career, Neutra, echoing Montgomery Schuyler, claimed, "I resolved that the structural and technical dimensions of design must never divorce human life from nature."[38] The means of marrying life to nature--both the technologically mediated forms and systems of the house and the urban social relations that enabled a structure to turn away from the city--were consequently downplayed. When the project was published in *Architectural Record* in 1930, the various technical aspects of the house were listed, as if to demonstrate the sort of practical thinking that characterized the house in the first place. When the site was described it was in terms of adjacent Griffith Park and the house's command of "a magnificent view of the distant ocean."[39] Unmentioned were the first ten miles of view across one of America's fastest growing cities.

While concealing the technical aspects of a house's day to day functioning may be considered a cultural preference, it is more problematic when practiced by someone whom historians have continued to see as "concerned with building with unimpeachable technical correctness".[40] In the Lovell House, the only visible source of heating is the prominently placed fireplace, which was already technologically obsolete in the nineteenth century. The only direct source of lighting is the Model T headlight which serves more as a symbol of technological progress than as a revelation of the house's electrical system since it was an atypical fixture presumably custom-rewired for alternating current rather than the car battery that would originally have powered it. Indirect light washes the ceiling and walls from a continuous metal trough, the dimensions and orientation of which formally respond to the encircling band of steel casements. When Neutra praised these casements, it was less for their industrial associations than for what their thin and infrequent mullions expedited: "Through continuity of fenestration, linkage with the landscape, we should draw again on what the vitally dynamic natural scene had been for a hundred thousand

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38. Richard Neutra. *Nature Near. Late essays of Richard Neutra*, William Marlin, ed. (Santa Barbara: Capra, 1989) 29.

39. "The Demonstration Health-House, Los Angeles" *Architectural Record* 67:5 (May 1930) 433-39.

40. Leonardo Benevolo noted that Neutra's buildings were frequently located in "sensational settings" but they made "no naturalistic concessions to their surroundings." In *History of Modern Architecture* [1960] (Cambridge, MA: MIT Press, 1977) 639-643.

years, and make it once more a human habitat. It was indeed a splendid vista and landscape that permeated inward when the continuous but dividable drapes were slid aside."[41] Neutra's dramatic tone and ascription of agency to the landscape set the stage for a view that was about to act. The house, for all its technical gestures and articulations, was better suited for watching nature.

For Neutra nature was now kinder so that the archetypal distinction between inside and outside no longer needed to be taken so seriously. In a series of lectures that followed the house's completion, Neutra argued that technology had effectively declawed nature: "The old idea of shelter was based on a fear of nature, continued Mr. Neutra . . . In other words, we are actually able to reclaim nature, through our technical knowledge. For this reason the house of the future will let us see the outdoors, sleep on enclosed porches, live on balconies . . ." A house had merely to open up to the new nature; this was for Neutra the achievement of his Lovell House. If it expressed its considerable technological sophistication, it was in terms of minimizing that technology: "This [Lovell house] reduces building to its lowest terms and brings us back to a closer relation with nature, Mr. Neutra said."[42] Echoing himself nearly forty years later, Neutra claimed the house's motto was "RETURN TO NATURE BY TECHNICAL MEANS": "That Health House was looked at, and looked out from, through its transparent enclosure, by multitudes who came away to agree with its intimacy-relation to nature, with its DRAWING-IN hilly horizons and at the distant seas under evening clouds, instead of just spying through window-holes at these good things."[43]

Once the balance between nature and technology had been tipped in this way, even discussions of new building systems came to be justified in part by their ability to disappear. One of the most promising aspects of the "Post-Beam-Plank" construction, to name only one example, discussed by *House and Home* in June 1954 was that the system easily accommodated large sheets of glass,

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41. Richard Neutra. *Life and Shape* (New York: Appleton-Century-Crofts, 1962) 223.

42. Florence Davies, "Homes at $150 are Predicted," *The Detroit News* (1 March 1931).

43. "Senses Serve Vitality," mss. (UCLA Special Collections, Richard Neutra Collection, box 225) 18.

resulting in "a merger of indoor and outdoor spaces, which makes the indoors look much bigger than it really is". Merging indoors with outdoors meant minimizing, at least visually, the distinctions between the built and the unbuilt. The legitimacy of the construction was then its contribution to an illusion. Recognition of the role that views played in resolving the productive interplay between technology and conceptions of nature can thus revise historical opinions on prevailing modernist attitudes toward technology.[44] [Fig. 7.12]

Window-Wall

"Concealment" is meant to describe the flip side, so to speak, of a system of aesthetic preferences. It was an acknowledged practice of architects to augment the experience of nature by minimizing the presence of technology. At the level of the wall though, an emphasis on nature became itself a technical function. The wall and its windows were conceived of as a "filter." A 1948 *Architectural Forum* article on "Enclosure" summarized the new concept in this way: "Rather than a barrier, the enclosure has become a filter between two environments: the natural climate of the out-of-doors and the man-made climate of the interior." The task of this filtering enclosure was "to maintain as intimate a contact with nature as possible, excluding only undesirable phases while exploiting positive advantages to the full."[45] In this model the wall's function was to selectively transmit or obstruct exterior conditions ranging from light, heat, movement of air, even wild animals or the gazes of passersby. The wall became a place where different configurations of materials could allow, improve, or prevent transmission of various parts of the world. It was a kind of active and selective threshold for mostly radiant phenomena.

The development of frame construction late in the nineteenth century in Chicago dissolved the former identity that "bearing" and "wall" necessarily had with one another. Although a distinction between structure and enclosure had been recognized long before this, architects at this time made it central to their design thinking. As Colin Rowe put it in 1956, the "essence of their buildings

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44. "Post-Beam-Plank Construction," *House and Home* V:6 (June 1954) 98.

45. "Enclosure," *Architectural Forum* (November 1948) 135.

was an intellectual appreciation of the distinction between two systems, the regular structural steel frame and nonstructural walls." Rowe went on to note that the skeletal frame subsequently "seems to have acquired a value quite beyond itself." It had become he thought "almost certainly the most recurrent motif in contemporary architecture"; it not only stimulated architectural developments, "the frame has also *become* architecture."[46] With at least some tenets of an engineering aesthetic remaining in place, the formal and technical aspects of structure could remain undivided. In contrast, the nonstructural walls had far less renown as a system in mainstream architectural discourse; the "iconographical content" that elevated the frame failed to accrue to the enclosure. At least a part of the reason for this is that enclosure had itself split into two systems, one formal and the other technical.

The theoretical acceptance of a distinction between frame and enclosure in modern architecture triggered a number of reconceptualizations of the exterior wall. The "curtain wall," for example, an enclosure explicitly hung from the structural frame, was a frank acknowledgement that the role of the exterior wall had changed. The curtain wall was defined by the conceptual category of structure although, being nonstructural, it was not a member of that category. Often, it was felt to obscure perception of the beauty of the structure. Neutra, for one, in his report on the state of American architecture did not want to include a photograph of a steel-frame building with its curtain wall drawn.[47] In the glass tower designs of Mies van der Rohe, the curtain wall was imagined as almost not being there at all. [Fig. 3.14]

Prior distinctions of wall and window had collapsed with the exterior's new nonstructural role in frame construction: "With this construction walls become screens to keep out rain, cold, and noise. Walls also (as screens) serve as sources of light, controlled at the will of the occupant."[48]

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46. "Chicago Frame," first published in *Architectural Review* (November 1956) and reprinted in *Mathematics of the Ideal Villa* (Cambridge, MA: MIT Press, 1976) 90, 108.

47. Neutra reportedly hesitated to include an image of the completed Palmer House hotel in his 1926 *Wie Baut Amerika.* Hines, *op.cit.*

48. *Architectural Record* (January 1936) 88-9.

The term "window-wall" registered in this way a functional convergence as much as it referred to a discrete formal element more or less synonymous with an all-glass wall. Rather than being a confusion, it was proof of technical progress, according to one source "the most advanced stage" in window design history: "As a wall, it protects you from cold and moisture; as a window, it admits fresh air, sunshine and a view."[49] Both as object and rubric, the window-wall, like "enclosure" or "screen," subsumed both forms and functions that were formerly served by window or wall separately. "Now, with modern structural methods based on the use of frame construction," wrote Geoffrey Baker and Bruno Funaro, "**wall and window are but two textures of the same thin skin.**"[50]

Since it was free of structural obligations, the exterior could also be thought of as simply an enclosing plane or, as Hitchcock and Johnson put it in 1932, as a set of "plane surfaces bounding a volume." At the same time that it shed a former aesthetic obligation to represent gravity, the exterior wall was subjected to new design rules. Unburdened by the notion of weight endemic to bearing walls, "screen walls . . . are felt to exist in all directions, as in a stretched textile." This conception had distinct formal implications, largely that for architectural consistency surfaces should be "unbroken in effect." This included glass as well since "the glass of the windows is now an integral part of the enclosing screen rather than a hole in the wall as it was in masonry construction." Whatever glass had previously meant to architecture was subsumed by its modern integration with the conception of the building exterior as an enclosing surface. Even the nineteenth-century trend toward "maximal fenestration was a preparation for the development of a more general principle of modern design: that of emphasizing the surfaces whether they are opaque or transparent."[51] For Hitchcock and Johnson, its planar form was a principle that overshadowed glass's other functions and attributes.

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49. In Samuel Paul, *The Complete Book of Home Modernizing* (New York: H.S. Stuttman, 1953) 59-62,

50. *Windows in Modern Architecture* (New York: Architectural Book Publishing, 1948) 12 (Emphasis in original).

51. *The International Style* [1932] (New York: Norton, 1966) 48 , 45.

A different account of enclosure emerged when improvements in mechanical systems were emphasized rather than structure. Prior to the introduction of International Style modernism in the United States, improvements in mechanical systems, rather than structural innovations, were seen to be the decisive factor behind increasing window size in the nineteenth century by maintaining standards of comfort while Romantic yearnings for landscapes were indulged. After that point, they were seen as redefining the window altogether. Almost any discussion of the topic begins with a statement of the window's historical purposes: to provide light, air, and view. Crude technologies of enclosure, such as window shutters, filter everything: light and air are excluded along with the rain or cold.[52] Sophisticated technologies are more selective. They allow the window's three services to be addressed separately and at a finer level of resolution. Modern mechanical systems had begun to move air far more reliably than nature and at more agreeable temperatures. Electrical systems were able to generate light brighter than the sun not only at any time of day or night but more precisely as well. In this way, modern technologies could replace those former functions by performing them better or more cheaply.

Le Corbusier was quick to see this possibility and understand its implications: "Henceforth the idea of the window will be modified. Till now, the function of the window was to provide light and air and to be looked through. Of these classified functions I should retain one only, that of being looked through." Light and air could be provided for by mechanical means Le Corbusier wrote, but "*To see out of doors, to lean out,* that is henceforth all that the window need be used for."[53] The motor of this development was "exact respiration," which for Corbusier was the premise of an unrelenting logic that led from walls of fixed glass, to views that mitigated the effects of a "glass prison," to "parks and open spaces" that guaranteed those views, to the isolated towers of the Radiant City that left open the spaces between them. Mechanical ventilation was

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52. Ancient Roman *insulae*, Yi-Fu Tuan notes, may have had "large and numerous windows but they rendered little service" because shutters kept out the light along with the cold. In *Topophilia: A Study of Environmental Perception, Attitudes, and Values* (Englewood Cliffs: Prentice-Hall, 1974) 181.

53. In *The Studio Year Book on Decorative Art* (London, 1930) and cited in Max Risselada, ed., *Raumplan versus Plan Libre*, (New York: Rizzoli, 1988) 146.

for this reason the "cornerstone of the urbanization of today's cities."[54] Landscape views were thus a part of the design economy triggered by the automated movement of tempered air. Being also the motivation for larger windows since the nineteenth century, landscape views were therefore doubly determined both by nostalgic sentiment and driving progress.

Illustrated by Corbusier's work, "The Country House," an article that appeared in *Architectural Record* in 1930, argued that fixed windows supplemented with mechanical ventilation might ultimately replace such "sentimental benefits" as opening a window for a breath of fresh air: "Windows will be preserved not to be opened but to be looked through and to provide light during the day."[55] Fixed glass was especially appropriate in country settings. Only two years earlier, Lescaze had written that in the "future American country house," steel-framed windows will be "wide and comprehend the adjoining landscape, with horizontal muntins that do not obstruct the sweep of vision."[56] When Lawrence Kocher and Albert Frey addressed the subject of windows in 1931 they also began with an explanation of the role of windows in modern architecture. "The primary purpose of windows is to provide daylight and ventilation to building interiors. Windows should also permit unobstructed view of surroundings." The framing that made windows operable, which for purposes of ventilation had become optional, was an impediment to the requirement for unobstructed vision.[57]

In the following decades the point would be made more insistently: with light and air achieveable by other means, design attention regarding windows should focus on the view. "What Next for Window Walls?", an essay published by *Architectural Forum*, concluded that view had become a driving force in the design of modern buildings.

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54. Le Corbusier, *The Radiant City* [1933] (London: Faber and Faber, 1967) 40-44.

55. Howard T. Fisher, "The Country House," *Architectural Record* 68:5 (November 1930) 371.

56. William Lescaze, "The Future American Country House," *Architectural Record* 64:5 (November 1928) 420. Interestingly, Lescaze made a point that heating pipes should throughout a room be kept "in plain view."

57. Lawrence Kocher and Albert Frey, "Windows," *Architectural Record* 69:2 (February 1932) 127-32.

> Since the invention of movable sash, the window has had three functions: light, ventilation and outlook." Advances in technology, especially for large buildings but relevant to all types, "have largely eliminated the first two of these. . . . With these two functions removed, the sole remaining function of the window is outlook. It is obvious that the window should be restudied from the point of view of how much outlook we need and want.[58]

With great regularity, glass walls were validated in this model by what was considered their singular contribution to home life, the view. In *Inside Today's Home*, published in 1954, author Ray Faulkner noted that modern windows perform three primary functions: "ventilation, light and views," but, he continued, "of these only the last is unique". Ventilation was more convenient when handled mechanically and lighting would be more precise when controlled electrically. Faulkner thought that using windows as a source of light was actually rather expensive compared with the low costs of wiring and electric service. Windows were unsurpassed though, in fact unchallenged, at providing views: their "unique contribution to good living is visual relationship between one part of our living space and another. Usually, but not necessarily, this is between the indoors and the outdoors."[59] Aimed at a mass audience and reprinted many times through the 1970's, Faulkner's analysis may be taken as a representative position. The logic of a mechanical replacement of window functions could be extended even further. Bruno Funaro, who had earlier co-authored a history of the use of glass in modern architecture, wrote in 1957 that "modern technology has replaced with more reliable means many of the services which were performed by windows and which were their reason for being." He suggested, supposedly in jest, that even the task of providing views could itself be replaced mechanically by the "TV window."[60]

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58. *Architectural Forum*. George Nelson and Henry Wright suggested that one of the benefits of mechanical ventilation was a better and broader view: "If the ventilating function could be handled separately, windows could provide much more light and vastly wider views." Mechanical trades had their visual benefits. In Nelson and Wright, "Ideas for Houses," *Life* 19:23 (December 3, 1945) 118.

59. Ray Faulkner, *Inside Today's Home* (New York: Henry Holt, 1954) 315.

60. In "Windows in Modern Architecture," *Windows and Glass in the Exterior of Buildings* (Washington, D.C.: National Research Council, 1957) 63-6.

If Josep Lluis Sert could so handily encapsulate the argument in 1962 it was because by then it was a truism:

> The windows of the past had a triple function - to see, to light, and to ventilate. Today, we can dissociate these functions. A picture window can just be an opening to the landscape, appropriately scaled to the space inside and to the view outside. Light-diffuser windows . . . can just filter and diffuse light. . . . From glass to light diffusers to ventilators to opaque enclosures, we have a range and liberty of choice and possible combinations that is practically unlimited.[61]

Serving air, light, and view with great precision seemed so unconstrained and so readily addressed, it was difficult to perceive the technical knowledge and design skill once presumed to be behind window design. Indeed, as Tuan put it, "We forget how glass panes have so greatly extended our control over the world by allowing us to see it in comfort."[62]

To be sure, windows were addressed in terms of the technical problems they presented, which could be quite significant. However, troubles with overexposure of fabrics and furniture to sunlight, unwanted heat gain, glare, infiltration, and condensation did not dampen enthusiasm for large windows. While these concerns were acknowledged, reducing the size of the window was rarely if ever an option. Instead, various technical fixes were proposed and, always, to be taken seriously, they had to preserve the view. When, for instance, Breuer advocated the use of sunshades and solar glass to offset heat gain, he was sure to stress that they "reduce sun radiation without limiting the view of the landscape."[63] [Figs. 7.13-7.14] Emphasizing the sense of nature did not necessarily require less artifice, it required minimizing the perception of artifice.

With technical changes of both mechanical and structural origins behind its redefinition, glass walls acquired an objective aura, appearing more as engineering inventions than as part of a

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61. José Luis Sert, "Changing Views on the Urban Environment" *RIBA Journal*, 70:5 (May 1963) 190.

62. Tuan, *op.cit.*, 181. Much of this discussion extends past national borders, see for example, Paul Artaria on "Fenster" in *Vom Bauen und Wohnen* [3rd edition] (Basel, Wepf and Co., 1948) p.12-15.

63. In Blake, *op.cit.*, 119.

design aesthetic. *Architectural Forum*'s 1936 statement--"The great area of glass acts neither as wall nor window, but merely as physical agent for the control of inside temperatures"--already made glass walls sound more like a tool than an agenda.[64] In this sense, window-walls could belong to a category beyond style. When asked "What is Modern Architecture?" West Coast architect John Ekin Dinwiddie said that he tried to avoid questions of style by focusing on process; he concentrated on the question of "How?" rather than "What?": "With this approach, a window becomes neither modern nor traditional, but simply a means of admitting light, air, sunshine, or view" and the window's form "should be determined almost entirely from the consideration of these factors." At the same time though he notes that improvements in mechanical systems make the architect "free to do anything the mind can conceive."[65]

Although the light-air-view formula was repeated to the point of monotony, it had important implications for modern design. In recognition of the window's new and ecumenical capacities, architect Richard M. Bennett proposed in 1942 to revamp its conceptual categories altogether: "Our idea is based on the belief that a window should be conceived as something more than a type of operation--double-hung, casement, etc. It might better be thought of as a filter, taking the place of the solid wall and controlling light, heat, air and vision, repelling insects and unwanted visitors"[66] As a multi-functional filter, the window might replace the wall altogether, making obsolete, or at least temporary, qualities such as opacity. He called this invention the "All Purpose Window," reflecting a new understanding of the window as a configuration of materials with differential transmissive properties. Altering the placement of one component of the system alters the transmission profile of the whole assembly. Visual privacy could be turned off and on as one's mood or exterior conditions dictated. There was no reason not to have a continuous wall of glass. [Fig. 7.15]

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64. The statement described a "City House" designed by Ernest Born and a garden designed by Thomas Church. Architectural Forum, *The 1936 Book of Small Houses* (New York: Simon & Schuster, 1936) 161.

65. "Tell Me, What is Modern Architecture?" *House and Garden* (April 1940) 46-47.

66. Richard M. Bennett, "All Purpose Window," *Architectural Forum* (September 1942) 96.

Since a wall of glass could always be made opaque through the use of shades, while an opaque wall could not easily be made transparent, glass walls were claimed to possess a greater performative range.[67] A large window could be large or small. Besides removing those factors that might adversely affect physical comfort, a glass enclosure could filter what in this interpretation might be considered aesthetic impurities. Architects could obtain thereby a degree of "psychological control" by specifying tinted glass. Pinks worked well to warm up a "bleak, northerly outlook" while a blue cast "would cool off a hot, arid view." Of course, only completely colorless plate glass would do "if a completely faithful view is mandatory"[68] This new understanding of the window also prompted a revised history of windows, which *Architectural Review* supplied in 1950. Their article "Window Into Wall" began: "The evolution of the window has often been studied from the point of view of architectural style . . . In this article it is studied simply as a mechanism for letting in light and air and displaying the view."[69]

Perhaps though the true culmination of the conception of the enclosure as a filter was the "environment bubble" of Reyner Banham's "Power-Membrane House." [Fig. 7.16] This "sheltering membrane" would hover overhead "radiating heat, light, and whatnot downward and leaving the whole perimeter wide open for random egress . . . That crazy modern movement dream of the interpenetration of indoors and outdoors could become real at last by abolishing the doors." The former transmissive functions of the window and the environmental opacity of the wall were embodied in one great climate engine. It would in effect be an "unhouse" permanently open to views of the outdoors while scrupulously and mechanically excluding "dirty old Nature." Banham thought only Philip Johnson's Glass House approached this ideal, with its interior "dominated by the absence of visual enclosure all around." Despite its novelty, Banham believed the power-membrane house would serve an old and, he felt, very American program: life in "the

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67. Funaro and Baker, 1948, 15.

68. Baker and Funaro, *op.cit.*, 124.

69. D. Dex Harrison, "Window Into Wall," *Architectural Review* 108:644 (August 1950) p.113.

great outdoors."[70] The conceptual form of the house, though--a nearly invisible enclosure filtering out of its own accord the unwanted parts of nature--was of more recent vintage.

Common to all of these reformulations of domestic enclosure was both a mechanism and a landscape. Once installed and properly oriented, the autonomously functioning enclosure adjusted itself to outdoor conditions, all the while making sure that the integrity of the view would not be violated. With enclosure a filter or mere physical agent, however, the enclosed was no longer necessarily a space of human proportion and mortal scale; in a memorable phrase of Cranston Jones regarding Neutra's Kaufmann House of 1946, "the house, as such, becomes merely controlled environment caught behind glass between floor and roof."[71] [Fig. 7.17] For its part, the view was assumed to be always available. In nearly all discussions, the landscape outside was taken for granted in the same way that a picture was assumed to be part of a picture window. Indeed, the picture window itself was seen as a kind of filter "which brings in the nice part of Nature and excludes the other."[72] Both picture window and filtering enclosure had as their premise an architectural element and as their conclusion a landscape. This was of course not always the case, but it was invariably the ideal.

In this sense, the landscape was a conjecture of the mechanism. The filtering enclosure was a technical correlate of the idea of framing. The view was no longer the result of the conscious aesthetic operation of framing elements of landscape. It resulted instead from the assembly of materials based on the differential transmission of energies, like heat and light, through matter,

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70. "A Home is Not A House," *Art in America* (April 1965) 109-18 and reprinted in Charles Jencks and George Baird, eds. *Meaning in Architecture* 1969. Earlier, Moholy-Nagy suggested that if Mies's glass skyscraper model "should one day be realized the transparent structure would appear as a gigantic soap bubble," perhaps like a large Banham-like bubble. In *vision in motion* (Chicago: Paul Theobald, 1947) 103.

71. Said in regard to Neutra's Kaufmann house. Cranston Jones, *Architecture Today and Tomorrow* (New York: McGraw-Hill, 1961) 90. Jones begins with the statement: "The distinction between interior and exterior has been all but abolished by the use of glass."

72. Part of the picture window's ability to convey or deny nature was due to its use of the Thermopane-brand technology of double glazing. The "nice part of Nature" was the view while "the other" part was everything else. Edwin Bateman Morris, "How to View the Out-of-Doors," *AIA Journal* (February 1953) 63.

like brick or glass. A good view appeared when the enclosure was functioning properly. In a manner of speaking, the aestheticization of landscape had been mechanized. Filtering thereby replaced framing as the means of selecting those aspects of the manifold to be included or excluded in the transmission profile. Where window and wall had in the past been the subject of concentrated aesthetic attention from both inside and out, enclosure, its functional accent conspicuous, was in contrast drained of artistic potential. This accounts to some degree for a modernist design paradigm often reluctant to address directly, at least in theory, composition of the enclosure.

In Hitchcock and Johnson's openly formalist model of enclosure, opaque and transparent were two visual modes of a surface, two-dimensional correlates of solid and void, a conception that lent itself to a compositional understanding of architecture. With the filter conception of the wall, opaque and transparent are finely-resolved polar modes of activity, a binary option for transmission, on which not compositional but environmental distinctions could be made. In this model the aesthetic operations that were explicit with Hitchcock and Johnson were embodied in the material properties of a system. Rather than being the outermost surface of a volume on which would be laid a pattern of transparent and opaque panels, the wall-as-filter was a plane between two environments: one highly controlled and the other unpredictable, often inhospitable, but almost always pleasant to look upon. Whatever "beauty" there was would more likely be found in the view outside than on the wall. Aesthetic interest in this model was focused more on the filtrate than the filter.

The filtering enclosure thus presumed and required a view, otherwise an old-fashioned opaque wall would have done just as well. Once installed however, it seemed to produce the view, an interiorized image of nature. It in effect filtered the outdoors until it felt like the indoors but still looked like the outdoors. By preparing the outside for its appearance inside, the enclosure domesticated the out-of-doors, in the etymological sense of the term. It gave to nature a behavior appropriate to the smallest circle of civilization, the *domus*.

Equipment

> Fully apprehending the outside from within, yet feeling neither cold nor wind nor moisture, is a modern sensation.
>
> Richard Sennett, 1990 [73]

In his essay on "Plate Glass" Richard Sennett describes with a note of melancholy the "division of the physical senses" consequent to the increasing use of glass in architecture during the nineteenth century. Far from being an unhappy and unforeseen consequence of glass though, the ability to precisely manipulate sensory stimulation was explicitly understood as a major achievement of modern architecture if not modern technology altogether. Division of the senses was a direct result of the development of devices that addressed narrower and narrower ranges of physical phenomena. A fire, for example, may provide light and heat for comfort and cooking. Domestic heating systems, though often powered by nothing more than a fire, serve only comfort and in a more controlled manner. The degree to which the separation of the senses underpinned house design and design values in general was nowhere more vividly demonstrated in the 1950's than in discussions of products for the modern house. Modern equipment was often rhapsodized and enthusiastically incorporated in a range of designs for kitchens, bathrooms, basements, and houses. Manufacturers were not shy about the benefits their products would confer. Typically though, these products were not a great visual presence, even in their own advertisements.

In keeping with the landscape themes espoused in 1950's journals, many products for the home were presented in the context of a natural setting. Firth Broadloom, for instance, thought their earth-toned wall-to-wall carpets could, like a glass wall, also "bring the outdoors indoors" and illustrated this belief with a family picnic on a carpeted meadow.[74] But advertisements for mechanical equipment in particular often followed a strategy of separating out the somatic from the visual benefits of its products. The somatic benefit of Crane Heating's furnace was comfort in a range of climatic conditions, from hot summer to cold winter. [Fig. 7.18-7.19] The visual

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73. "Plate Glass," in *Raritan Reading*, Richard Poirier, ed. (New Brunswick, NJ: Rutgers University Press, 1990) 352.

74. In *Better Homes and Gardens* (March 1953) 142.

benefit was a view of nature. Text related the somatic benefits while a picture of a free-standing view made the visual benefit vivid. The two are of course related, the physical comfort provided by mechanical specialties was represented, if not exactly experienced as a picture of nature.[75] This occurred in part, as Sennett suggests, by the separation of the senses, which may be attributed to the fact that finer and finer segments of radiant and mobile phenomena may be filtered out of the experiential profile. But what has been called the pictorialization of nature is in particular the result of filtering out nonvisual aspects of natural phenomena. Through a glass wall, cold and wind, for example, are present, but only in visual terms: visible signs like snow, bare trees, uncommonly clear skies, or the movement of leaves or ruffled grass. The view through the glass wall bears characteristics, then, of "the view," an entire genre of picture-making.[76] Instead of being, for example, the result of paint applied to canvas, the landscape view of architecture was produced by walls of glass and mechanisms of thermal comfort.

To the extent that such an understanding turns up in a range of periodicals, it may be an artifact of commercial reproduction technologies employed by most major publications. The capacity for large color images seems to some extent to demand them. But the content of the image does not follow from the capacity to make it. In fact, photographic printing processes improved only gradually with "no really revolutionary changes" from 1930 to 1950.[77] Advertising strategy, on the other hand, did shift. In the 1930's, manufacturers often visually presented technical issues in building specialty products by the use of cross-sections or pictures of purring motors. Somatic comfort was less of an issue than was mechanical reliability. This was true in trade publications as well as in popular journals. But the popular journals also reassured homemakers in the 1930's and earlier that the design and styling of products would fit with contemporary tendencies in interior decor.

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75. In *Better Homes and Gardens* (1953).

76. See *Nature Pictorialized: 'The View' in Landscape History* by Gina Crandell (Baltimore: Johns Hopkins University Press, 1993).

77. James Moran, ed. *Printing in the 20th Century*, (London: Northwood, 1974) 135, 175. See also, chapters 9 and 10 of Warren Chappell's *A Short History of the Printed Word*, (Boston: Nonpareil).

In the 1950's, technological innovation was important but less likely to be pictured. Invisibility was at times an explicit advantage stressed by manufacturers. An unseen boiler was equated with a wall of glass, a view, and modernity by one manufacturer; the Bell Telephone System suggested architects "Plan a 'disappearing act' for telephone wires" by hiding them within walls or above ceilings; a special issue of *Architectural Record* reported experiments that replaced window insect screening with invisible "periodical applications of insect repelling spray around the house" that would add nothing to the feeling of enclosure.[78] Before it even began to discuss the technical merits of its glazing system, Curtis Woodwork had first to make a point that was by then increasingly overlooked: "there's more to a view than meets the eye."[79] [Figs. 7.20-7.22] In an advertisement for Uskon radiant heat, a swirling snowstorm appeared behind the picture window enlivening an evening party. The copy read: "No furnace, no pipes, no fuel storage. No ashes, dirt or dust. No radiators. Uskon is 'invisible.'" The product was promoted for its ability to disappear. Nature's inhospitability became a party ornament and was gauged, if at all, in terms of a seasonal expense for heating. The effect of immediacy was heightened with the removal of the mediating mechanisms. Uskon proposed an apparently unmediated relation to the outside by emphasizing the invisibility of the technology the dweller was so intimate with, so dependent on, and yet remained for that user largely alien and incomprehensible. It counted precisely on the separation of senses noted by Sennett. More to the point, it relied on the naturalization of the separation that, far from being lamented, was the key to a new way of dwelling.

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78. "From its wall of glass, framing a view to the South, *to the Bryant Boiler that activates its unseen radiant coils*, it is as modern as tomorrow" and located in architect Robert Vahlberg's "DREAM HOUSE" in Oklahoma City. In Bryant Automatic Heating of Affiliated Gas Equipment, Inc. Cleveland, advertisement, *Architectural Forum* (March 1949) 55; Bell Telephone System, advertisement, *National Real Estate and Building Journal* 52:1 (January 1951) n.p.; "Lawrence Kocher, "The New House for Family Living," *Architectural Record* 119:6 (Mid-May 1956) 101.

79. Curtis Woodwork advertisement, *Architectural Forum* 95:4 (October 1951) 62.

Nature Mystified

> The bourgeois class has precisely built its power on technical, scientific progress, on an unlimited transformation of nature: bourgeois ideology yields in return an unchangeable nature.
>
> Roland Barthes, 1957[80]

> False clarity is only another name for myth; and myth has always been obscure and enlightening at one and the same time: always using the devices of familiarity and straightforward dismissal to avoid the labor of conceptualization.
>
> Thedor Adorno and Max Horkheimer, 1944 [81]

> When you wander about in Arcadia you ask as few questions as possible. That *is* Arcadia in fact.
>
> Henry James, 1907[82]

The credo of the view relied on the transparency of the technological means. To some extent, this is consistent with the way many technological artifacts work. In his philosophy of technology, Albert Borgmann distinguishes the "commodity" of technology, that is, the benefit it confers, from the "device" or machinery that produces that benefit. By way of illustration, he takes the case of television. Most viewers are blissfully ignorant of the electronic insides and the technologies of transmission, not to mention the workings of the various industries producing programming. TV is valued for the picture it presents and not at all for how that picture got there. Borgmann names this condition the "device paradigm": "What distinguishes a device is its sharp internal division into a machinery and a commodity procured by that machinery."[83] The technological means are totally subordinate to the achievement of an effect, product or service. Borgmann suggests at one point that this division is related to consumer society, specifically "the consumption of those central commodities which constitute the foremost and final aspect of technology."[84] From the

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80. Roland Barthes, History into Nature," *Mythologies* [1957] (New York: Noonday Press, 1972) 141-42.

81. In *Dialectic of Enlightenment* [1944] (New York: Continuum) xiv.

82. In *The American Scene* [1907] (New York: Scribner's, 1946) 13. Said in respect to New England.

83. Albert Borgmann. *Technology and the Character of Contemporary Life. A Philosophical Inquiry*, (Chicago: University of Chicago Press, 1984) 33.

84. *Ibid.*, 125.

beneficiary's, or consumer's point of view, how something gets done is uninteresting. If anything, Borgmann notes that, to the seemingly "commodious" delivery of such benefits, "there corresponds an extreme concealment or abstractness in the mode of its production."[85] Progress in technology may be measured by its disappearance, or, in terms familiar in architectural history, by its dematerialization. As a result, advancing technology leaves in its wake a widening gap between diminished means and amplified ends. As Borgmann puts it, "The peculiar presence of the end of the device is made possible by means of the device and its concealment."[86] For the average citizen, the device paradigm entails a kind of magic in the tenuous and obscure connection between means and ends. Moreover, it corresponds with a perceived split between the marketplace, where labor is exchanged for the means of living, and the home, the realm of leisure where the benefits of labor are enjoyed.[87]

A bit of magic, or mystification, is not unknown in the history of domestic architecture. In his history of aesthetics Paul Shepard described the Roman villa as a careful "admixture of the planned and unplanned": "The walls of the house were concealed by plantings to blend house to countryside. It was located with a view. Though it had elegant formal components the whole was 'an imitation of the negligent beauties of rural nature.'" Millennia later, picturesque landscape 'improvers' became famous for their efforts at concealing an estate's actual boundaries so that it might appear to extend indefinitely.[88] Making nature appear even more natural than it could on its own was another measure of design success: with a "commanding prospect" the

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85. *Ibid.*, 4.

86. *Ibid.*, 48.

87. *Ibid.*, 136.

88. *Man in the Landscape. A Historic View of the Esthetics of Nature*, (New York: Knopf, 1967) 68, 86. Approvingly, Shepard quotes Alexander Pope: "He gains all ends, who pleasingly confounds,/ Surprises, varies, and conceals the bounds."

world viewed from one's window could appear "a triumph of 'unspoiled' nature: this is the achievement: an effective and still imposing mystification."[89]

The biggest surprise, to repeat an earlier point, is to find a continued interest in concealment and mystification in an architecture founded, at least in part, on efforts to make making manifest. The view is paradigmatic in this regard. The more unframed it appears, that is in this discussion, the more invisible the sources of somatic comfort attending the visual extension of space, the more convincing an illusion it becomes. This may, as discussed, be endemic to technological devices. Opening his brief reproach of the picture window, historian Daniel Boorstin asserts, "We are deceived and obstructed by the very machines we make to enlarge our vision."[90] It may also be something specific to the very act of viewing landscapes. Regarding, for instance, photographic documentation of landscape in nineteenth-century America, Rosalind Krauss fairly defines the genre in terms of this unmediated appearance: "*view* addresses a notion of authorship in which the natural phenomenon, the point of interest, rises up to confront the viewer, seemingly without the mediation of an individual recorder or artist."[91] The landscape appears self-organized when the framing apparatus is disregarded.

This dynamic was active in architectural constructions of landscape views and, from time to time, fairly explicit. Few were as candid as Robert Woods Kennedy when he said that in architecture as in magic itself "the absolute secrecy of the trick is the essence." Nevertheless, underneath the call for a more human side to architecture's technological obsessions was a tolerance for effects that did not attempt to awaken clients' understanding of how technology works. If anything, knowledge of the mechanical causes or of what lay beyond the frame was usually seen as inimical to surprise and delight, or at least, opposite in character to aesthetic understanding. Enhanced

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89. Raymond Williams, *The Country and the* City (1973) 125. Mystification was often explicit as a goal in the eighteenth century. See, for example, John Dixon Hunt and Peter Willis, eds., *The Genius of the Place* (Cambridge, MA: MIT Press, 1988) 359-60.

90. In *The Image. A Guide to Pseudo-Events in America* [1961] (New York: Atheneum, 1982) 259.

91. In "Photography's Discursive Spaces," *The Originality of the Avant-Garde and Other Modernist Myths* (Cambridge, MA: MIT Press, 1985) 140.

aesthetic character was for many architects the psychological advantage of concealment. Perhaps by overstating the case, Kennedy clarified this polarity: "In architecture, the architect who leaves us mystified, who excites us with an invisible technique, is the most rewarding. To allow one's slip to show, be it silk, steel, or Freudian is, because it spoils the show, the unforgivable, unprofessional, inartistic sin."[92] Creating an impression of deep space on a 100' lot was one of the more valued acts of contemporary wizardry.

It is important to draw attention to the fact that for many architects views through glass walls were precisely the opposite of mystification. Glass walls revealed modern technology. William Wurster, for one, pointed out that "the use of glass in large areas" was predicated on efficient and economical heating systems. Prior to their development, expanses of glass were not feasible. In 1940 however, the modern furnace had made them practicable while improvements in manufacturing had made them cheap. The "honest approach" to technology in the home required therefore the use of lots of glass, which was in turn the key to so many effects of architectural modernism.[93]

Thus, it seems fair to count as mystifying only those cases that insist explicitly on the view as an unmediated relation with nature rather than simply something nice to see from the living room sofa. Again, there is no shortage of examples. Neutra's aspiration to provide a splendid vista that would "draw again on what the vitally dynamic natural scene had been for a hundred thousand years" appears easily to reach this threshold. His description accords with Adorno and Horkheimer's nearly contemporary exposition of mystification as the attempt to render current practices in terms of "mythic process," that is, to make "the new appear as the predetermined, which is accordingly the old." Specifically, rendering more complex modes of existence or ways of thinking in pictorial terms flattens them, or, as they put it, "appropriates and perpetuates

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92. In *The House and the Art of its Design* (New York: Reinhold, 1953) 527.

93. In "Tell Me, What is Modern Architecture?" *House and Garden* (April 1940), 46.

existence as a schema."[94] In Borgmann's terms, the commodity that technology delivers has a "surface character" that results from the indifference to means. He notes also that this is a marked characteristic of advertising, which often makes reference to an unquestionable ground of expertise.[95]

The occasional protest seems to confirm the interpretation that pictorial thinking toward nature was widespread. In a survey of the work of architect Cliff May, editors at *Sunset* magazine stressed his insistence on maintaining direct and easy contact with the outdoors. Operable glass walls, or sliders made all the difference between an outdoors that was planned for "living" and one that was good only for "viewing." With the possibility of moving into the view, the "garden seems part of the room, not just a picture to look at."[96] Cliff May did insist on what he called "ground contact," that is, the necessity of being on the earth, not above it, and within easy access of the outside. "Ground contact" also helps differentiate the view from the wildly popular contemporary idea of "indoor-outdoor living," which was certainly related to the view. Indoor-outdoor living stressed the adjacency of indoor convenience with outdoor spaciousness. Focus was on a set of activities carried on indoors or out that, taken together, distinguished a particular lifestyle. May, in fact, often defined his designs in terms of lifestyle: "So back again to the ranch house, it's an informal way of living out of doors."[97] Without necessarily lecturing clients on the physics of suburban infrastructure, some architects stressed the need to have a landscape view but insisted it was only the first step for a modern dwelling. William Wurster, for one, began his article, "The Outdoors in Residential Design," axiomatically: "Here is a very specific and concrete

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94. Horkheimer and Adorno, *op cit.*, 27-28.

95. Borgmann, *op. cit.*, 53.

96. Sunset Magazine, *Western Ranch Houses by Cliff May* (Menlo Park, California: Lane Publishing Co., 1958) pp. 28-33.

97. Cliff May, *The California Ranch House*, Interviewed by Marlene Laskey. (Los Angeles: UCLA Oral History Program, 1984) 111, 192. Ground contact was also an important basis on which Philip Johnsons's Glass House was distinguished from its prototype in Mies' Farnsworth House. Hitchcock wrote that the its four doors "allow free egress" to the outside and thereby extend the living area "in the habitual American way" and in distinction to Mies's design. In "Philip Johnson," *Architectural Review* 117:700 (April 1955) 238.

proposal: that private outdoor space, with a large glass area overlooking it, be considered a minimum standard for modern homes, whether single dwellings, row houses, flats or tall apartments."[98] All other standards that might be imagined were secondary. Wurster was quite careful, though, to state that he meant "controlled out-of-door space," that is, private and usable space. Seeing that space from the inside was still important but not more so than being in it. To take only one other example, Harwell Hamilton Harris designed a house in a stunning setting: "Nature in this spot is prodigal; from no two stands do you have the same kind of view." With the allure of nature so strong Harris had to plan carefully to prevent a shift "in the center of interest from within the house to outside. . . . In every case the viewer is deliberately made to go to the view rather than having it thrust on him," as was so often the case.[99]

Defining relations with the outdoors solely in terms of view leaves out discussions of easy movement from inside to out, as well as a range of sensory stimuli. A view could in this sense be perceived as confining. Architect E. B. Flowers reported that one of his clients railed against such restrictions. The client had noted that: "Several contemporary houses I've been in seem to me to be occupied by people who have a quite spurious sense of being associated with 'nature' because they live behind glass walls in stead of brick or wooden ones!" Looking at it through glass walls made of nature a stage set, as Robert Welch would have readily acknowledged.[100] Since his house would be in the countryside, this client would "spend quantities of time in the open. For I don't happen to be one of those for whom the country is 'scenery'." And, he continued, he rather enjoyed the "significant contrast" of multi-sensory stimulation outdoors with a more subdued interior, or, as he wrote to Flowers, "the gaze that has been widened to all earth and sky now deepened to the immediate, the intimate . . . I don't want the out-of-doors to intrude upon the indoors." The emphasis on views had simply gotten out-of-hand. It was a fantasy of those who

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98. William Wurster, "The Outdoors in Residential Design," *Architectural Forum* (September 1949).

99. In *Architectural Forum* (October 1951) p.

100. Walter Benjamin had noted a theatrical inclination in the bourgeois interior in the nineteenth century: "For the private individual the private environment represents the universe. . . . His drawing room is a box in the world theater." He might, though, have been surprised this would develop so literally. In *Reflections* (New York: Schocken, 1978) 154.

didn't know any better. Regarding his study, for example, he went on: "It should not be decked out with a fine, inspiring view! I've seldom met a non-writer who didn't suppose that writers love to sit looking out grandly upon vistas galore."[101] To write, one needed to look inward, he thought, not out.

Such protests, though, were not the norm and reveal the degree to which pictorial conceptions of nature were much more commonplace. Responses gathered by *California Arts & Architecture* from Neutra's "enthusiastic clients" were much more typical. Mr. and Mrs. Barsha were aware of the general resistance to glass walls, in 1937, but they rejoiced in theirs: "The larger areas of glass which so many people deride give us constantly changing views of the landscape. They make each room seem to project itself into the landscape and we get a feeling of living in the open without having to suffer any of the discomforts. They make every room cheerful despite the weather." Harry Koblick, who, the magazine noted, "has the soul of an artist," delighted in the pictorializing process: "Silverlake is an ever changing picture which your windows frame to perfection."[102] [Figs. 7.23-7.24] Even E. B. Flowers's robust dissenter, after some reflection on the matter, added to his programmatic statement: "On the other hand, to go to sleep and wake up with the out-of-doors well at hand is, I think, wholly to be desired; so I'd like my bed bang against glass"[103] To recognize that a view was but "one indication of our relation to surroundings" required special concentration: "The 'view of outside' is much more than a photograph out the window. ... The 'view of outside' includes the taste of the air, the level of sound, recollections of other places and people, and knowledge of the town structure."[104] More often than not, though, the view of outside, just like a photograph, excluded exactly these things.

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101. In Kennedy, *op cit.*, 344-47.

102. In "And What the Owners Say," *California Arts & Architecture* (July 1938) 40.

103. Kennedy, *op cit.* 347.

104. In *Landscape* (Autumn 1962) 35.

In architectural discussions then, nature was schematized as a place beyond the tightening grip of artifice and mechanization. More than anything else, nature was cast as continuous. Indoors extended into the outdoors with barely a pause at the glass wall; outdoors entered the indoors just as freely. Nature did not come in bits anymore, as the naturalist's specimen trays and home terraria of the nineteenth century would have us believe. By removing impurities, the filter conception of the wall did not alter nature so much as reveal an essence that had been present from the start. Modern nature bid the house share not only its greenery and formal variety but its continuity as well. Since nature without end is the ultimate figure of the everlasting, union with its deep space represented an orientation toward infinity rather than toward indeterminate historical processes.[105] In this way a view signified a visual and immediate connection to some order vastly larger than one's own lot. Finding for the house a hint of permanance in the landscape view was another means of temporally registering the same sense of unremitting flow. Anything that might place the sense of nature beyond the ability to measure it was called upon to contribute to this effect. Measurement in this sense distinguished the human from the man-made realm. As George Perkins Marsh, a forebear of twentieth-century environmentalism, said: "Nature has no units of measurement herself. Only man has units of measurement."[106] Refusing to measure something was to begin drawing a line between ourselves and something called nature.

The irony was that this discourse came at a time when nature was increasingly measured, disaggregated, and repackaged, mostly for commercial profit. It had perhaps never looked so breakable. Additionally, since views were the goal of technological means, they were often rendered not as particular landscapes but were rather generalized, as a mass-produced kind of decoration. The view of nature and the nature of the view were degraded. By requiring a corresponding concealment of means, the view contributed nothing to knowledge about the intersections of man and nature. More likely, it obscured such knowledge. As Adorno, Horkheimer, and James might have agreed, it represented a certain freedom from the labors of

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105. See, for example, Guy Debord, *Society of the Spectacle* (1983), paragraph 177.

106. George Perkins Marsh. *Man and Nature* (New York: Scribner's, 1864) 111.

conceptualization. To the extent that the selection of exterior phenomena for re-presentation within the home can be delegated to the properties of an autonomous system or unseen processes, it becomes less an aesthetic option than an axiom, acquiring along the way some of the functions of ideology. The more the formula is repeated without criticism, the more it is taken as a simple truth. The view was in this way an ideology embodied in form, material assembly, and discourse. By draining so much from the realm of nature it collapsed also the depths of human subjectivity. And it worked well enough that its excess of internal contradictions went mostly unnoticed.

None of which, if true, explains why the desire for private landscape views remained so popular for so long throughout professional and popular media. It is valid to ask what purpose was served by that tiny Arcadia in the window, rather than to dismiss the phenomenon as just so much "false consciousness." The Arcadia enacted by the glass wall and attending view was a world unhurt by advancing technology. Being domesticated, it was also a world that wouldn't hurt the user of technology, that is, the viewer, which explains to some extent the passions raised by threats to privacy: gazes returned from the landscape destroyed the illusion of a world forever spacious. Its therapeutic and compensatory tasks were entirely dependent on a willing deception, as is so evident in the frank illusionism attending the discourse of spaciousness. In some way, the view satisfied what might be called an "Eden complex," a desire to overcome originary alienation and reunite with a world that is in some way unblemished. The desire for a mystery of the site, as Neutra might have put it, *was* a reality. The *domus* was a necessity when so much of the world was beyond human control. The dream articulated by the view was that the world itself had been domesticated. With nature house-broken, the rationale for shelter had been nullified, with the curious result that next-to-nothing, "the absence of visual enclosure" as Banham put it, might make a home.

In various ways, the technology of site, house, wall, and equipment purified or refined nature. In turn, the technology laced throughout every square inch of the modern house was validated, in a sense purified of its more suspect origins. A new view of nature was available not merely because the modern, geometric house was juxtaposed with the natural landscape. It was also because

technological prowess was capable of "delivering" nature in a convenient form. The formal resolution of technical and symbolic spaces inside the home allowed the house to function as a frame for seeing nature while the literal concealment of technology contributed to a phenomenology of nature commensurate with modern life.

Chapter 8: Cultivated Vistas

> Not every house can enjoy the perfect setting . . . but when such an opportunity does come along it is one of the virtues of modern design that it is capable of exploiting it to the maximum. And on the ordinary suburban lot, where nature does not provide the view, it is possible to manufacture it.
>
> George Nelson and Henry Wright, 1945[1]

While a spreading landscape beyond one's windows was a valued site asset, it was widely observed that many, if not most sites offered little in the way of a view. Many of the millions of new suburban houses developed in the years following World War II were in subdivisions, often on flat land, and usually not far away from a neighboring house. Architectural periodicals, on the other hand, typically featured more remote sites or lakefront or cliffside properties, with views earning adjectives like "breathtaking." The conflict created by high-end architectural values and suburban realities was explicitly recognized as such at the time, particularly by more popularly oriented periodicals:

> One of the commandments of contemporary architecture is that the house must be opened up with big window walls and the outdoors brought indoors. If the house sits on abundant acres this is charming, but when it is built on a small lot it is likely that flapping laundry, garbage cans and carports are the delights of nature brought into the living room.[2]

One response to such a conflict would be frankly to acknowledge the site's limitations and forego a set of architectural values requiring possession of "abundant acres," seeking instead a more modest, more feasible set of interests. And, in fact, from time to time some forthright designer would decide to denounce "the bluff of sham spaciousness."[3]

For the most part, though, relinquishing one's desire for a view was not the action urged by the very critics who recognized the conflict. Advocacy of the view actually reached its highest pitch when sites were most restricted. A view was needed most when it was most unlikely. Architects

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1. George Nelson and Henry Wright, *Tomorrow's House* (New York: Simon & Schuster, 1945) 153.

2. "Big Outdoors on a 100-foot Lot," *Life* 37:20 (15 November 1954).

3. Richard Pratt's term in "When you Plan Your Garden," *House and Garden* (October 1922) 54.

themselves reached innovative heights in their attempts to overcome this condition, to shoehorn an impression of abundant acres on to a rather small lot. They described ways to enhance constrained views, to reproduce and reflect views on to nearly every wall in every room of the modern house, and to provide visual analogues--to induce in the mind thoughts of views--when they were absent altogether. As fundamental architectural elements like walls were being redefined as windows, other parts of the home were also functionally and formally reorganized to further the view; gardens, mirrors, wall coverings, works of art, even electric light, came at some point or another to serve the bigger picture. Whatever helped improve the view or lend spaciousness was considered. Or, as Neutra put it at the time: "Anything that may serve the satisfying illusion of expanse is important."[4]

Gardens Outdoors and Indoors

> If the outside dominates the inside-outside relationship, this is because the outside is the only thing that really matters: what one sees and what is seen.
> Henri Lefebvre, 1974[5]

Exterior landscaping had long served the purposes of providing green views from within the private home; the Picturesque landscape was premised on it. Repton, recall, went so far as to claim the most important element in landscape design was the window. This was usually not the end of it though, as part of the pleasure of a private garden or landscape was the movement through it.[6] Accommodating movement and orchestrating landscape views required in this way

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4. In *Mystery and Realities of the Site* (Scarsdale: Morgan and Morgan, 1951) 55.

5. *The Production of Space* [1974] (Oxford: Basil Blackwell, 1991) 315.

6. Landscape views, even those from within the home, were conceived as moments in a larger territory. Views often marked one's movement through the landscape, like a miniaturized Grand Tour, visually punctuated by famous landscapes and cultural highpoints. Like a tourist site, a view even encouraged movement by proferring a visual reward for one's peripatetic labors. Movement in, around, and through scenery became the subject of careful choreography with some even dismissing the thought of a wholly sedentary view. Richard Payne Knight, for example, noted that "few persons ever look for compositions when within doors." Indeed, movement in general was a staple of Romantic thought. See in this regard, Walter Hipple, *The Beautiful, the Sublime, and the Picturesque in eighteenth-century British Aesthetic Theory* (Carbondale: Southern Illinois University Press, 1957) 222-23, 232; Hugh Honour, *Romanticism*, (New York: Harper & Row) pp. 107-109; Gina Crandell, *Nature Pictorialized. "The View" in Landscape History* (Baltimore: Johns Hopkins University Press, 1993) 136.

ownership of a landscape, not to mention a small band of gardeners to keep it in tune.[7] There were many ways in the eighteenth and nineteenth centuries to represent a landscape indoors: painted walls or wallpapers, landscape paintings, postcards and photographs, even maps.[8] But an experience of the outdoors required going out into it or else bringing bits of it inside.

Interiors in the nineteenth century did indeed grow lush with strewn or hung flowers and branches, potted plants, window boxes, terraria, and indoor conservatories. Even relatively humble homes enjoyed one or another reminder of the shapes, colors, and values associated with nature. Such features could readily evoke nature because, for the most part, they were, like exterior vegetation, little bits of nature, small, perhaps, but nevertheless organisms occupying real space and capable of life on terms independent of the human sphere. Fragments of flora may have enhanced views to the outdoors, but they were more often taken as specimens of nature or reminders of the exotic. Shirley Hibberd, a great champion of "domestic vivaria" and Wardian cases, appreciated the "tiny imitation" in the house of nature's dramas: an aquarium, for instance, allowed contemplating "in the quiet retirement of our homes, things born and nurtured in the depth of great waters." Specialties like aquaria drew both from technical advances in the natural sciences and from scientific methods of collecting and categorizing. Hibberd thought the best homes should, like a well-bred naturalist's workshop, abound in "gatherings of all kinds from the world of art and the world of nature that demand attention."[9] Such gatherings could certainly benefit the views out while limiting those inward bound. One particularly elaborate window design, he noted, "is an elegance peculiarly adapted for the window that commands an unpleasant look-out, or where inquisitive eyes impose a limit on privacy." [Fig. 8.1] Still, in keeping with naturalist interests he conceived of his invention as a whole new species of window, the "*Hortus fenestralis*, the window garden *par excellence* and the *multum in parvo* of its kind." Though

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7. The relationship between landscape and land ownership is a long one. In 1712 Joseph Addison had written, "A man might make a pretty Landskip of his own Possessions." Cited in Christopher Hussey, *The Picturesque. Studies in a Point of View* [1927] (London: Frank Cass, 1967) 128.

8. Regarding the dream of merging indoors and out, see Robert Harbison *Eccentric Spaces* (New York: Knopf, 1977).

9. Shirley Hibberd, *Rustic Adornments for Homes of Taste*, [1856] (London: Groombridge, 1870) 13, 96.

scoffing perhaps at the ornamental impulses behind them, modern architects eventually made good use of the "diminutive bounties" produced by Hibberd's domestic adornments.

In the twentieth century, the relatively new capacity to open up the walls of the house provided a new way for the outside to find its way indoors. No longer simply the setting for an architectural jewel or an approach to one, the surroundings were more and more a part of the interior. The outdoors loomed larger and larger inside the house just as it did in the activities and imaginative literature of those urban dwellers drawn to the enormously popular fad for outdoor living in the late-nineteenth century. Indeed, viewing the outdoors through windows became at times a favored rebuke hurled by more vigorous individuals at those connected to the outdoors only through their windows.[10]

While vistas from indoors to out had been a traditional concern for architects and landscape gardeners alike, there was increasing advice to think of the indoors *as* a landscape. *House and Garden* suggested: "let us design our homes as we lay out our gardens--for pleasant glimpses."[11] The converse, placing the "exterior walls" of one's home at the property line to create a "house out-of-doors" and to protect "against the gaze and intrusion of outsiders," was just as frequent, though it was not uncommon before this.[12] Further, what might be called the architecturalization of the garden has recently been the object of historical studies; the subject of this and the following chapter--the interiorization of landscape--has not been as well served.[13]

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10. John Burroughs thought it was not enough to see nature "from parlor windows and through gilt-edged poems." Cited in Peter Schmitt, *Back to Nature* (Baltimore: Johns Hopkins University Press, 1969) 25.

11. *House and Garden* (February 1922)

12. In Richard Pratt, "The Development of a Landscape Plan," *House and Garden* 41:2 (February 1922) 30-31.

13. Regarding the former, see Marc Treib, ed. *Modern Landscape Architecture: A Critical Review* (Cambridge, MA: MIT Press, 1993).

In 1934 Ethel Power cautioned readers of *House Beautiful* not to be too hasty dismissing modern architecture for its blocky and plain look. There were after all "two standards by which to judge a house: as something to live in or as something to look at" and the two standards influenced one another. A modern house would come to look better once it had been lived in and appreciated for its satisfaction of functional needs and the restful quality of its interiors. Smooth surfaces, simple but cheerful colors, and functional furniture all contributed to the interior air of calm, but nothing more so than the unprecedented relationship to the outside: "the admission to a large degree of the out-of-doors, making the surrounding landscape as important to the room as a large canvas hung on the wall."[14] Three years later, the periodical gave William Wurster two awards for house design. One site had "magnificent views" that "would have been a challenge to any architect." Wurster succeeded in part by making the views a piece of the indoors: "Enormous windows not only open the house to the outdoors but seem to bring the view inside." Another award went to his design for a week-end house and the way it not only addressed the views but seemed to humble itself before them: "The most notable attraction of this week-end house is the way in which it subordinates itself to the views that dictated its location."[15] Accommodating views, perhaps even obsequiously so, and bringing them deep within the interior of house was more and more a task for house design.

An editor of *American Home* magazine explained that: "Modern designers try to make your own garden and distant panoramas part of your rooms."[16] This effort implied in turn new ways of designing: At the very least, "window locations should be planned with reference to the view and to privacy from neighbors and street"[17]; Others like Wurster might subordinate a design to the view; *Good Housekeeping* suggested a recipe approach: Step One was "Find your best outlook (if

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14. Ethel Power, "Talking Points on Modernism," *House Beautiful* v.75 (June 1934) 60-62, 74.

15. "Hill-Top Survey" was a design for Frank McIntosh in California and "From Hills to Sea" was a house for Diantha Miller, also in California. In *House Beautiful* (March 1937) 44-45, 48.

16. William Hennessey, in *America's Best Small Houses* (New York: Viking, 1949) 13. The best small houses were "selected by a jury of architectural photographers."

17. *Architectural Forum* (October 1951).

you don't have a view, make one with planting or a garden wall"[18]; J.B. Jackson imagined in "The Westward Moving House," that the view might be the first part of the house built and would then guide other design decisions.[19] The emphasis on views was itself part of a larger tendency which recalled the back-to-nature movement of the nineteenth century. "The trend today is toward more outdoor living. Thus, more and more importance is being given to the house site, including the nature and the layout of the lot and the orientation of the house," wrote Glenn Beyer in his survey of attitudes toward house design.[20] But in this case, the former emphasis on being in nature or at least obtaining views by moving through a landscape was no longer necessary since architects advised having views readily available from almost any point within the house. Nelson and Wright were not alone in claiming that even the bathroom "is entitled to just as good a view" as any other room.[21] [Fig. 8.2] In short, across a range of published discussions of houses the most notable new visual object on the inside had become the outside.

In all cases, the view was the combined result of large areas of glass and the corollary effort to make sure there was something pleasant to see beyond them. The technical ability to turn walls to glass seems in fact to have developed in tandem with the growth of landscape architecture, a central task of which toward the close of the nineteenth century was "reintroducing nature to the middle class." "Landscaping"--the term was coined at the start of the 1930's--grew rapidly as both a popular and professional activity with the simultaneous growth of suburbs and the use of larger amounts of glass in the home.[22] If bringing the work of the landscape profession indoors was the goal, nothing worked better than a wall of windows: "Where it is desirable to bring

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18. "Try on a PICTURE WINDOW," *Good Housekeeping* 126:2 (February 1948) 70.

19. "He has even put up a rough frame where the picture window will eventually be, and Shirley never tires of looking out of it, over the vacant prarie and the strange rock formation below." In "The Westward Moving House" *Landscape* v.2 (Spring 1953) 17-18.

20. Glenn H. Beyer, *Housing and Society*, [1958] (New York: Macmillan, 1965) 280.

21. Nelson and Wright, *op. cit.*, 107. The authors argued that a small bathroom window was actually the greater violation of privacy since it "invariably proclaims the location of the bath to the passerby." See also, "A Bath with a View," *House and Garden* 101 (February 1952) 70-71.

22. See Schmitt, *op.cit.* 61.

outdoor environment, so far as possible, within the house, there can be no more effective means than the use of a continuous series of picture windows that virtually create a transparent plate-glass wall."[23] Any perception of an intervening plane of material was diminished with large windows and clear glass so that, as one window manufacturer claimed, "the beauties of nature beyond the windows seem really to be built into the house."[24] Putting it more aggressively, Andersen Windows chided: "Don't even think of keeping nature's beauty *outside* your home! Let Andersen Windowalls frame your view, make it a part of your decorating scheme."[25] Alternatively, the same product could be used to create the "illusion . . . that the *inside* of the home is really *outside*, in the sunshine and fresh air."[26] The new role of the landscape had been linked firmly to the fortunes of glass-walled modernism.

In such instances the view was more than simply a picture window conceit. It was a new object in the interior; "The view is part of the decorating," and came to be increasingl subject to evaluation by interior criteria.[27] Considering the landscape as part of the interior meant also that all the elements between the eye and the outdoors would come under the auspices of interior design. Thus, planting a row of hedges at the property line was like "moving the 'curtain' out to the lot line."[28] This was not the cheapest route: it added a new professional, the landscape architect, to the design team and it required "more than a nominal investment in spiky evergreens." Despite the expense, Nelson and Wright assured frugal small-house buyers, "such effects . . . pay off,

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23. Harold Donaldson Eberlein and Cortlandt van Dyke Hubbard, *Glass in Modern Construction. Its Place in Architectural Design and Decoration* (New York: Scribner's, 1937) text to plate 4.

24. Pennvernon glass advertisement, *Architectural Record* 71:1 (January 1932) 41.

25. "A View? It's really Yours with Andersen Windowalls," advertisement, *House Beautiful* 95:2 (February 1953) 115. See also: "We Decorated with a View," advertisement for Libbey-Owens-Ford *House and Garden* (August 1947) 8: "We had a gorgeous view and we simply brought it indoors . . . through Picture Windows. It's like owning a mural that changes with the seasons. Guests just gasp when they come in."

26. The advertisement for Andersen Windowalls called this "Kitchen Sorcery." In *Architectural Forum* (December 1948) 45.

27. *House and Garden* (May 1953) 72.

28. Nelson and Wright, *op. cit.*, 174.

however, in a feeling of spaciousness that can make a compact house seem twice its true size."[29] In the nineteenth century a view could serve as visual proof of a landscape that was legally owned; in the twentieth-century discussions of views in architectural publications, a view was related more to an unowned landscape that had been interiorized.

Nature in the house thus no longer had to be carried in or painted as in the past. This led one historian of interior design to observe a diminished interest in nature in interior design beginning at the start of the century, "a retreat from nature in interior decoration which has continued to the present." This was due to changes in the temper of the home; it had become more comfortable. With "interiors that are warm and well lighted, we no longer feel the need to bring the outside inside."[30] Though recognizing that a "desire to open up the walls of the house and admit the garden, either literally or figuratively, is a constant in the history of house design and decoration," one could be forgiven for overlooking the modern American interest in "gardens indoors" because they had become both much more literal and much more figurative.

If figurative incorporation of nature into the home is taken to mean nature most richly imagined, then Frank Lloyd Wright's weekend house for retail magnate Edgar Kaufmann, completed in 1936, surely defines a high point. [Fig. 8.3] Shrubberied structure had been evident in Wright's earliest drawings and few subsequent projects fail to conjure compelling natural correlates, whether the stylized stained glass of the Prairie houses, the recreated ledge at Taliesin East, the mountain silhouette of the Imperial Hotel, the stream running through the Hollyhock House, the dendriform columns of the Johnson Wax building or its submarine reception area, the found boulders and mountain orientations of Taliesin West, or the great spiral shell of the Guggenheim. But Fallingwater was in many ways unprecedented; while its individual aspects had been anticipated in Wright's own or others' work, nowhere else had so many variously reckoned

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29. *Ibid.*, 153.

30. Ronald Rees, *Interior Landscapes. Gardens and the Domestic Environment* (Baltimore: Johns Hopkins University Press, 1993) pp. 147, xii, xiii, 167.

intimations of nature been so well coordinated as in this project.[31] It gained national attention, appearing in January 1938 in *Time* magazine and a special issue of *Architectural Forum* and, soon after, a one-building show at New York's Museum of Modern Art.

Wright's was a notably hard act to follow though, and the incorporation of nature after Fallingwater was usually pursued more literally, in terms of accommodating relatively large indoor plantings. Though nature had never actually fallen out of favor as a design theme, the project's popular success challenged many professionals to think past the concerns which had occupied them since the start of the Depression.[32] "Increasingly apparent in residential design," *Architectural Record* told its readers in 1940, "is the use of growing plants as part of the interior decorative scheme, and the provision, integral with the structure of the house, of plant beds."[33] Wright's contribution to MOMA's "Tomorrow's Small House" exhibition in 1945 combined living and dining spaces into a "garden room," a "great glass square" with a central "movable clerestory," reminding the show's curator Elizabeth Mock of a "modern version of the Roman compluvium," without, of course, the rain. [Fig. 8.4] Plantings performed the interior design work, forming "a green and fragrant partition" between interior spaces that required some functional separation.[34] Reflecting shortly afterwards on Wright's legacy, Mumford thought this integration answered a deeper impulse: "It was the idea of the organic itself, the desire to embrace

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31. H.H. Richardson's Ames Gate Lodge featured roughly coursed local masonry; Charles Keeler's house outside Berkeley had a boulder coming through the floor of the living room; Ledoux's "House of the Surveyors of the River" was built over a stream; earlier homes had carried flagstone floors past the walls to the outside; and generous glass walls were already a commonplace. But no one had integrated these elements so carefully, attending to the sound of rushing water, the feel of rough flooring underfoot, as well as the sight of surrounding forest.

32. Neutra, for instance, whose reputation was founded on technological innovations and novel materials, first used redwood siding in 1937 though the material had long been a staple of what would come to be called "Bay Area" architecture. In his Mandrot house, Le Corbusier anticipated the prominent use of natural materials in modern design by several years.

33. "Floricultural," *Architectural Record* (December 1940) 67ff.

34. *Tomorrow's Small House*, Bulletin of the Museum of Modern Art, New York, XII:5 (Summer 1945) 17.

nature, that led to the introduction of the garden into the interior."[35] Even if the house should be assertively inorganic, indoor plantings could lend it a "garden quality."[36]

Reasonably enough, indoor plantings were kept close to windows and daylight, as they had in the past. But never before had they become so routinely related to the view, shielding the inside from eyes on the outside and obscuring from the inside disagreeable aspects of the outside. This was especially true in suburban developments where pastoral motifs very often encountered counter-pastoral elements. With appropriate indoor planting providing selective screening, however, "a not too desirable view can be made a center of attraction." Any number of periodical articles or regular columns on indoor gardening appealed to the logic of views to explain the purposes of indoor plants.[37] Besides screening, indoor plantings could actually create their own view: "If you haven't a view, try a window-box garden ... to give city rooms a country look," wrote one author regarding the 1950's vogue for integrated indoor plantings.[38] Another indoor gardener observed of her enclosed balcony garden that, "one does not see a plant in a pot as they all look as if they were growing out of the rocks and moss-covered earth."[39] Pots and other paraphernalia were less evident with built-in gardens, thus helping to maintain illusions of a natural landscape, however miniaturized.

While a new generation of landscape architects sought to reformulate garden design to accord with functionalist arguments common in architectural discourse, they were well aware that popular attitudes toward landscape were primarily pictorial, a habit of seeing shaped in an earlier

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35. "Function and Expression in Architecture", *Architectural Record* (November 1951) 111.

36. "One of the most unique features of" a house desgin by Quincy Jones, was "perhaps the unusual indoor-outdoor relationship created by bringing garden strips into the house throught the entrance, and along the periphery of exterior walls." In "A Permanent Structure with a Changeable Plan," *Architectural Record* 119:6 (Mid-May, 1956) 195-97.

37. *82 Distinctive Homes from Architectural Record* (New York: Dodge Corporation, 1952) 378.

38. *House and Garden* (May 1951) 142.

39. Mrs. Philip Van Horne Lansdale, "Bring your garden indoors," *Garden Club of America* 41:2 (March 1953) 4.

age. Though he stressed that a garden should first and foremost be an "outdoor space for people to live in," Garrett Eckbo realized that, for most people, their private landscape was a "lovely picture," a place more for viewing than for living.[40] But the glass wall, which had made the garden more prominent in the small house and fueled the emergence of the landscape profession, also perpetuated the pictorial understanding of the garden. Seeing the garden through the glass wall was an entirely different experience than the "outdoor living" stressed by modern landscape architects. The visual benefits conferred upon the inside, such as spaciousness, could outweigh the appeal of outdoor living. In the case of one city garden, a glass wall separated the activity of gardening from the much more mobile "garden idea." A view rendered "the garden a source of stimulation and delight to the inside occupants. A garden of this type has nothing to do with gardening, as such, but nevertheless seems to inspire a sense of garden without the trappings associated with the garden idea." In this case the "garden idea" seemed to imply the visual apprehension of greenery.[41] Correspondingly, a "garden vista" might be had without either garden or vista, by arranging some plants before a mirror. Gardens even appeared at times as a species of view: in architect Arthur Gallion's house design, read an April 1952 article in *House and Home*, the "garden . . . is a close-up version of the verdant panorama beyond."[42]

In many earlier instances, gardens had been subordinate to views in terms of their contributions to a picturesque environment. Herbert Croly, for one, thought gardens essentially served the view: "The garden is merely an incident to the view, and its minor beauties cannot compete with the great effects of distance, of sunshine and shadow, of cloud and foliage, of varied colors and solid form, which a fine big view offers."[43] Gardening, then, was often directed toward improving the

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40. "Outdoors and In," *Magazine of Art* 34:8 (October 1948) 422.

41. "City House and Garden, Ernest Born, Architect," in *The 1936 Book of Small Houses, Architectural Forum* (New York: Simon and Schuster, 1036) 161.

42. *House and Home* (April 1952) 91.

43. "Houses" issue, *Architectural Record*, XVIII:1 (July 1905) 2-3.

view, to whatever extent it could.[44] Later architectural discussions of exterior landscaping may thus be distinguished from earlier ones, to which they were still closely related, by the increased separation between an actual garden and "the garden idea," and by the determined incorporation of gardens within the purview of interior design.

The fruit of the growing connection between indoor plantings and windows was the outdoor-indoor garden, a garden type not simply related to a window but formally defined by one: a planting bed passing underneath a glass wall. [Figs. 8.5-8.6] It both dramatized and literalized the goal of "bringing the outdoors indoors."[45] The type starts to appear in earnest in the early 1940's. Neutra's 1942 Nesbitt House offered a particularly elaborate and well-publicized instance: a shallow pool with water lilies passing beneath a large sheet of glass and terminating in a brick fireplace that is extended to form its own planting bed several feet above the pool. The photograph taken by Julius Shulman masterfully pushes the theme of continuity even further. In the photograph, the pool and planted fireplace generate a diagonal that leads the eye to the backyard; the ensemble is framed above by reflections of the front yard, by a brick wall set in unraked mortar to one side, and a large plant to the other side. Were it not for the plant in the photograph, which has been placed, improbably, directly in front of the front door, entry into the house would be accompanied by the pool and visual continuity thereby rephrased by movement.

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44. Robert Kerr, for example, thought that the view was more readily improved than a poor orientation: "the satisfaction of an agreeable prospect may be so far procured as a little ingenious gardening can effect it." A bad "aspect," or exposure, on the other hand, could never be fully made up for. In *The Gentleman's House*, [1864] (New York: Johnson Reprint, 1972) 80.

45. The garden and the modern house had been converging for some time. In 1938 Joseph Hudnut explained that prior relations between house and garden had been based on style, an option which "has been destroyed by the advent of the new house." He wondered how a new harmony between the two might be obtained. Modern architecture was already aimed toward garden in a sense since "the keynote of modern architecture has become a friendliness to the out-of-doors. . . . an opening towards the health agents and the primary aesthetic offerings of nature." Flowing space, he proposed, might be the "new principle of order" that linked them together: "Gardens, like houses, are built of space. . . . We now see that space of the house and that of the garden are parts of a single organism; . . . The garden flows into and over the house--through loggias and courts and wide areas of clear glass." Reported in "Gardens for Modern Houses," *Monthly Bulletin, Horticultural Society of New York* (January 1938) 6-8.

The outdoor-indoor garden was also closely related to the view. If a house was lucky enough to have already "an unobstructed view of the garden or landscape," then "outdoor-indoor planting frames the view, or furnishes the foreground for it." Since the outdoor-indoor gardens straddle an exterior wall, they "seem to extend from the outdoors right through a glass wall into the house [and] establish a strong tie between the house and its site," just as a view was thought to do. As such, they were appreciated as a kind of built corollary to a view: "It is certainly a logical concomitant of bringing the view inside, of integrating indoor and outdoor living, of making the house a natural outgrowth of its site."[46]

Nearly all gardens consequently, whether in, out, or "half-in half-out," began to acquire characteristics of the views they paralleled. For one thing, they shared with the glass-bound open interior a logic of misperception: "The indoor-outdoor garden is a further contribution to the cheerful confusion between interior and exterior."[47] In another example, the indoor-outdoor garden reinforced the action of the view in creating the "indoor-outdoor living room." Plantings that appeared to continue right through a glass wall were "a partial answer" to "a universal American wish . . . to spend more time in the garden." Another part of the answer apparently was the broader view through both glass and garden, which *Life* magazine diagramed for its readers. View and indoor-outdoor garden amplified one another: the view "through the glass wall shows how room and garden blend together."[48]

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46. *82 Distinctive Houses*, *op. cit.* 378.

47. Said regarding a design by Hugh Stubbins, which, besides being spacious, was also "compact and economical." In *Tomorrow's Small House* Bulletin of the Museum of Modern Art, New York XII, 5 (Summer 1945) 14.

48. "Indoor-Outdoor Living Room," *Life* 18 (28 May 1945) 54-55, design by architect Samuel Marx and Associates.

Night Light

> Broad noon shall be my England of the senses and the understanding; the night shall be my Germany of mystic philosophy and dreams.
> Ralph Waldo Emerson

Nighttime illumination was another means of enhancing a view and securing it to the interior. If the purpose of a glass wall was to let in a view, then lighting the landscape made the glass wall that much more functional. An electrified landscape lengthened the viewing day, improving the view in terms of duration, and "prolong[ing] its effectiveness over the whole twenty-four hours."[49] If a house's visual focus had been displaced from the house itself, or objects inside the house, to the view outside, then night lighting made the house that much more interesting. "A major part of the visual interest" of Philip Johnson's Glass House in New Canaan, Hitchcock asserted, was the view of the surrounding landscape, available "by day and by night also, because of the elaborate outdoor lighting."[50] In any number of proposals promulgated at the time, darkness was considered an inconvenient part of the diurnal cycle, one that compromised vision and what might be termed the "use value" of a view. Having the view for more hours of the day made the glass wall more effective as viewing pleasure reached beyond dusk, the view's presence unbroken by the night. The view could thus become as durable a feature of the interior as the furniture.

Besides extending the hours that a landscape would be open for viewing, nighttime illumination also addressed other "problems" introduced by large areas of glass. Because "their blackness is depressing," glass walls could be a visual blight after sunset. Many popular periodicals noticed this effect and usually counseled the use of curtains, which was continuous with traditional practice and contributed some degree of thermal insulation. For those who followed modernist principles more strictly, "window treatments" should be kept to a minimum. "Some modernists," noted the interior design critic for *McCall's*, "would eliminate all window curtains." Being quite modern herself, Mary Davis Gillies told her readers, the "nine-foot windows" in her apartment had no shades to control the direct sunlight. After sundown she used "draw curtains, however, to cut

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49. Neutra in *Pencil Points* 18:7 (July 1937) 416.

50. Henry-Russell Hitchcock, "Philip Johnson," *Architectural Review* 117, 700 (April 1955) 240.

out the black square of night."[51] *Architectural Forum* suggested instead that the dreary effects of black walls be "corrected by sloping the glass and, when the scene outside is dark, spotlighting the view."[52] Such thoughts made even more literal the dramatization of nature for the visual delight of the house's occupants. Exterior lighting had previously been directed toward the house entry for the safety of approaching friends and family members or to display the house itself to the street. By the 1950's, no more admirable use of domestic exterior lighting could be imagined than exhibiting the view.

Another option for night lighting was to light the glass wall itself from the outside and, in so doing, light the interior. Neutra said he often used a "pure white light, supplied from fixtures which are concealed" in eave soffits. The benefit, he thought, was an enjoyable sense of ill-defined or even non-enclosure: "It results in a pleasing effect of openness to the night. The interior space seems to be extended into an indefinite exterior space that only gradually recedes into total darkness." As an added benefit, outdoor lighting created reflections on the outside of the glass wall, obscuring the view to the interior and thus rectifying the glass wall's most serious shortcoming, its threat to privacy. Almost off-handedly Neutra noted, "privacy within is secured simply by means of the *optical screen* produced by reflection on the exterior window surfaces." Thus, with careful lighting at night, the twin demands of privacy and spaciousness could still be served and outdoor space visually "drawn on even when there is no moonlight."[53]

Although he was a fan of outdoor lighting, Neutra didn't mind the "feeling of being enveloped by the night" once the landscape lights were switched off. Revealing what would have later been considered a postmodern delight in simulacra, he rather enjoyed the mirror effects of the uncurtained glass wall at night: "We see nothing of landscape but only the room, duplicated by reflection." The effect had the merit of visually doubling the room, although Neutra

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51. Mary Davis Gillies, *op. cit.* 91, 93.

52. "A Memorandum to 194X Architects," *Architectural Forum* (September 1942) 69.

53. In *Survival Through Design*, 193 (Emphasis in original).

acknowledged an eerie aspect to this brand of spaciousness, calling it "a very different, a phantomic extension."[54] In this precise doubling of the apparent space, the view is indeed uncannily of oneself looking toward the view.

At the same time that architects were exchanging their views of outdoor lighting, the French phenomenologist Gaston Bachelard was writing *The Poetics of Space.* In that book, Bachelard described "the lamp that glows in the window" as an embodiment of "one of the greatest of all theorems of the imagination of the world of light." Light signifies consciousness, he wrote, and the lamp in the window is "the symbol of prolonged waiting," suggesting wakefulness, however tenuous, in the still and surrounding darkness. The greater the darkness and "the narrower the ray of light, the more penetrating its vigilance." While Bachelard actually only implies the enveloping night, he is specific concerning the light: it is congruent with its source and "it is never lighted out-of-doors, but is enclosed light, which can only filter to the outside."[55] What, one wonders, would Bachelard have made of "a battery of 12 floodlights and spots" blanching the out-of-doors and carving out of the surrounding darkness a professionally lighted "spectacular outdoor stage."[56] [Fig. 8.7] If lamplight filtering outside signified, as he put it, "prolonged waiting" and an intense moment of consciousness, would the wired and fully-illuminated landscape be the sign of some kind of arrival? Did this invalidate the phenomenological project of describing transcultural essences, or did it signal a new phase of human perception? Or, would Bachelard have considered it a kind of madness to think that night, celestial paradigm and foundational human metaphor, might be put off because it interfered with the view?

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54. Neutra's more detailed understanding of the effects of nighttime illumination was a product of his physiological view of environmental perception in general. His thoughts on the subject should be placed in his larger critique of interior design and conventional practices of uniform lighting. For Neutra, such conventions were an affront to the eye's evolutionary needs, for which he attempted both to design and describe ways an architect could achieve "refreshingly varied experiences of *space through illumination.*" *Ibid.* 193. Reflections were more disturbing to Fritz Tugendhat: he reported using curtains to diminish the mirroring of walls. In Wolf Tegethoff, *Mies van der Rohe. The Villas and Country Houses* (New York, 1985) 98.

55. In *The Poetics of Space* [1958] (Boston: Beacon Press, 1969) 33-4.

56. "Mr. Welch builds a living center," *House and Home,* (October 1952) 98-103.

Parts of View

"Even if there is not one shred of view," insisted Neutra, windows may still be designed to "yield pleasure" the way that a view would. Citing the example of traditional Japanese homes built "on miserably small lots," Neutra described ways to provide the aesthetic benefit of landscape views without any scope of land at all. He suggested fitting a window opening with translucent glass and then planting vines outside of it. When the sun shines on the plant he explained, its shadow will be cast on the glass, offering someone on the sunless side a shape of nature that, however abbreviated, would still be a "fragment of the universe and an ideal landscape"[57] Despite the small dimensions and conventionalized forms of Japanese homes, he wrote elsewhere, "the planting of the often tiny yards offers a glimpse of the biological universe where there is no geometrical law, like the ones to which economical construction must adhere."[58] Economy imposed limits that views voided. Like a hologram fragment or a kind of architectural homeopathy, the view shard proposed by Neutra contained within it the entire range of natural values associated with a larger view. Good news indeed for financially-strapped clients: a view on to a more generalized "natural wholesomeness--as much as we can reproduce it or recreate it" was available independently of the actual site.[59]

One of the more imaginative variations of view manufacture concerned a demonstration house in Palo Alto by merchant builder J.L. Eichler. [Figs. 8.8-8.9] "To show how a development house on an 80x100-foot lot can be given a view by the use of art," Eichler's designers "loaded" one of his homes with "paintings and decoration indoors and out." Colors and patterns were repeated in the house and in the yard with sculpture and murals. There was as a result, a view, that is, something to look at through the glass wall, from wherever one stood. The art outdoors could "provide a view from inside" while the same arrangements "indoors may be enjoyed from outside." The

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57. *Mystery and Realities of the Site*, 56. The strategy was not entirely a new one. A similar approach was earlier proposed to create a green view through vines, only, in this case, planted on the inside: "A view through green foliage in winter can be enjoyed from a room if vines growing in pots on the window sill are properly trained." In "Beauty indoors", *Indoors and Out* III:2 (February 1907) 257.

58. In *Contemporary Landscape Architecture and its Sources* San Francisco Museum of Art, 1937, 22.

59. *Mystery, op. cit.*

whole effort was premised on there not being enough acreage in this subdivision to support "the delights of nature" suburbanites had come to expect. Accordingly, the article, deemed by *Life* magazine to be of national interest, was entitled: "Big Outdoors on a 100-foot Lot. Varied art is used to give hemmed-in house a view." The "view," the article continued, was not only not of "abundant acres." It was barely even visual in the sense that any perception of depth was not the result of either seeing a great distance or recreating the perceptual triggers, such as overlapping objects or diminution, by which the mind recognizes distance. Instead, the article explained, a mental association between inside and out would be stimulated by finding formal relations between the objects placed throughout the site and the corresponding knowledge of their original settings. In other words, seeing on the inside of the house forms previously associated with an exterior setting would bring with it thoughts of that setting. An illustration, for instance, showed a sculpture inside the fireplace that "resembles" the sculptural panels outside. The image is captioned: "Living room looking toward garden brings outdoor ideas indoors." Once the outdoor art had been associated with the outdoors, then seeing something similar inside would, the argument went, conjure thoughts of that larger setting. The psychological mechanism was fundamentally Pavlovian. Finally, as if to demonstrate with both popular and financial success the ultimate wisdom of the proposal, the article concluded: "The house was open to public view for two months. Afterward, with the permanently installed art, it sold for $32,000," quite a sum at the time, any reader would have recognized, for a hemmed-in builder's house.[60]

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60. *Life* 37:20 (15 November 1954) 120.

> One should only allow the quicksilver effects of mirrors a utilitarian existence in the dressing-room. In the other rooms of the house mirror-effects, which continue to reflect their surroundings again and again in a different light, disturb the general architectural impression, for they do not last. When kaleidoscopic effects are wanted, they are perfectly justified. Otherwise it is best to do without the quicksilver-mirror; for it is dangerous--like poison.
>
> Paul Scheerbart, 1914[61]

The "vanity and elegance of the French," thought Frank Lloyd Wright, was behind the first architectural use of mirrors, during the Rococo. The effect was novel and bright, even the frequent seams required by limited glass sizes added to the overall appeal. "But now," he wrote in 1928, "the walls might disappear . . . Nicely calculated effects of this sort might amplify and transform a cabinet into a realm, a room into bewildering vistas and avenues: a single unit into unlimited areas of color, pattern and form." This was truly something new with modern architecture, even definitive. With all the possibilities though, Wright paused to reflect, it was important to exercise caution, "for the tendency toward the tawdry is ever present in any use of the mirror." To use it "*architecturally,*" he suggested, would mean "to extend the vista, complete the form, multiply a unit where repetition would be a pleasure, lend illusion and brilliance in connection with light-effects--all these are good uses to which the architect may put the mirror."[62] At this point, Wright thought the architectural uses of mirrors plentiful, not only intensifying depth but completing or multiplying forms as well and revealing a new spectrum for architectural expansiveness.

Wright's imprimatur only added to the domestic use of mirrors, which had been on the rise for some time.[63] After the Rococo, Soane made famous use of mirrors to achieve a variety of effects

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61. Paul Scheerbart, *Glass Architecture* [1914] (London: Praeger, 1972) section 23.

62. Frank Lloyd Wright, "In the Cause of Architecture. VI. The Meaning of Materials--Glass" *Architectural Record* 64:1 (July 1928) 12-13.

63. Still, Russell Sturgis, in the 1901 edition of his *A Dictionary of Architecture and Construction*, thought the mirror a "feeble kind of decoration" which "enters into architectural design only" in the "Gallery or Hall of Mirrors," the most important example being the Galerie des Glaces at Versailles. v.3 (New York:

in his own house in London. Other Picturesque-era architects also experimented with them, placing them at the ends of halls to reflect interior vistas and, certainly, to enhance the sense of space. While mirrors were occasionally used indoors to reflect outdoor scenery, the era's most noted mirrored landscapes were the work of the Claude glass: for the most part, eighteenth-century reflections of nature were found outdoors, adjacent to the original.

Inside the house, mirrors that would reflect a landscape were limited by the window openings opposite them. Specular landscape fantasies were, as a result, more elaborate. Interior plantings and window gardens had long been appreciated as "a very legitimate method of hiding the blemish," whether the blemish be a dirty fireplace or an "eyesore in the landscape." Henry Hudson Holly, however, recalled one window garden remarkable for its mirror effect: "I have seen a window looking simply into a vacant court made to serve as a frame to a miniature Swiss landscape, by the introduction of rock-work and a few ferns, which, being reflected in a diminishing mirror, had precisely the appearance of distant mountains and trees."[64] Plants and rocks provided the nature, a mirror provided the impression of distance, and a disagreeable outlook made the conceit welcome.

As windows grew larger through the late-nineteenth and early-twentieth centuries, interior mirrors were seen by some to be at their best in the countryside, where they could duplicate the outdoor scenery. "A delightful use of mirrors," wrote Nancy McClelland, "which has small chance of consideration in a city house, but is deeply interesting for country house owners, is to place them so that they will bring the outdoors in." In the example she cited, this arrangement made of the view "a sort of miraculous flower painting" that continually changed with the play of the sun.[65] A privilege of country houses, landscape reflections joined the other architectural features and the

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Macmillan) 912.

64. Henry Hudson Holly, *Modern Dwellings in Town and Country* (New York: Harper & Bros., 1878) 203. Similar window gardens were described by Hibberd but without the mirror effects.

65. Nancy McClelland, "Decorative Reflections," *House and Garden* 41:4 (April 1922) 104.

sensibility of spaciousness coming at that time to be associated uniquely with rural and suburban architecture. [Figs. 8.10-8.12]

It hardly seems surprising, then, that *House and Garden* was ready in 1938 to declare that "mirrors are all over the place." But, like the countryside itself, they were becoming more frequently associated with a view. Ten years after Wright's inventory of architectural mirror effects, the advantages mirrors offered were fewer in number and centered on views and spaciousness: "They can create lovely vistas, or amplify them. They can reflect an outlook that would otherwise be lost. They can make a small room seem infinitely larger." When installed at a corner, for example, behind a glass shelf bearing plants, a mirror "creates an enchanting garden vista, though the 'garden' be but a row of geraniums," and the vista gained on the surface of an otherwise opaque wall. Recalling Holly's miniature landscape, *House and Garden* also suggested putting plants on a window sill and mirroring the jambs. The result: "you get the effect of a garden outlook, though you may be facing a brick wall!"[66] Alternatively, "when a view is unpleasant, curtains may be needed to shield the view permanently. In such a room generous use of mirror glass gives sparkle and creates vistas to compensate for the concealed window."[67] Once, a mirror might have added an unexpected virtual vista to the interior; By a certain point, a mirror could compensate for the loss of a vista that had been assumed.

Mirror makers were quick to welcome this line of thought: "When walls get in the way," began an advertisement for Libbey-Owens-Ford, "just make them into mirrors . . . and presto!--they seem to lose their solidity and move back into deep perspective through the illusion produced by reflection."[68] Pittsburgh Plate Glass acknowledged soon after that "large unframed mirrors constitute one of the most popular uses of glass," especially when placed directly above the fireplace. Given that axial relations between the fireplace and the window walls had already

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66. *House and Garden* (February 1938) 46.

67. Gillies, *op. cit.* 91.

68. "Bring a new perspective to view," *House and Garden* 73:6 (June 1938) 67. Ellipsis in the original.

become quite conventional, such mirrors, unframed like the openings opposite them, reflected a view.[69] If at all possible, PPG urged designers, position mirrors opposite a view, to double it. This way, "whichever wall you look at, you're enjoying outdoor beauty!"[70] Having an interior wall reflect a view of the outside meant that large parts of the interior literally looked like the out-of-doors, even if you couldn't move through them. Increasingly related to a view, mirrors had similarly become a medium of calculated misperception and cheerful misjudgement.

Even leading architects of the day were not immune to what Wright might have considered unarchitectural uses of the mirror. Neutra, for one, enjoyed the "delightful confusion" mirrors added to the already confusing optical effects of reflective glass. Looking back on his career, Neutra thought mirrors had made a valuable contribution to the production of spaciousness, making "the ever smaller spaces available demonstrably larger, through transparency, ... through interesting mirror effects."[71] Neutra's own design for a bathroom in his 1935 von Sternberg house stands out from the period's myriad of mirrored interiors. [Fig. 8.13] As production techniques improved, mirrors, like glass itself, had come to be used more generously, in ever larger pieces, and in more and more places. As views replaced other conceptions of nature in architecture, mirrors, like glass walls, improved access to them, and helped them, like night light, last longer in the interior environment. And, as with so many other aspects of the modern house, designers tried to make the view integral with the structure; reflecting the larger landscape, mirrors, too, were akin to a built-in Claude glass: where the well-to-do had once traveled a continent in search of views to reflect and compose in their glass, landscapes were now permanently planted outside the glass wall and their image rested above the mantle.[72]

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69. "A Preview of Tomorrow's 'House for Cheerful Living,'" brochure describing an architectural competition sponsored by PPG, 1945.

70. Pittsburg Plate Glass advertisement in *House and Garden* (May 1951) 51.

71. Richard Neutra, "Psychology of Glass and Mirrors," UCLA: Richard Neutra Collection, box 162, file "April...1932," dated "9/8/65."

72. This use and understanding of the mirror merits a more thorough investigation of this material as evidence of a shift in the metaphorical significance of mirrors. Traditionally, they are a figure of introspection and self-knowledge, an image of mankind or consciousness and not nature. See in this regard Lewis Mumford,

Vanishing Walls

> What shall we do with our walls?
>
> Clarence Cook, 1880[73]

> You may see that walls are vanishing. The cave for human dwelling purposes is at last disappearing.
>
> Frank Lloyd Wright, 1954[74]

Walls, thought architecture and design critic Clarence Cook, were the most difficult of architectural problems because they insistently intersected one's line of vision. Wherever you went in the house, there they were: "We must be looking at them, will or no," he wrote. Wallpapers were well-adapted for this circumstance. Being easy to apply and to clean, easy to change as fashion or relocation dictated, ever cheaper to purchase, and as a result of the foregoing, being a match for "our American migratory habits," wallpapers served efficiency, taste, economy, and national character.[75] Of all the choices available around 1880, only landscape or scenic papers were ill-favored. "One can hardly estimate the courage it would take to own that one liked an old-fashioned landscape-paper," complained Cook. He took aim against the flat floral motifs, which had been popularized by the wallpaper designs of William Morris, by asserting that they failed to "satisfy the picture-loving instinct" shared, he thought, by all mankind. Nevertheless, he admitted, it was still in the interests of good taste "to have the edge of imitation taken off" those designs that strayed too close to illusion.[76]

Technics and Civilization 129; Meyer Howard Abrams, *The Mirror and the Lamp: Romantic theory and the critical tradition* (New York: Norton, 1953) regarding the mirror metaphor in theories of literary creativity and representation; Richard Rorty, *Philosophy and the Mirror of Nature* (Princeton: Princeton University Press, 1979) regarding the mirror as an image of reflective thought; and Benjamin Goldberg, *The Mirror and Man* (Charlottesville: University Press of Virginia, 1985) for a social history of mirrors.

73. *What Shall We Do With Our Walls?* (New York: Warren, Fuller, 1880).

74. In *The Natural House*, (New York, 1954) 53. Said with respect to the use of glass.

75. Cook, *op. cit.*, 7.

76. *Ibid.* 16, 23-5. Still quite popular, though, were "landscape shades," that is, window blinds with landscape motifs. See also, Wharton and Nash, *The Decoration of Houses* (1897) 44: "It was well for the future of house-decoration when medical science declared itself against the use of wall-papers."

Some three decades later, imitation was all the rage. Landscape wallpapers were often reproductions of late-eighteenth century papers used in England and the colonies, sometimes even printed from the original blocks. "The last few years have witnessed a revival of the use of these scenic papers." At the time of the American revolution they were a luxury. Modern production methods made them cheaper though, even if the quality suffered somewhat. The "principal reason for their growing popularity" was not however their low cost. It was rather their compatibility with the increasingly popular colonial revival homes, "which so fully resemble the beautiful homes of the early American Colonists", where "pictorial papers were first used with such excellent results."[77] Many of these pictorial papers were produced in panels made to fit between doors or windows, imitative of "rectangular paintings or tapestries with a decorative border not unlike a frame."[78]

Another type of paper, which was more popular at the time, was imitative in a different sense. It was more illusionistic and seemingly duplicated an outdoor scene. It was particularly suitable for informal house plans since the paper, produced in continuous rolls, could wrap entirely around rooms, "bending wherever necessary about the corners without borders of any sort." The illusory qualities could as well be unbroken, and, some noticed, were especially welcome in small spaces: "the effect was magical in its transformation. Not only did it adorn the walls, but it lent an apparent spaciousness even to small rooms, the illusion being of such delightful realism that by a slight exercise of the imagination one could readily conceive himself to be in the very midst of the scene itself."[79] [Fig. 8.14] Poorly sized openings might also be remedied with papers that mimiced the view outside. "If your window is small, create illusion by hanging landscape paper

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77. "Concerning Old Scenic Wall Paper," *Decorative Furnisher* v.32 (October 1917) 49. The article is largely a citation drawn from an earlier review in *House and Garden*.

78. Phil Riley and Frank Cousins, "Landscape Wall-Paper," *House Beautiful* v.39 (April 1916) 149.

79. *Ibid.* 149.

either side it and planting outside any trees or shrubs which harmonize with the paper's scheme," suggested an article in *House and Garden*.[80]

This second sort of imitation was troubling for some designers. In the first place, it seemed to some an irresponsible denial of reality itself, the reality of the wall:

> In making the pattern for a wallpaper the artist must never forget that it is to be the decoration of a flat surface that will be part of the structure of the room. . . . Because the surface is flat the design cannot be either in high relief or in deep perspective. . . . remote vistas in a landscape paper disturb the necessary rigidity of the wall.[81]

By disturbing the wall, landscape fantasies that were too convincing, disrupted also, like spaciousness itself, the continuous presence of enclosure that was so important in securing sense of shelter. They created "an effect that not only conflicts with the flatness and solidity of the wall, but destroys also that protected feeling of inclosure [*sic*] which we seek in a room." Unlike the spaciousness resulting from larger interior and exterior openings however, the mere illusion of increased exposure was enough to disturb further the already besieged sense of shelter. With "deep perspective ruled out," one was left to choose from among a variety of largely conventionalized natural forms. While the approved designs appear drawn from the anti-imitational mode of Morris, the argument presented for them was entirely optical.[82]

Just a few years after Marcia Mead reapplied a Jamesian anti-spaciousness to the critique of wallpaper, a self-consciously modern style of house design began to appear more regularly on the architectural scene. Subsequent discussions of scenic papers would correlate the most convincing illusions with that modernism. This was only heightened by the fact that the illusions had in fact

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80. Elsie Jenkins Symington, "Let our windows all be filled with views," *House and Garden* (January 1934) 46.

81. Marcia Mead, "Problems of Wallpaper Design," in her *Homes of Character* New York: Dodd, Mead, 1926, 106.

82. *Ibid.* 108, 111.

become even more convincing with the invention of the photo-mural early in the 1930's.[83] James Marsman allowed that "the depiction of distance and depth" and "far perspective" were not "we know, considered strictly appropriate." They disturbed a decorative canon that had evolved over time and dictated that flatness was sacrosanct to a wall. "But," he asked, "what of a photomural in a 'contemporary' room that boasts no architecture to speak of," that is, no trim pieces which finish and establish the wall's edges.[84] [Figs. 8.15-8.17] "What about," Marsman asked again, the room he illustrated that was "tented like a pavilion? It has been 'photomuraled' with wide horizons . . . so that the room appears to be unbounded." Adding even more vista to a style whose strongest recommendation, for many, was the creation of spaciousness through vista, could hardly be considered inappropriate. Other objects, like folding screens, destined for a modern house might then also be "photomuraled.": "Photomurals make dramatic decorations for screens, and are especially happy in Modern settings, as they give a sense of space and endless vista."[85]

Since modern settings already implied space and vista, the design harmony with photomurals lay in the realism of the illusion. In Marsman's tented pavilion, for example, "nothing could convince you that you are not looking out on an actual harbor; and the feeling of space imparted to the room is most gratifying."[86] As for photomuraled folding screens, "they are so satisfying in the illusions they create that they would almost take the place of an actual trip. You could, in short, spend your vacation at home, if you had screens such as these about you."[87] The virtual vacation

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83. "Photo Mural," *Architectural Forum* (August 1936) 13, names Eugene Mollo and his collaborator P. Lamboit, as inventors. The firm of Kaufman and Fabry later claimed rights of invention. Emily Post, writing in 1930, was already leaning toward illusionism in wallpaper tastes. She stated rather flatly that a paper without any perspective "neither increases nor decreases the effect of space." She seems to prefer, though, panoramic papers, with their "deep perspective" and "illusion of space." 448.

84. "Vanishing Walls. A Study of the Use of Photomurals in the Home," *Arts and Decoration* 46:2 (April 1937) 8-11, 55. See also, "Walls are Made into Pictures," *Architectural Record* 80 (September 1936) 235, and "True Photo-Mural: A New Technique of Decoration," *Architectural Record* 81 (February 1937) 86-88.

85. "First of all, you can extend the spaces of your room by photomurals of subjects..." in "Fantastic Screens Become a Panorama of Travel," *Arts and Decoration* 46:4 (June 1937) 18.

86. Marsman, *op. cit.*, 9.

87. "Fantastic Screens," *op. cit.*, 18.

at home, if it didn't appear any earlier, was based on the understanding that both home and leisure had come under the sign of landscape. With the postwar embrace of modernism, photomurals were said even to possess "magic powers" in their ability to transport great scenic beauty to the living room wall. However rhetorical, such a claim provides a recurrent register of the medium's appeal.[88]

Scenic illusions in photomurals became so appropriate in modern houses that they replaced the older papers which had usually favored scenes with some narrative content. Patterns like the "El Dorado," or "fox-hunt wall-paper," or "mythological papers" were popular earlier in the century. "Appropriate human and animal figures are prominent" in such papers and they could be found at the time dwelling amid castles and ruins. Even without figures, the landscapes were often replete with a Picturesque repertoire of garden ornaments being overgrown by a variety of distinct plant forms, offering, in the whole, highly-composed if sometimes somber scenes of visual complexity and intimations of a larger temporal order in which human works find a small but significant place.[89]

In the 1930's narrative landscape scenes were supplemented with industrial and other imagery. Early photomurals were often of maps, or factories, or planes relating epics like "man's conquest of the air."[90] [Fig. 8.18] Increasingly though, narrative content was subordinated to a more general focus "that gives depth or light." While a mural could depict the built environment, it was best taken from a distance: "The confining walls of penthouse gardens and terraces have been decorated with photo-mural vistas. Subjects that give a sense of depth, such as airplane views or skylines and country scenes, can relieve the confined feeling of the small room."[91] Similar to the fictive structures created by the Renaissance application of pilasters and entablatures to bearing

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88. *Progressive Architecture* (October 1948) 46.

89. *House Beautiful* v.39 (April 1916) 148-149.

90. "Murals by Photography," by H.S. Thomas, an employee of Eastman Kodak, in *American Architect* 139:2593 (March 1931) 42-45.

91. Drix Duryea, "Notes on Murals by Photography," *Architectural Record* 80:1 (July 1936) 57-62.

walls, photomurals in the modern house acted as a fictive environment. Perspectival overlays of environment, like those earlier Renaissance overlays of structure, directed the proper "reading" of the architecture.

By the 1950's, Cook's "edge of imitation" had never been sharper. Samuel Paul and Robert Stone, for instance, admired a landscape fantasy on the blank wall of a basement: a mural "painted to simulate a window and complete with hanging draperies creates this illusion."[92] Being entirely underground in a windowless chamber was no longer a sufficient reason to do without a view. Perhaps more than any other type of dwelling, Cold War era bomb and fallout shelters featured photomurals to relieve tensions while waiting out Armaggedon. Perhaps, also, in the context of the bombshelter, scenes of lush landscapes emptied of any sign of human life told the most poignant story of all. As with the idealized suburban views promoted in architectural and real estate literature, the underlying narrative was one of depopulation.

While landscape wallpaper could elicit perceptions of depth and relations with space beyond the interior, and photomurals did so even more convincingly, they both fell short of the ultimate interior decoration, a view. It was a Picturesque conceit to make a view across one's estate look like a picture; It was a commonplace unique to the middle of the twentieth century, though, to think that one might be a substitute for the other. Like McClelland's "miraculous flower painting," a view was likened to "owning a mural that changes with the seasons."[93] A view was, in a sense, a better picture than any picture could ever hope to be: "Instead of having a solid wall with a large picture on it, the post-war home will have a wall of glass that is in itself a natural,

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92. Samuel Paul and Robert Stone, *The Complete Book of Home Modernizing* New York: H.S.Stuttman, 1953, 97.

93. *House and Garden*, (August 1947) 9. Difference number 15 between gardening and painting is "animation," that is, "life and motion," and number 16 is "the seasons, and times of day." In Humphrey Repton, *an Enquiry into the Changes of Taste in Landscape Gardening* (London: J. Taylor, 1806, Gregg International, England, 1969) 166-67.

true-to-life picture."[94] The idea that different forms of visual relations with the outside might be interchangeable became an influential theme in house design. In the well-known book *The Place of Houses*, published in 1974, the authors note: "Paintings can provide artificial substitutes" for "views of the outside world."[95] Even criticisms of the glass wall assumed the language of pictorial space. Geoffrey Baker and Bruno Funaro complained that an entire wall given over to depth perception ended up disappointingly flat: "the *trompe l'oeil* effect of a missing wall misses also the opportunity of heightening the view's effect by punctuation."[96]

Subsumed, then, within a concept of ornament, views could serve many of the ornamental functions once provided by painted, printed, or photographic wallpapers. They could divert attention from qualities that might have been deemed undesirable, such as smallness. Foregrounding a lush landscape could ameliorate other shortcomings of modernism, such as the commonly-expressed criticism that it was an antiseptic style. Philip Johnson understood this when, gesturing toward the walls of his glass house, he was heard to say: "People call this house sterile, but it isn't. Look at my wallpaper."[97] [Fig. 8.19] Figured wallpapers filled the space of a room with stories while depopulated views or the landscape wallpapers meant to substitute for them filled the space of the room with even more space, providing thereby the spaciousness so urgently required of residential design. A specifically human presence was correspondingly lessened both in the making of the building and the perceptual scale of the interior environment. Indeed, the use of indoor gardens, nighttime illumination, mirrors, wallpaper, and views ersatz or

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94. *A Preview of Tomorrow's, op. cit.* no page numbers. Views were frequently referred to with some variation of this such as "living picture."

95. They also note that such views are "animated by changes in the weather and the seasons." Charles Moore, et.al. *The Place of Houses* (New York, 1974) 104.

96. *Windows in Modern Architecture*, New York: Architectural Book Publishing, 1948, 11. The solution was similarly a question of pictorial composition.

97. Cited in Cranston Jones, *Architecture Today and Tomorrow* (New York: McGraw-Hill, 1961, 158).

otherwise all emphasize continuity with the outdoors and adjust the scale of the house to correspond with that of the landscape at the expense of a specifically human expression.[98]

98. Richard Pommer makes a similar point regarding Ludwig Hilberseimer urban design: "The city is like a house, which is about space: now space is filled with nature, but still not with people. Even after a lifetime of criticizing and revising his own work, Hilberseimer never came to realize that . . . nature without culture is, by definition, outside the human realm." In "More a Necropolis than a Metropolis: Ludwig Hilberseimer's Highrise City and Modern City Planing," in *In the Shadow of Mies* (Chicago: Art Institute of Chicago, 1988) 45.

Chapter 9: An Aesthetics of Distance

Screening

Think at once of screening your little visual empire
Richard Neutra, 1951

Capitalize on the Good View--Screen Out the Bad.
Housing and Home Finance Agency, 1952[1]

As Johnson seemed to be proposing, the horizontal extent of his land served as a vertical surface for his walls.[2] The openness of his architecture was at least partly premised on an actual terrain over which he exercised the power to exclude others. More than merely visual, his ownership of land guaranteed his privacy, and his architecture was premised therefore on a form of settlement. His property rights, in short, kept his walls transparent. Lack of property at small or hemmed-in sites did not, as argued throughout this dissertation, turn walls opaque. It triggered instead a great deal of ingenuity to keep them transparent. Of all the strategies for keeping the picture in the picture window, the most important was "screening." Screening formed in fact a conceptual pair with large windows. The term was a broad one and referred to a range of procedures that could enhance a promising view or efface an unsightly one. Exterior plantings, fences, outdoor ornaments, architectural elements such as extended sidewalls, interior plantings, drapes, curtains and other window treatments, even reflections that created an "optical screen" were all possible ways to screen a view. It was precisely because of its connection with screening that glass walls could be so large: with such a rich assortment of potential screens, designers could address any violation of aesthetic standards revealed by ever larger openings.

Addressing itself to those Americans with lesser fortunes than Johnson, the federal Housing and Home Finance Agency insisted that: "The generous use of glass walls is desirable only if those rooms benefitting from its use are shielded from the unwanted vision of street passers-by or

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1. "House and Site United," Construction Aid 3, Housing and Home Finance Agency, (June 1952) 22.

2. Beatriz Colomina puts it nicely regarding Le Corbusier's sketch published in 1954 for a house for his parents on Lake Geneva that he began in 1923: "'Property' has moved from the horizontal to the vertical plane." In "The Split Wall: Domestic Voyeurism," Colomina, ed., *Sexuality and Space* (Princeton: Princeton University Press, 1992) 119.

neighbors."[3] [Fig. 9.1] This was something almost everyone needed to consider since, "for good or for bad," every property will have a view. If "a site has an attractive view in a certain direction," then the house should profit from it, both in terms of environmental quality and, eventually, capital gains. If a house has an "ugly view," however, readers were advised to "use low trees, shrubs, a trellis with vines, high fences, the garage--anything to hide it. Produce something better to take its place." If views were not successfully screened or replaced by "something better" to look at, warned the HHFA, then even the best homes would decline in value: "Many well-designed homes suffer seriously because of ugly neighborhood features in full view at all times." An attractive view benefitted both good living and good investing; indifference to the unsightly strained both nerves and finances. Visual apathy was, the HHFA implied, psychological and fiscal irresponsibility.[4]

Screening thus joins the various strategies for securing a view discussed in the preceding chapter. Vistas were cultivated from gardens, from the night, from art, from mirrors, and wallpaper, as well as from windows that promised pictures. Vistas were interiorized not only to enjoy them but also to protect them, that is, to enjoy them in perpetuity. Screening the view from the inside of the home was in this way the individual counterpart to the legal protection extended to views outside the home, as a result of either fee-simple ownership of a large property or by the viewing rights secured through scenic easements. Screening is the private means of making a landscape permanent and is counterpart to the public means of stabilizing views. Discussions of screening the view from the house in fact peak in the years just before such legal protection of views was extended to residential neighborhoods.[5]

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3. HHFA, *op.cit.*, 20.

4. *Ibid.*, 22.

5. Private exterior landscapes were of course aesthetically regulated much earlier by convenants and zoning. See *The Zoned American* and *Privatopia*, cited above. The seminal moment in the legal acceptance of visual aesthetics in the United States is the 1954 Supreme Court decision in the case of Berman v. Parker. Justice William O. Douglas wrote: "The concept of the public welfare is broad and inclusive... The values it represents are spiritual and physical, esthetic as well as monetary. It is within the power of the legislature to determine that the community should be beautiful as well as healthy, spacious as well as clean, well balanced as well as carefully patrolled." By the 1960s, this thinking was specifically extended to residential

Whatever particular form screening took, it always respected a distinction between the natural and the human landscape. The bad view was dominated by signs of community and human occupation; the good view was populated mostly by vegetable matter.[6] Anything that foregrounded work, like tools or outdoor spots dedicated to domestic chores, would not be favored with visibility. Accordingly, the HHFA advised homeowners to screen from view "places for various outdoor jobs, or for storing miscellaneous articles that need to be hidden." Labor was crossed out of the picture while the fruits of labor, or anything that might be regarded as the product of spontaneous growth, were displayed.[7] Primarily considering suburban sites, the agency allowed that, "to be good, an outlook doesn't have to be a distant view; it can be a nearby flower bed, a lawn, a group of trees, etc." As the accompanying illustration made crystal clear, the view

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areas. Courts found it acceptable "...to proscribe conduct which is unnecessarily offensive to the visual sensitivities of the `average person.'" In this case, People v. Stover, tried in 1963 in New York State, not only was the visual field adjudicated in terms entirely consonant with those appearing in the prior decade's discussions of house design. (Indeed, the action from which the case proceeded began in 1956 when "defendants placed a clothesline, filled with old clothes and rags, in the front yard of their home as a form of 'peaceful protest' against the high taxes imposed by the city. During each of the five succeeding years, defendants added another clothesline." The People of the State of New York, v. Marion A. Stover and Webster Stover, Court of Appeals of New York, 12 N.Y.2d 462; 191 N.E.2d 272; 240 N.Y.S.2d 734). The substitution of "average person" in this case for the much more established legal concept of `reasonable person' also parallels terminology common in architectural circles. It registers, moreover, a distinction between the the subjective basis of aesthetic judgement and the ideally higher standards of reason or critical judgement, upon which the law is thought to rest. At any rate, a visual sensitivity promoted in part by familiarity with aestheticized views had become part of the legal landscape. See Christopher Tunnard, *A World with a View. An Inquiry into the Nature of Scenic Values* (New Haven: Yale University Press, 1978); John Costonis, "Law and Aesthetics: A critique and a reformulation of the dilemmas," *Michigan Law Review* 80:355 (January 1982), especially pp. 361-380; Richard Smardon "Community Control vs. the Elitist Landscape" in Paul Groth, ed. *Vision, Culture, and Landscape*, Berkeley Sumposium on Cultural Landscape Interpretation (Berkeley: Department of Landscape Architecture, University of California, Berkeley, 1990); Richard Smardon and James Karp, *The Legal Landscape* (New York: Van Nostrand, 1993).

6. Uvedale Price's definition of "ugly" is nearly opposite in character: it involves "*want* of form, that unshapen lumpish appearance." Rather than a separation between the natural and the man-made, Price required some measure of concious shaping of the landscape. *Essays on the Picturesque*, [1796] (London: Mauman, 1810) 188.

7. That a well-cultivated landscape may be read as "natural" is a crucial point here. Since, "artifice is the means, not the end," it is often cheerfully overlooked. David Lowenthal makes this argument in *Landscape*, (Winter 1962) 20-21 and it is also central to Albert Borgmann's "device paradigm" described in his *Technology and the Character of Contemporary Life. A Philosophical Inquiry*, and discussed in an earlier chapter.

should focus on nature and not the workaday world of the community. The gasoline stations that fueled suburban expansion were not part of the picture of the ideal suburb.[8]

More than the signs of human occupation, the most objectionable objects in the landscape were actual people. Nothing was more distressing while looking out over the view than to find someone else was looking in. The most difficult problem regarding ever larger glass walls, as it turned out, was not the size of the opening or the mitigation of more volatile heat gain or loss. It was, rather, the threat to privacy. "When you introduce any sort of large glass area you may want to screen your property with landscaping or fences to keep your privacy intact," was simply considered common sense.[9] Too much glass resulted in the "Goldfish Bowl Effect," which, though an appropriately middle-class caricature, nevertheless reflected real anxieties over diminished privacy. But it was, architects repeated, entirely avoidable. Screening was the way to circumvent the compromises with privacy that window walls were prone to. Much of *House Beautiful*'s January 1950 issue was dedicated to screening and included articles entitled "Good Living is Not Public Living," "How to Use Plants as Screens," and "How to Make the Neighbors Disappear." Nelson and Wright, too, offered many examples of "houses in built-up areas which

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8. This distinction repeats those made in eighteenth-century England as well as in nineteenth-century America, where figures such as Olmsted revised Picturesque practices for city parks and suburban settings. In both cases, naturalistic scenery was a landscape, as Raymond Williams writes, "organised for consumption--the view, the ordered proprietary repose, the prospect"--while rectilinear form was the visible order of the built world and associated with production. They are, "related parts of the same process," nevertheless, and only "superficially opposed in taste." The profession of landscape architecture took off not only with the increased call for urban parks but with increased attention to landscaping for small houses. Smaller, suburban sites, soaked in the rhetoric of restitution from urban stresses, became an important focus for the new profession. Arrangement of views through careful screening was a key strategy: "the truly artistic [landscape] plan will be so executed as to bring into prominence general views and specific objects which enhance the beauty of the place, while care will be taken to screen, as far as possible, the objectionable and unimposing." J.Franklin Meehan, "The suburban lot and how to plant it," *Indoors and Out. A monthly magazine devoted to the beautifying of America chiefly by means of architecture and the arts allied to it.* III:4 Boston, (January 1907) 192. See also, Stephen Daniels "Humphrey Repton and the Morality of Landscape" in *Valued Environments*, Gold and Burgess, eds., (London: Allen and Unwin, 1982) 124-44. Daniels reports that in his "Red Book" for Attingham (1833), Repton rejected not the fact of labor but the visual "union . . of beauty and profit, of laborious exertion and pleasurable recreation."

9. Samuel Paul and Robert Stone, *The Complete Book of Home Modernizing* (New York: H.S.Stuttman, 1953) 29.

have used enormous glass surfaces with, if anything, even more privacy than the conventional house usually gets." Small house designers had simply to make the question, "How can you have big windows and still retain a little privacy?" central to their work. Glass walls and careful screening were the architectural couplet that satisfied the paired desires for "outlook and privacy." While such desires seemed to imply designs nearly antithetical in nature--one based on exposure, the other on enclosure--the amalgam resulted in one of the more flexible architectural features of its time. Screening was thus seen as a strength of the glass wall, not evidence of a shortcoming; it revealed "one of the biggest advantages of the true window-wall: big windows are the only kind that can be made large *and* small as you see fit."[10] Screening was the way that big windows were themselves fit onto suburban sites.

Screening was important because it allowed the view to appear broad. Frequent use of the adjective "unobstructed" suggests that views were best conceived as sweeps of vision. An acceptable view could certainly have an end, but it could not have an impediment. "Give full value to view," advised the Small Homes Council in 1947. "Keep good views open. Screen out what you don't like. Often a bush or two will provide all the screening that is necessary."[11] This explains in part the popular belief that Americans do not like fences: they look too much like limits. Fencing was actually often proposed as a solution to neighbors who were too interested in the new glass wall on the block. But this solution was usually reserved for particularly cramped sites. In nearly all instances though, plantings were advised to ameliorate an otherwise stark insistence on the typically rectilinear boundaries of the site. Indeed, in one example of a planted screen, *House Beautiful* advised using "bold curves" rather than shallow ones, which create only "feeble variations on the rectangular lines of the back yard." The ambition was to suggest a sense of continuity with a natural landscape and not with a platted suburban one. As *House Beautiful* put it, the goal was to "give a sense of great spaciousness," even though in this case the yard was

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10. Nelson and Wright, *op. cit.* 174. See also, Robert Woods Kennedy, *The House and the Art of its Design*, (New York: Reinhold, 1953) 480.

11. S. White, "Fundametals of Land Design," University of Illinois Bulletin 44:55, Small Homes Council circular series B3.0 (12 May 1947) 3.

50' x 40'.[12] Screening was at all times intended to assure there would be nothing to detract from a reverie of nature.

As a common practice, screening reveals and reinforces a cultural dichotomy. In the conceptual pairing of glass wall and screening that was necessary to create a view, natural objects are framed while manmade objects, including property lines, are screened. The manmade world is itself the object of great conceptual energy, but only in terms of escaping it. It is aberrant and erratic but fortunately, it is spatially spotty: it can be corrected or selectively erased. In this sense, the manmade world is itself an imperfect screen, obscuring the face of nature. As stages in the composition of a view, "to frame" and "to screen" may be reasonably distinguished along this dimension: whether the objects that receive the action of the verb end up visible or invisible. Framing remains committed to the relation of some elements to a boundary, that is, with the organization of what is seen to the limits of the seen. Screening, on the other hand, focuses directly on what will end up out-of-bounds, with keeping elements out of the picture. Screening is more a matter of visually suppressing an object than restricting beyond the limits of the visual field. Both framing and screening, however, rely on a prior categorization of the objects for view in terms of manmade and natural. The results of this prior stage were usually less the products of architectural analysis than the foregone conclusions of cultural consensus. They were categories established outside of architecture but which not only became manifest in architecture, they even validated it. More succintly, architecture is one of the ways society may assert its distinctions between things natural and manmade.

What is learned of such distinctions from the discourse of the view is that the space of nature was considered to be continuous, while the reach of the manmade world was, mercifully, limited. Continuity with nature has been a constant longing throughout discussions of the suburban landscape, but, as argued here, sometime in the twentieth century, the abstract space conjectured by modern architects merged with that of nature to create an "immeasurable" nature that flowed

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12. John Grant, "How to Use Plants as Screens," *House Beautiful* 92:1 (January 1950) 55.

between the both of them.[13] The Museum of Modern Art offered in 1946 a typical formulation: "Scarcely interrupted by the great areas of glass, inner space seems to flow on outdoors to fuse with the immeasurable space of nature."[14] [Fig. 9.2] In discussions of the view in many popular periodicals, elements of screening, like shrubs that hid household infrastructue, were intended to smooth over those discontinuities in the preferred visual environment. [Fig. 9.3] The private house, after all, was usually imagined as a built moment in an otherwise green and unending world; it was not idealized as a grassy patch trapped within a unbroken grid of roadways, wires, pipes, gas tanks, and nosy neighbors. From the indoor-outdoor garden, to the shrubberies hiding the tool shed, to the trees in front of the neighbor's roof, and on to the wide blue sky beyond, screening created a continuous green corridor that was safe for this suburban vision.[15]

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13. As Alan Colquhoun outlines the modern conception of space, it is the matrix in which all form, as he put it, occurs. "Henceforth architects would think of space as something preexistent and unlimited, giving a new value to ideas of continuity, transparency, and indeterminacy." In "On Modern and Postmodern Space," *Architecture Criticism Ideology* (Princeton: Princeton Architectural Press, 1985) 105.

    If a sense of unlimited extent existed anywhere before this, it was in regard to views. As Loudon wrote: "A deep view includes a greater number of objects, and, consequently, admits of a greater variety of effect of light and shade; it increases our ideas of extent, and, by concealing more from the eye than can be done in a confined view, it gives a greater exercise to the imagination. Add to this, that, in a small place, depth of view is not expected; and, consequently, when it does occur, its effect is the more striking, by the surprise it occasions, as well as by its contrast with the other views, which must necessarily be very limited." In this case however, "ideas of extent" are produced by picturesque traits of variety, complexity, contrast, and surprise, as opposed to being presumed as "preexistent and ulimited." In Loudon, *The Suburban Gardener* (1838) 154.

14. Miller, Margaret, ed. *What is Modern Architecture?* (New York: Museum of Modern Art, 1946). Perhaps views of nature were themselves merely a subset of the larger theme of continuity that was so evident in modern domestic architecture of this period. Continuity between inside and out was in fact established in numerous ways: activities once restricted to the indoors were brought outdoors, such as the barbeque grill, which made cooking safe for men; conversely, language of the exterior landscape migrated indoors: routine circulation in the home was described in terms of "paths" or even "traffic," and advice was given on how to avoid "bottlenecks" and increase circulation efficiency.

15. Like "nature," continuity is a theme cast broadly enough to be evident in nearly any period of architectural history, and thus must be examined in terms of the specific ways in which it is pursued in building. Wright's work at Fallingwater, for instance, may be interpreted as an extensively pursued study of continuities with nature. Although architectural elements like the indoor-outdoor garden interpret continuity at a much more literal level, they may nevertheless be understood within this larger framework of continuity. This, in turn, broadens the significance of such design features and indicates an operative system of values if not exactly a well-articulated world-view.

Phenomenal Concealment, or An Aesthetics of Distance

Creating views from inside to out was clearly one of the most important strategies for creating a continuity with nature.[16] Few would have disagreed with the advice that views and privacy be considered when making decisions on window placement. At some moments however, vistas become the organizing principle of a house. In an article entitled "Interior Space Ordered for Exterior Vistas," for example, a Neutra project in Westport, CT was described as a "fusion of site into the architectural scheme -- the spatial plan of the house".[17] [Fig. 9.4, 1.10-1.16] The inside was a continuation of the flow of landscape and the entire plan was eventually enthralled by the view. The interior was in a sense simply a particularly comfortable moment along a spatial continuum. The glass wall was less a plane awaiting the architect's creative attentions, as Hitchcock and Johnson had written in 1932, than it was the one visible cross-section of a spatial axis that led out of the sometimes small house and directly out to the horizon. The reason the glass wall was seen more often as a connection rather than a barrier, is because it embodied this spatial axis in a material that was itself so beguilingly like the space modern architects had postulated.

If as stated above, the glass wall "worked" when it had a view, the view itself only worked when it gathered momentum from this outward-pointing spatial axis. In a word, views were supposed to be "centrifugal," they directed the eye outward. Rosalind Krauss uses this term when she considers the use of grids in modern painting as a means of thematizing the autonomy of an artwork or its continuity with a larger world. A grid may appear centrifugal when it "operates from the work of art outward, compelling our acknowledgement of a world beyond the frame." In contrast, a centripetal grid emphasizes its boundaries and separateness from a larger world. Krauss likens the "theoretical continuation of art with the world" to the common experience of "looking at a landscape through a window, the frame of the window arbitrarily truncating our

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16. Theoriticians have argued that vision *per se* is overlord of the continuous point of view. With a steady light, even the most jarring objects are connected. Adjacent opposites can come to make visual if not intellectual sense; MTV depends on this. In any case, some feature of a view of a garden or of nature seems to have allowed it to ride roughshod over other aspects.

17. *Progressive Architecture* XXXIX (May 1958) 118-21.

view but never our certainty that the landscape continues beyond the limits of what we can, at that moment, see."[18] Drawing from Krauss's line of reasoning helps to explain how a carefully screened view could imply continuity of the landscape: by all appearances, the landscape stops because the glass was simply not large enough to capture it all; were there no walls, the landscape would continue on uninterrupted. The end of the landscape appears to be an arbitrary situation created by the wall rather than a necessary condition due to an immediately adjoining property.

While Krauss's analogy to the window is apt, the situation alters when the window itself is the object of analysis, that is, when the third dimension is given rather than implied. When Robert Woods Kennedy discussed the arbitrary nature of the window frame, he employed the same terms in precisely the opposite manner. An object in the landscape that implied strong horizontal movement should not, he thought, appear parallel with the frame of the window. In Kennedy's example, a window frame parallel with a river "creates a movemented and centrifugal picture, which must necessarily be cut off arbitrarily, and thus questionably, at each side." The scene tends to expand in breadth, while the window, by having an edge, will seemingly hinder that expansion. In such a situation, the window should instead be framed at an angle, so that the object is at a diagonal and the resulting visual movement is directed toward the viewer. This, Kennedy wrote, "may create a focused and centripetal effect; and thus a more satisfying picture."[19] Kennedy's use of the the terms centrifugal and centripetal appear at first to be more pictorial than Krauss's, which has an ontological overtone.[20] His usage makes architectural, or more precisely, three-dimensional sense when one considers it not in relation to a picture plane intersecting the axis of vision but in terms of reinforcing the axis of vision from house out to landscape. In this sense, there would be no arbitrary cut-off since the view crosses the threshhold

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18. "Grids," *The Originality of the Avant-Garde and Other Modernist Myths* (Cambridge, MA: MIT Press, 1985) 18-19.

19. Kennedy, *op.cit.*, 475. Kennedy's point that arbitrariness in the design of windows are detected with regard to the landscape has intriguing implications for questions of the autonomy of architectural objects.

20. Kennedy says as much: "The manner in which the picture plane, the usual view point, and the elements of the view itself are related is deep in the realm of artistry." *Ibid.*

and enters the house.[21] [Fig. 9.5] Kennedy's centripetal view is another way of restating the cliche of "bringing the outdoors indoors."

It is in this sense of a spatial continuum, of which the home is a part, that Kennedy's use of centrifugal does not conflict with my claim above regarding the view as centrifugal. As long as it is the landscape coming in, the view can be centripetal; when attention is directed to the abrogation of limits, then the view is centrifugal. In fact, views were described and valued in both ways. The view implied a reciprocal relationship between the house and nature, since both were located within a modernist conception of expanding space. In its series of publications designed to educate an American public in the aesthetics of modernism, the Museum of Modern Art defined the new dwelling in just these reciprocal terms: "Living space extends into the garden and walls of glass bring the view into the house."[22] Or, in real estate appraiser Leonard Cowley's remarkable phrase: "*View* is the outdoors looking in."[23]

Various materials and building elements, including ceiling, floor, and wall planes, routinely extended past the enclosure and established thereby a literal continuity between inside and out. The neologism "interiorization" has been used here to describe another whole set of ways that the "effects" of landscape were reproduced within the house. Enormous effort was expended in providing modern houses with images of landscape, not the least of which includes locating such houses in suburban or exurban locations. However, the objective existence of the scope and character of that landscape was often of less interest than how it appeared, particularly at the house's interior. Indeed, as argued in the preceding discussion of spaciousness, illusionism was

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21. Having the hidden axes in the view completely perpendicular would be overbearing, however. Too often, the fault of "the picture window" was that it was placed either rigidly parallel or perpendicular to the composition. *Ibid.*

22. Elizabeth Mock, *Built in USA* (New York: MOMA, 1945) 22.

23. Cowley, *Appraisal Journal* (April 1951) 240. The reciprocal functioning of the view recalls the topos of the echo, especially in pastoral literature. In Leo Marx's words: The echo, a recurrent device in pastoral, is another metaphor of reciprocity." As an intimate relation "between man and not-man," both devices may lend a "metaphysical aspect" to their usage. *The Machine in the Garden* (New York: Oxford University Press, 1964) 23.

explicit. Besides those elements that are literally continuous with the outdoors, then, the entire discourse of the view points toward a phenomenological reading of the modern house as a kind of "coming-to-presence" of landscape. In nearly every instance cited throughout this dissertation, photographs and discussions of the landscape were employed to commend the architecture. They usually described how a house *should* appear, using relations with landscape to guide perception of architecture. "Visual re-education" was frequently an explicit goal.[24] In other words, the modern discourse of the view aimed directly at the creation of a visual environment. It constituted what might be called a normative phenomenology.

Rather than concluding this dissertation with a description of the idealized object that lay behind this set of visual experiences, I would like to address the visual experiences themselves. My concern in the next few pages thus has to do less with the artistic coordination of architectural forms than with the creation of an environment of perceptual coherence. This involves not only the presence of greenery and reminders of nature. Stated as simply as possible, it involves as well the production of "distance effects."

In visual terms, perception of distance is generated by a limited number of perceptual cues. These include the familiar ones of diminution and overlapping planes or occlusion. Other perceptual cues to distance include: abstraction or the loss of detail or information; decline in the density or texture gradient, or the visual flattening of texture with increasing distance; aerial perspective, or the hazy effect created by seeing through many degrees of atmosphere; a decline in stereopsis or the depth information gained by binocular vision, which is most useful for nearby objects; related to this is a corresponding decline in the role of bodily movement in obtaining different viewpoints

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24. This was how *Architectural Review* attempted to explain its first fifty years of publication. Interestingly, the editors believed that painters were "the top visual professionals," something they learned from Uvedale Price. Still, the architect created the visual environment of everyday life and was thus destined to serve as "the master co-ordinator" for the masses. In "The Second Half Century," *Architectural Review* (January 1947) 21-26.

and thereby recreating the conditions of binocular movement, most apparent in the sorts of triangulation used to measure mountain peaks.[25]

With this in mind, the modern house may be read as a device to increase the visual cues for distance. [Figs. 9.6-9.15, 8.17] Smooth surfaces not only can reflect the out-of-doors, they can reproduce the texture gradient of distance; by reducing the number and complexity of details, architects reproduced the abstracting effect of distance. Adding texture makes an object appear, by contrast, to be much closer: the most pronounced texture in modern houses was nearly always related to the hearth, intended to promoted the sense of intimacy and, as discussed above, frequently conceived in contrast with a view. Extended wall and ceiling planes not only make a literal continuity between inside and out but also heighten the effects of diminuition, much more so than if walls remained strictly inside. Low partitions rather than floor-to-ceiling walls allow the gaze to travel unimpeded, as it might out in the open. Changes in level can mark territories, also without slowing the eye. Interior uses of glass in transoms or between certain rooms further encourage visual mobility, as in the nearly ubiquitous kitchen "pass-thru." In short, something of the freedom of the highway is recreated in visual channels of unimpeded movement; the entire contemporary landscape--"the six lane highway, the aerial perspective, the clean and spacious countrysides of great distances and no detail"--are internalized and replicated throughout the modern house.[26] This is in keeping not only with the primary literature, which values the distant view above all others and, although only occasionally explicit, should have become apparent through all the foregoing citations. It is also in keeping with the view's function as a kind of

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25. James Jerome Gibson, *The Perception of the Visual World* (Westport, CT: Greenwoood Press, 1950) 3, 27, and "Pictures, Perspective, and Perception," *Daedelus* (1960); Russell and Karen DeValois, *Spatial Vision*, Oxford Psychological Series 14 (Oxford: Oxford University Press, 1988); M.H. Pirenne, *Vision and the Eye* (London: Chapman & Hall, 1948) 161ff.; Thomas Cornsweet, *Visual Perception* (New York: Academic Press, 1970).

26. From J.B. Jackson's description in "Ghosts at the Door," *Landscape* I:2 (Autumn 1951).

everyday sublime, where an experience of distance had been related to the sublime since it was first defined.[27]

However successfully it was acheived, it suggests that behind these efforts was a drive toward distant vision, or hyperopia. In turn, this suggests that the whole house might be considered, in a speculative mood, as itself an optical instrument for reproducing a sense of distance, to coin another term, a "teletrope," a device for "making distant." Rather than an object to be looked at, the modern house was something to be looked past. It is in this way that it could come to characterize the experience of landscape in the twentieth century: "The ultimate definition of landscape will probably be: the distant objects which are seen through a picture window. For it is distance, a remote and autonomous nature, that the picture window is intended to frame."[28] The argument here is that the frame as well--the house--offered visual cues for the perception of distance.

The physiological mechanisms involved were, to my knowledge, specified only by Neutra, but he was startlingly clear in this regard. For Neutra, the architect wielded "the tools of sensory and cerebral stimulation professionally." By manipulating physiology, the architect was an "active conditioner of the race, . . . a *grower* of responses." Design decisions had therefore to be based on an understanding of "cortical responses" to perceptual stimuli.[29] He proposed as well a general psychological tendency : "Mental economy evidently favors what can be easily conceived,

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27. "Distance figures prominently in discourses on the sublime with regard not only to the sublimity of vastness but also tot he necessary distance between the observer and the object." In John Ogden, "From Spatial to Aesthetic Distance in the Eighteenth Century," Peter Kivy, ed., *Essays on the History of Aesthetics* (Rochester: University of Rochester Press, 1992) 257-274. Coming at it from a different direction, it was perhaps Heidegger's primary complaint that mankind had lost the sense of nearness in its ability to dwell, in "Building, Dwelling, Thinking," *Poetry Language Thought.*

28. "P.K.", book review for Christopher Tunnard's *Gardens in the Modern Landscape* (1950) in *Landscape*. Tunnard notes a withdrawal of humanity from both landscape painting and the garden evident in nineteenth century idyllic scenes. It connotes a deliberate withdrawal from nature in order that it may be contemplated from a distance.

29. In *Survival Through Design* (New York: Oxford University Press, 1954) 244. Aesthetic understanding was in this way a grade of knowledge about the world, not necessarily scientific, but amenable to scientific measurement.

visualized, memorized, and communicated," where "mental economy" seems to be an implicit reference to contemporary theories of Gestalt psychology. "The experience of apprehending or remembering something with ease is accompanied by a pleasurable feeling of lowered tension, and thus is cherished." By the same logic, bliss is the byproduct of expending "a minimum of neural energy."

The cortical response to smooth surfaces fell within this mental economy. To Neutra, visual mobility was a corollary to psychic ease:

> . . . we know that throughout history man has shown a certain preference for smooth and even surfaces. . . . Over an even surface, our tactile and our visual senses can move without abrupt changes in innervation, just as a skater glides over smooth ice. ... Without delving into these quasi-kinesthetic problems, we should like here only to point out that something of 'beauty' or 'pleasantness,' . . . is not beyond physiological testing."[30]

Humans internally measure muscular effort "involved in following a steady curve as a guideline, and that required for jumping in space from point to point." Modern forms, such as Neutra's own work, are here recommended because they're easy on people's eyes. Even the case for architectural transparency was argued on a physiological basis.[31] Indeed, Neutra recommended to architecture students that they read the works of perceptual psychologists such as Wilhelm Wundt.

In much of Neutra's best work, views out onto the landscape characterize the primary relation to nature. Rather than an ephemeral contemplative moment before the distant horizon, stunning views were strewn throughout the house and served as backdrop for the most banal of daily activities. [Fig. 9.16-9.17, 2.10-2.15] These views were central to his idea of "psychological spaciousness": "There is a natural gratification in feeling visually unimpeded. . . . A person may look at large view windows of a living room with their unobstructed panoramic possibilities" and

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30. *Ibid.*, 93.

31. *Ibid.*, 187.

feel free. Even mullions can subtly interfere with "freedom craved."[32] Indeed, Neutra directly contrasted the neurological pleasures of a distant view with visual impediments, which are always experienced close-up: "Our eyes relax and rejoice in sweeping over distant vistas. Eyes may get used to a disordered vicinity, always close-up, but we keep on suffering just the same, subconsciously. Overhead supply wires, telephone poles, looming or unsightly neighboring structures are the greatest offenders."[33] The solution to the staccato look of the near-at-hand was the smooth sweep of a distant view.[34]

Besides finding in the modern house perceptual cues to distance, there are as well cues that point toward a cognitive distance. This appears in one form from the discussion above regarding the concealment of technology as a prominent aesthetic strategy, as well as a cultural preference. As a lens, the modern house makes the material world distant; the technological ease of manipulation makes the particular qualities of materials matter less. The "device paradigm" introduced in the previous chapter makes the separation of technological cause and perceptual effect routine. The end toward which concealment was put was to diminish the sense of mediation before the spectacle of nature. "Nature" was heightened precisely because the frame, including the mechanical apparatus that provided, so to speak, a "somatic frame," was diminished. As the environmental aesthetician Arnold Berleant put it, "unlike its representations, nature does not

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32. *Ibid.*, 219.

33. In *Mystery and Reality of the Site*, *op.cit.*, 62.

34. Enough exposure to spectacular views will come to adapt the citizen to modern society, with the modern house being the cradle for the society of the spectacle. Forms of housing in general are thus likened by Neutra to "assimilation camps." Even the most industrially advanced populations are "being assimilated to different things all the time." (Interview with Richard Neutra in *Contact* (Johannesburg) vol.1, no.10, June 4, 1958. In UCLA: Richard Neutra Collection, box 330, clippings file.) Eventually, modern architecture will become imprinted on modern minds, "'I will not live in a glass house' may be the expression of a person who shudders to miss [traditional housing] ... But with a proper police department, with heating and cooling provisions of today, and under the impact of current home magazine illustrations, we may gradually become conditioned to an enclosure of glass ..." (*Survival*, *op.cit.*, 221.) Particularly in suburban locations, where simple economic logic argues against this strategy, "psychological means" were indispensable to make "the ever smaller spaces available demonstrably larger, through transparency, ... through interesting mirror effects." (Richard Neutra, "Psychology of Glass and Mirrors," UCLA: Richard Neutra Collection, box 162, file April...1932, 9/8/65.)

come framed".[35] The view could appear less of a visually and somatically edited representation of nature, the more the house and its workings disappeared.

Cognitive distance appears as well at another level. Attempts to present the house, at least from the interior, as being isolated in a landscape, reinforce a sense of detachment from surrounding homes. Successful or not, advice to screen out the neighbors and neighboring structures reveals that the idealized house is away from and not next to other houses. The intentional distance from neighbors was thought to compensate for the experience of anonymity, which was believed to be an urban condition. It was a designed alienation that was maintained, however, in the suburbs by the view, which has been described here as indulging a visual narrative of depopulation. Views functioned as a barrier by reinforcing the sense of separation from the city, just as physcial or linguistic barriers can make places seem further away. All are characterized by a general loss of information and are linked by the common experience that "communication decays with distance" from its source. Less information translates into greater perceived distance. Views were a way of stating that one was, finally, far from the dangers and anxiety-producing commotion of the city. In turn, emotional involvement declines with the perception of increasing distance, which makes the city seem that much further removed.[36]

This is not intended to argue that pleasing prospects are in any way inherently deceptive or, worse, morally wrong. It is meant to point out that views through windows are not simply found,

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35. Arnold Berleant, *The Aesthetics of Environment.* (Philadelphia: Temple University Press, 1992) 171.

36. Cognitive distance discussed in Peter Gould and Rodney White, *Mental Maps* (Baltimore: Penguin, 1974). Quote is from page 189. See also discussion, "Urban Consequences," in chapter 5 above.

This is distinct from the impact on the viewer evoked by earlier sorts of views. Kurt Forster notes, for instance, the role of spectators in Schinkel's urban panoramas. They are gesturing and visibly excited, one assumes, by the power of the grand scene before them. Forster is surely right in asserting that the delineated figures transmit some of the excitement an actual viewer would, or should feel. But he goes on to note that part of that excitement was attributable to a new form of knowledge about the city. "The preferred themes were historical events ... and the topography of famous towns", which helped generate the entire "tradition of urban *vedute* paintings". From the preoccupation with detail, Forster surmises an interest in a specific and built landscape and a new way of knowing it, a "desire for an instant visual grasp of complex rapports". Such urban panoramas were perhaps the closest intersection of the interests of mapmaker and painter. "Schinkel's Panoramic Planning of Central Berlin," *Modulus. The UVA Architectural Review*, 16, (1983) 68, 75.

they are made. They involve not only a process of editing scene, with larger windows they imply as well a scope of scene, which implies in turn a form of settlement. While suburban landscapes developed much earlier, glass walls revalidated them, since they worked best in relatively low density surroundings. Their continued advocay for use in denser postwar suburbs is the primary contradiction that makes them so interesting for historical study. Nearly five hundred years ago, Leon Battista Alberti began an explanation of his system of perspective to aspiring painters: "I describe a rectangle of whatever size I please, which I imagine to be an open window through which I view whatever is to be depicted there."[37] This dissertation has assumed that what is depicted through the open window is the result of choices and of resources directed toward fulfilling those choices.

Nor is this intended to claim that homeowners actually believed their houses to be bigger than they were, that they mistakenly purchased more furniture than they could accommodate or that they kept bumping into walls they misjudged to be further away. It is simply to say that the visual environment described within the discourse of the view is characterized by perceptions of distance. In his influential treatment of the subject, perceptual psychologist J.J. Gibson in fact distinguishes between the "visual world" we operate in, which is stable, boundless, and modelled in depth, and the "visual field," which, he wrote, is an "introspective or analytic phenomenon. One gets it only by trying to see the visual world in perspective and to see its colors as a painter does," in a sense, phenomenologically.[38] The visual world is tempered by such psychological reflexes as size constancy, whereby an object is assumed to remain the same size even though it is further away and appears smaller within the visual field. Yet, even the visual field, Gibson asserts, has meanings and is mediated. Vision is selective, "schematic," and learned even at a primitive level. This has become especially apparent with the new views afforded by technologies that extend or directly affect human vision. Gibson cites the groundless visual worlds of the microscope and the telescope as new realms ripe for fresh exercise of the visual faculties. He cites

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37. *On Painting*, trans. Cecil Grayson (New York: Penguin, 1991) 69.

38. Gibson, *The Perception of the Visual World*, *op.cit.*, 3, 27.

as well the non-representational art of modern painting and subscribes to Gyorgy Kepes's theory of a "language of vision" as a visual realm of significance that is at least partly independent of linguistic meaning.[39] Rather than taking a painter's perception of color as a unit in the language of vision, this chapter has tried to examine visual cues for distance, in Gibson's phrase, as one of the "abstract constituents of perception."

A Modern Way of Seeing

In a way, this reading of the modern house simply takes seriously the claim occasionally made in the history of modern art and architecture that it represented a new way of seeing.[40] Usually, this was the result of changes in technology and transportation. Machines, in short, altered perceptions; they introduced a new speed and a new scope to the visual environment. "Flying has changed the way we see and feel," was a common way of making this claim. This implied seeing in a larger scale, in larger patterns and with fewer details.[41] Along with airplanes, automobiles

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39. *Ibid.*, 202-203.

40. The primary and secondary literature on this point are both growing, as historians continue to assimilate new texts to a history of the modern way of seeing. Baudelaire's *flâneur* is usually taken as an early figure of modernism, and is often seen through the lens of Walter Benjamin in "Paris, Capital of the Nineteenth Century," and related thereby to the new uses of glass in arcades and department stores. John Berger offers a useful Benjamin-for-beginners with his *Ways of Seeing* (London: BBC, 1972), particularly with respect to art. Jonathan Crary looks at the history of how seeing was itself seen, especially in the natural sciences, in *Techniques of the Observer*. Aesthetic theory in the late-nineteenth century, such as that of Konrad Fiedler or Adolf Hildebrand, was in fact inflected by new theories of visual perception issued by perceptual psychologists. Karl Scheffler wrote that a modern way of seeing was due to the experiments of the Impressionists. (1907) 98. Literature of a cinematic way of seeing is enormous, but is usefully summarized in Anne Friedberg's *Window Shopping. Cinema and the Postmodern* (Berkeley: University of California Press, 1993). Perhaps the broadest survey is Stephen Kern's *The Culture of Time and Space* (Cambridge, MA: Harvard University Press).

41. Elizabeth Kassler (nee Mock) deduces from this point a new type of garden: "a view from above," which were "designed for spectators in a tall office building." This type of garden offered momentary visual respite from daily office work by subordinating details to a larger pattern that could be quickly grasped by the viewer. *Modern Gardens* (New York: Museum of Modern Art, 1964) 15-16. After Giedion described Ruskin as closing the blinds on the industrial age, he wrote: "we are no longer limited to seeing objects from the distances normal for earth-bound animals. The bird's-eye view has opened up to us whole new aspects of the world. Such new modes of perception carry with them new feelings which the artist must formulate." (Giedion, *Space, Time, Architecture*, *op.cit.*, 432. Jane Jacobs, on the other hand, felt that the long view brought with it its own set of problems: "If a person gives the long view precedence, with its connotations of repetition and infinity, then the close-up scene and the intensity it conveys seem superfluous

also revealed a new way of seeing the world. Cars facilitated tourism, itself a relatively new mode of perception, not only by allowing travel at fairly high speeds but also by putting the setting behind glass, even when one was in the midst of it. They created a sense of freedom and excitement that might, in the right artisitic hands, be recreated even within a domestic environment. While one might reasonably expect this connection to have been made by Giedion, it was earlier made by Charles Greene in 1915:"between the automobile mania and the bungalow bias, there seems to be a psychic affinity. They have developed side by side and they seem to be the expression of the same need and desire, to be free from the commonplace of convention. It is the growth of the germ of California's incentive, the mere joy of living, newly discovered."[42] The psychic affinity between driving and bungalows was seconded by a visual affinity, not in terms of a resemblance between house and car but in terms of the view out from them. [Fig. 9.18, 3.5-3.6] The greatest problem in this historiographic axiom was that artisitic practices had not kept pace with technology. Artistic practices, including architecture, were producing few objects suitable for the new vision.

Siegfried Giedion believed that an "optical revolution," which first clearly emerged around 1910, was beginning to heal the split between "advanced methods of thinking" and humanity's

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and offensive." In Jane Jacobs, *The Death and Life of Great American Cites* (New York: Vintage, 1961) 379.

In his own way, Robert Venturi finds postmodernism as a different way of seeing that is related to the increased speed with which we perceive the visual environment. He noted that "this architecture of styles and signs is antispatial; it is an architecture of communication over space; communication dominates space as an element in architecture and in the landscape." The distant view of a motel sign, "visible on the highway before the motel itself," enfeebles stereopsis, the usefulness of binocular parallax as an indicator of spatial relations. One more clue to spatial perception is thus disregarded. The space that is engendered primarily by the transmission of symbolic codes would, in fact, favor the hyperopic. It is not available for corporeal verification. In Venturi, et al. *Learning from Las Vegas* (19727) 8. Venturi may have simply elevated to theory the conceptual simplicity of the "splash feature--a single memorable feature of a house--from the previous decade.

The unfolding of the larger scale was already envisioned in the picturesque: "Once the architect got into the habit of regarding his designs as it were from a distance, and as a mere part of a picture, he was only too apt to scamp the 'close up'." In Christopher Hussey, *The Picturesque. Studies in a Point of View* [1927] (London: Frank Cass, 1967) 193.

42. Cited in "A New Appreciation of 'Greene and Greene,'" *Architectural Record* (103:5 (May 1948) 138. Giedion's vesion was: "The space-time feeling of our period can seldom be felt so keenly as when driving." In *Space, Time, Architecture*, *op.cit.*, 826.

"emotional background," a rift created in the prior century by rapid technological change. In his introduction to Gyorgy Kepes's *language of vision*, Giedion repeated his claim that a new conception of space and "the visual approach to reality" underlay various contemporary movements in modern art and related them to developments in modern science.[43] Kepes clarified this point with regard to architecture later in the same book. Nearly all disciplines, he wrote, from philosophy to photography are guided by modern ideas of interpenetration. In architecture this is more or less equal to ideas of transparency, a primary function of which is to integrate "the greatest possible number of spatial vistas. Inside and outside are in close relationship, and each viewpoint in the building offers the widest visible comprehension of space." Like the "three views" from one viewpoint discussed in the September 1954 issue of *House and Home*, Kepes thought that in the modern house architectural elements and optical effects "are carefully calculated and organized to focus divergent spatial vistas in one visual grasp."[44] [Fig. 9.19]

The reason for this, Kepes explained, is that individuals are inevitably limited in their relations with the world and one another by the operations of their "sensory equipment." This equipment hadn't kept up, however, with recent advances in science and technology, which had effectively remade the world. In terms of perception, he wrote, "technological practice has introduced a new, complex visual environment." To overcome the gap between old habits and new realities, we needed "the painters, sculptors, architects, photographers, advertising designers [who] teach us to see." New forms of representation could help individuals make sense of their changed

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43. Siegfried Giedion, "Art Means Reality," in Gyorgy Kepes, *language of vision* (Chicago: Paul Theobald, 1944) 6-7. Sheldon Cheney compared the unity of house and landscape with a nineteenth-century tendency toward demarcation: "In the first place, most people do not see big enough. What chiefly made nineteenth century art so sterile, so trivial, was the narrowed viewpoint. Detail was more absorbing than depth or spirit or impression. ... Let us widen the view, push out the horizon, orientate art to the new conception of the world as unit." In *New World Architecture* 378.

Compare also, Peter Collins regarding modernism's use of parallax, the displacement in the visual field caused by movement of the perceiver: "The aesthetic revolution which has occurred in architecture within the last century has consisted firstly in the reversal of the traditional method of exploiting parallax, and secondly in its extension by means of a greater use of cantilevers and glass." This reversal, Collins writes, is best seen in the work of Le Corbusier, which is what relates his work to the space-time representations of Cubism. In *Changing Ideals in Modern Architecture* [1965] (Montreal: McGill-Queen's University Press, 1973) 292.

44. Kepes, *op.cit.*, 77-9.

world. "Thus the control of nature includes the domestication of nature through the eye, the visual assimilation of space-time events. Visual images are tools for this progressive control of nature." Accordingly, a "domesticated" perspective could function as a visualization of modern "space-time events" brought down to household scale.[45] The century's signal achievements in science, in construction, in communications and transportation, both required and facilitated a pictorialization of nature.

In the process, something specific to architecture, at least to a prior century, was lost. The view, like a photograph, seemed so close an approximation of nature that it could serve as its substitute; an unobstructed view discouraged movement between the house and its setting. Indeed, this was a frequent enough complaint made of large areas of glass, they tempted one with an easier and ersatz nature. "If we get all the effect of the outside from the more or less close confines of the interior, there is less incentive to stir out of doors," wrote Charles Edward Hooper in 1913.[46] Later, Alfred Hopkins recalled that although his landscape window offered "a heavenly glimpse" of the outdoors, it was distressing "because the landscape window, while showing us the beauty and the coolness of the distant verdure, never let us feel its fresh zephyrs." The distressing part was that this separation of the senses was apparent only, as he noted, on particularly hot days. It was upsetting then to learn the limitations of the view. As a result, he advised architects to limit the view's presence at the interior: "If there *is* a view, those who wish to see it will enjoy going to see it. . . . Remember that human beings can walk about to see what they wish to see. Their bodies do not remain stationary. It is only their minds which sometimes indicate this lack of progress." It would be foolish "to reverse the wise and proper course of building, merely to be able to see from within what may be seen better from without."[47]

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45. *Ibid.* 66-7.

46. "Windows and Window Motives," in Charles Edward Hooper, *The Country House. A Practical Manual of the Planning and Construction of the American Country Home and its Surroundings* (Garden City: Doubleday, 1913) 104. This was also R.A. Briggs's complaint.

47. Alfred Hopkins, *Planning for Sunshine and Fresh Air* (New York: Architectural Book Publishing, 1931) 36-39.

Within a short time, however, bringing the view deep within the house seemed a wise course to follow. Frequent calls for an "undistorted view" express the desire for as direct a connection with nature as possible, an affirmation of nature's presence. Besides then bringing the outdoors indoors, a view could lend the outdoors ontological status. The success of such a transfer of meaning may be measured by the fact that views through modern glass walls were compared not with the view from the site prior to building, but instead with the distorted views available through the small windows of other styles. It may also be seen in owners' reactions to their views, which might substitute for going into nature. Regarding the house designed for him by John Johansen, for example, John Stillman said, "I have to remind myself to go for walks, as the outside view comes in so much that I don't feel the need to go out to see the countryside."[48] [Figs. 9.20-9.22] Big windows and fine views were one less reason to venture out of doors. Indeed, the Massachusetts State Housing Board believed in 1945 that views were particularly appropriate for the aged or infirm, who were typically sedentary.[49]

Private landscape views may therefore be compared with other optical innovations that led to a modern way of seeing and, in turn, deserve study in the history of those other mediations of vision, including photography and film. Besides altering vision, they shared certain qualities, at least to contemporary theorists, that made the visual experience of architecture akin to looking at photographs. A photograph is not an unreasonable thing with which to compare a view through a glass wall. At one level, views were certainly represented photographically and photographers worked hard to enhance such representations.[50] At a different level, the plane of glass, even if

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48. "New York House Has Trefoil Plan--Four Zones," *Architectural Record* 119:6 (Mid-May, 1956) 109-111.

49. The elderly's " habit of sitting at a window puts a premium on the orientation of buildings. Ideally, every apartment should face an interesting view, in a south or southwest direction. The court scheme is thus inappropriate for the elderly. It tends to preclude both good orientation and any view but of other houses inhabited by other elderly people." From "Views and Orientation," State Housing Board, "Housing for the Elderly: Standards of Design," (Boston: Massachusetts State Housing Board, March 1954) n.p. My thanks to Lawrence Vale for this reference.

50. See, for example, Cervin Robinson and Joel Herschman, *Architecture Transformed* (Cambridge, MA: MIT Press, 1987) and"'Glamourized Houses': Neutra, Photography, and the Kaufmann House," Simon Neidenthal *Journal of Architectural Education* 47, 2 (November 1993) 101-112.

operable, defined a picture plane, a datum complete, in terms of representation, unto itself. The view was satisfactory regardless of whether or not one moved into the landscape. Both view and photograph made of some part of the world a picture.

Indeed, Kepes's "one visual grasp" fits closely with the "simultaneous seeing" discussed by Moholy-Nagy as one of the "varieties of photographic vision." Descriptions of "magnified" or "undistorted" views also fit with his other photo-genetic categories of "intensified seeing" or "exact seeing." By creating a range of visual protheses, Moholy wrote, "technological advances almost amount to a psychological transformation of our vision"[51]. The goal of his book, he wrote in the foreword, was "an education of the senses,"which would overcome the gap preserved by the "almost" in the prior sentence.[52] Through new aesthetic practices in art and architecture, such a psychological transformation could eventually be complete. More recently, Susan Sontag, among others, has argued that "the habit of photographic seeing," or, "looking at reality as an array of potential photographs," does have profound psychological effects.[53] And, just as photography initiated the search for the photogenic, so the window began to wander across the wall in search of objects to frame.

Perhaps the most vivid illustration of the architect's contribution to photographic, or more generally, to modern vision was a 1952 spread in *House and Home* on Marcel Breuer: "A lot of Breuer houses look like cameras: rectangular boxes perched on a small stone base as if on a tripod, one large glass wall focused straight at the view."[54] The house was like a camera because, on the one hand, it was shaped like a large-format view camera and, on the other hand, it framed a picture of a larger world. Breuer himself distinguished "the house that sits on the ground and permits you to walk about the landscape at any point" and "the house on stilts, that is elevated

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51. Lazslo Moholy-Nagy, *Vision in Motion* (Chicago: Paul Theobald, 1947) 206-8.

52. *Ibid.* 5.

53. Susan Sontag, *On Photography* (New York: Farrar, Straus and Giroux, 1973) 97

54. *House and Home* (May 1952) 114.

above the landscape, almost like a camera on a tripod. This will give you a better view, almost a sensation of floating above the landscape, or of standing on the bridge of a ship. It gives you a feeling of liberation, a certain élan, a certain daring..."[55]
[Figs. 9.23-9.25. 6.6, 6.12, 7.13-7.14, 7.18-7.19, 8.7-8.8]

More than this, though, a Breuer house epitomized a thoroughly modern relationship with nature. "His houses are modern, civilized homes for modern civilized men." Precepts of modern architecture prohibited the imitation of nature but required proximity to nature. Breuer's work met these paired constraints by offering a detached view of nature: "His houses are observation posts from which to admire what no man can imitate." And Breuer, an "architect's architect," was representative of a modern architect's own point of view: "Breuer's attitude toward nature is that of an observer, of the man behind the camera: he likes to look at it." Like a scientist, Breuer observed nature. Like an artist, he framed it and, like a spectator, he enjoyed looking at it. Like science itself, a Breuer house was a product of the observation of nature. Technical amplifications of vision, such as microscopes, revealed new aspects of nature at the same time they obscured others. Glass walls and the technology associated with them, afforded year-long optical intimacy with nature by disengaging from the manifold of natural phenomena a view. For Breuer, as, I suppose, for many scientists, this sort of detachment was not only productive but appreciative, even reverent. "To Breuer, this aloofness is a very real way of paying your respects to the trees, the hills, the water and the changing skies."[56] As a design strategy, the article continued, "This disarmingly simple idea seldom fails."[57] House as camera, architect as photographer, landscape as picture: an analogy as simple as it is apt. Yet, therein dwells an entire philosophy of both architecture and nature.

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55. Breuer, *Sun and Shadow. Philosphy of an Architect*" (New York: Dodge, Mead, 1955) 40.

56. The faint funereal undertone of "paying your respects" suggests that, at some level, the view may function like a totem. As Freud discussed it, society erects a totem when it is ridden by guilt over loosing something foundational to it but that, nevertheless, had to be given up if the society was to grow. A totem commemorates and continues the loss by giving to its memory a material form. Or, as Proust put it, a "remembrance of a particular form is but regret for a particular moment." Proust cited by Stephen Kern, *op.cit.* 148.

57. *House and Home*, *op.cit.*

Toward Further Research

In the belief that the best work opens on to new questions, I'd like to describe briefly questions that have been raised here but that remain largely unaddressed. First is this final chapter, which I believe is suggestive but could well be extended in terms of formal analysis and also with a more consistent theoretical development and a deeper historical perspective. Related to this is the claim made directly above regarding private landscape views as part of the history of a modern way of seeing. This claim, I believe, could be greatly strengthened with more work and reveal that architecture shapes patterns of seeing, more so than occasional encounters with unique optical experiences, through which such histories have been written.

Another topic concerns the place of views in connection with frontier mythology in America. Even in the 1950's this mythology remained a touchstone for sociological studies of American character. Might views of a spreading and unpopulated landscape recapitulate popular impressions of American history and provide a visualization of themes of abundance or plenty? Certainly the common reference to owners of modern houses as "pioneers" suggests that, at some level, distant views could function as a privately-owned piece of national narrative.

The point was merely touched upon in chapter 2 that ideas of property have become increasingly abstracted from simple ownership of land. The view as a crystallization of such ideas is worthy, I believe, of much more investigation. Perhaps this might take the form of a more thorough history of scenic easements and a study of legal sources. The intent, again, would be to indicate how architecture is related to such change.

Regarding modern architecture more specifically, how was a discourse of views related to the postwar reformulation of modernism? No period of architecture, it seems, has been without its calls for renewal, but it was something of a growth industry in the late 1930's and 1940's. Previously, and diagrammatically, technical expression had been a necessary and a sufficient condition for architectural form. Later, technical expression was still necessary, but it was no longer sufficient to make architecture. Although conscious aesthetic manipulation of form was

never absent from those earlier discussions, it becomes prominent and more explicit later. Also pointed out earlier but not pursued in depth is the role of binary thinking in modernist designs as well as in theoretical writings. How necessary was this sort of thinking to the architectural production of the period? Answering such a question calls for a kind of intellectual history of modern design.

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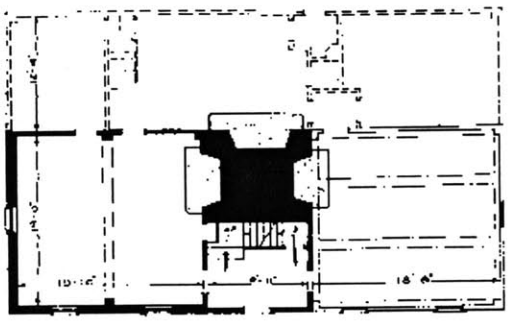


Figure 1.1:
Growth of house around central hearth, at Hempstead House, New London, beginning c.1643.

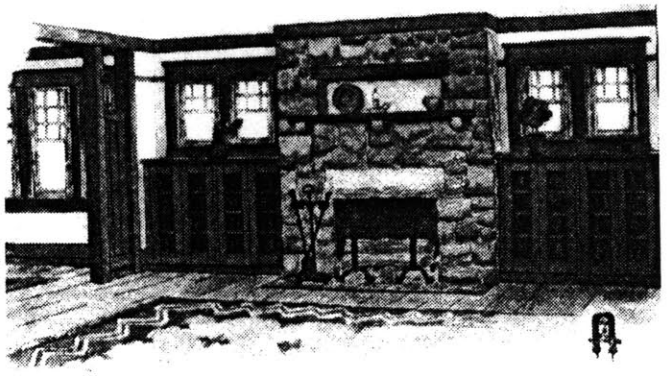


Figure 1.2:
Living room of "one of the most popular Craftsman house designs" of Gustav Stickley, 1909.

Figure 1.3:
"Bringing in the View"
"Whatever else may be said of post-war houses, they all seem to have one detail in common--bigger windows. This current architectural convention may vary from the generous window walls of the solar house to the one 'picture window' of the pseudo-Cape Cod cottage. In every case the intention is similar--to bring in more light and more of the view. But while the light will come in automatically, the view is apt to stay just where it is--outside the window--unless a specific attempt is made to bring it in."
New York Times Magazine, 30 March 1947.

Figure 1.4:
"Improving the Outlook":
"Huge windows through which you see vast reaches of the countryside all year round are assets that architects have been building into new homes and that can be readily adapted for old ones."
New York Times Magazine, 31 May 1942.

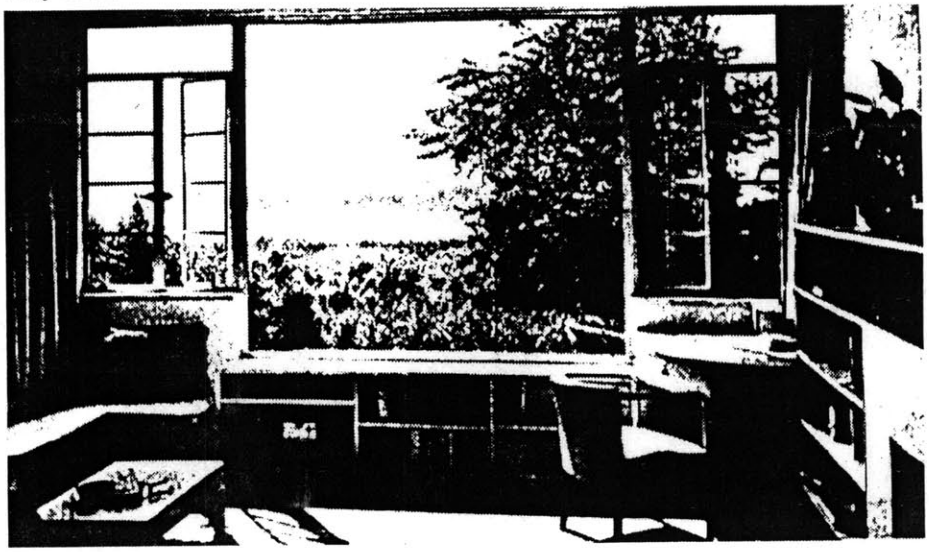


Figure 1.5:
"Some of the drama which large glass areas make possible is suggested. . .. "
Beach House, East Orange, New Jersey,
Vincent Kling, architect
(*Tomorrow's House*, 1945)

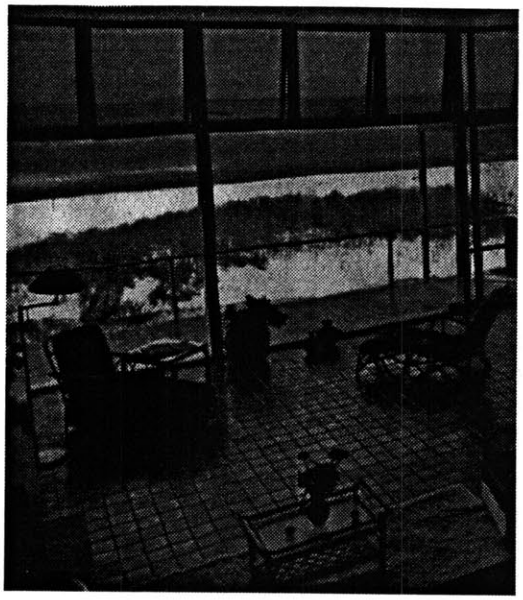


Figure 1.6:
"Site Chosen for View Despite Drawbacks"
Woman gazing through the 40' glass wall
at Poetker House, Cincinnati
Garriott, Becker & Bettman, architects.
(*82 Distinctive Houses*, 1952)

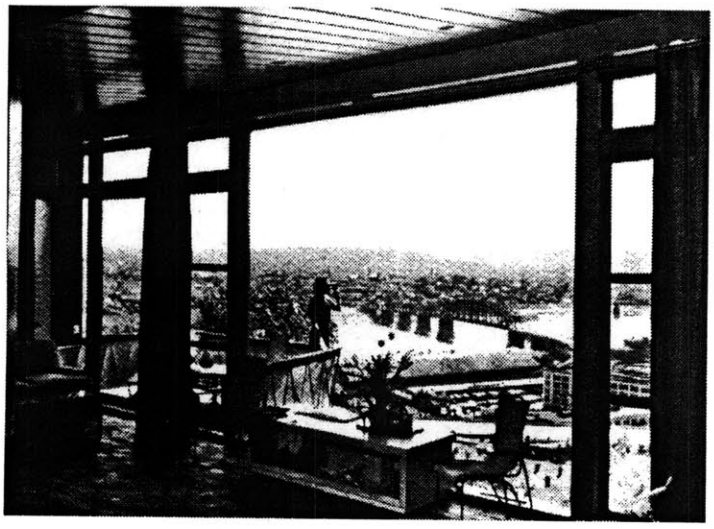
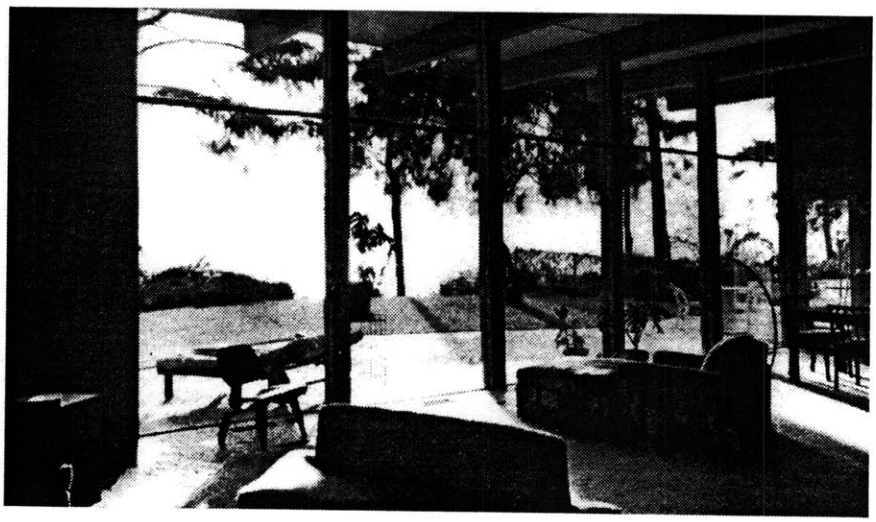
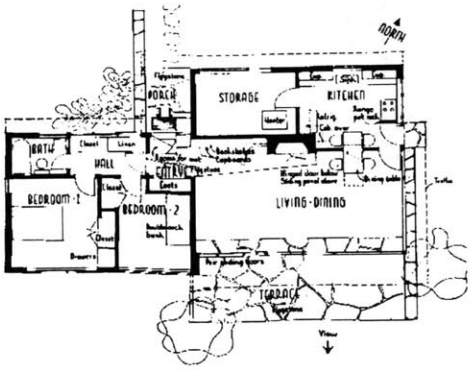
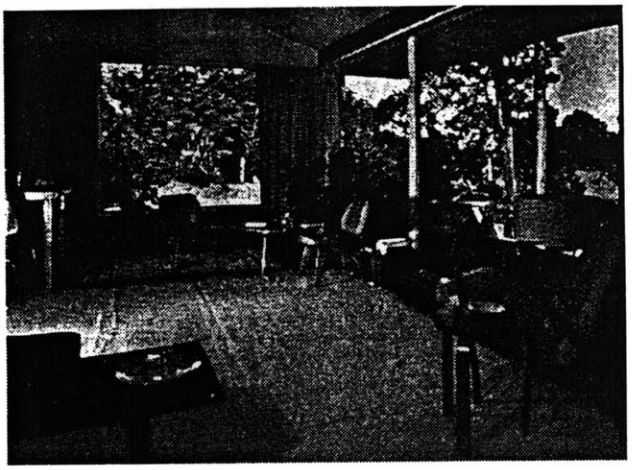


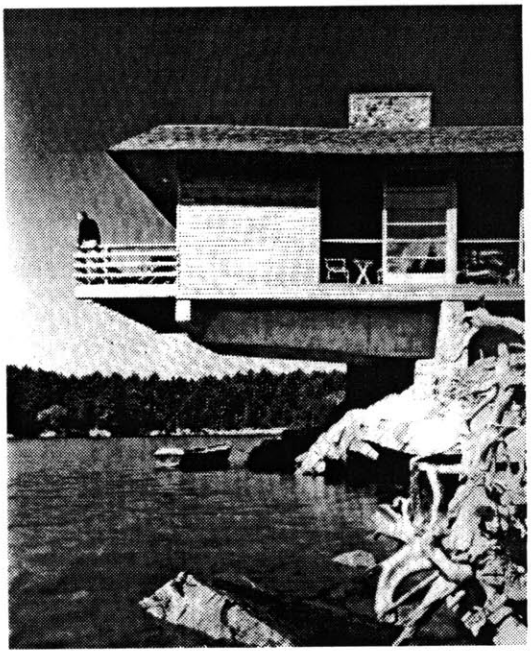
Figure 1.7:
"Whole house focuses on view."
Lehmann House, Seattle, WA
Roger Gotteland, architect
1952 AIA Award for best house in the state of Washington.
"A long narrow lot--and a memorable view."
(*Practical Houses for Contemporary Living*, 1953)



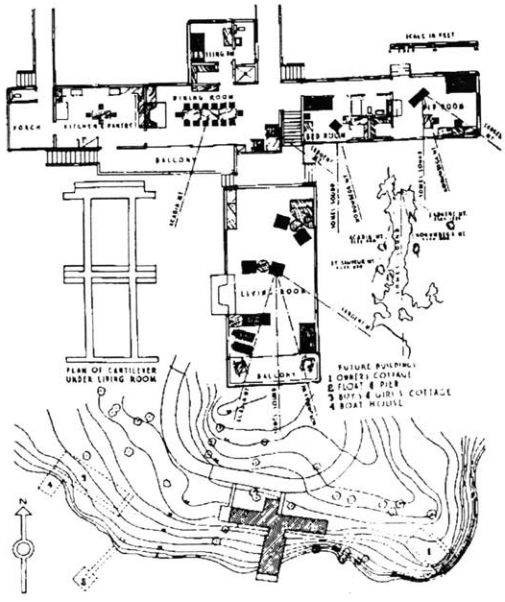


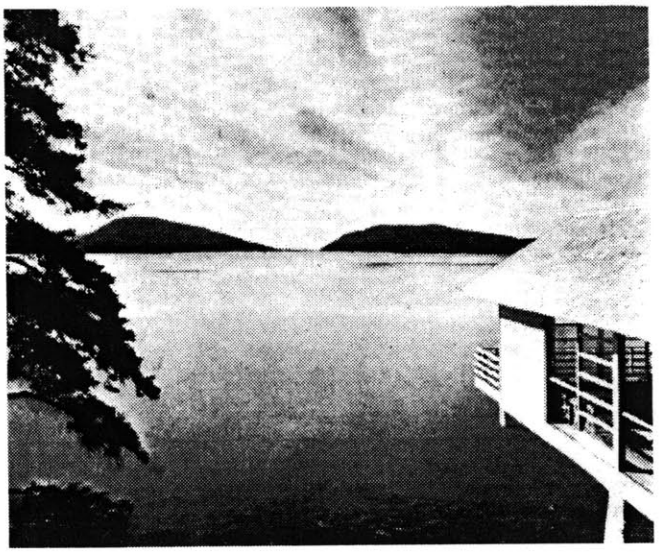


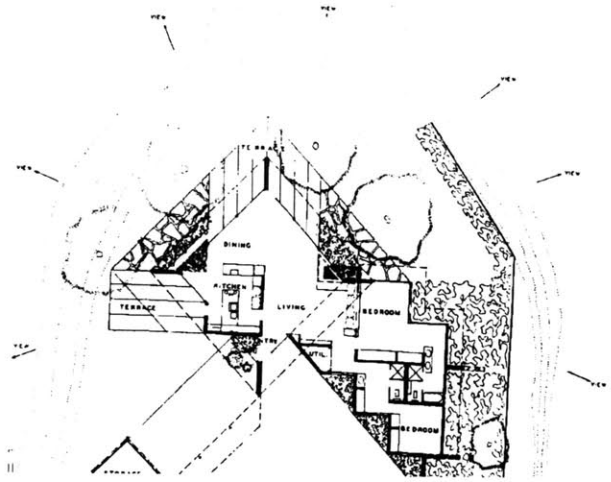
Figures 1.8 & 1.9:
"No cramped narrow outlook here"
Concrete Block House, New England
Plan and interior view
Carl Koch, architect
(*McCall's Book of Modern Houses*, 1951)

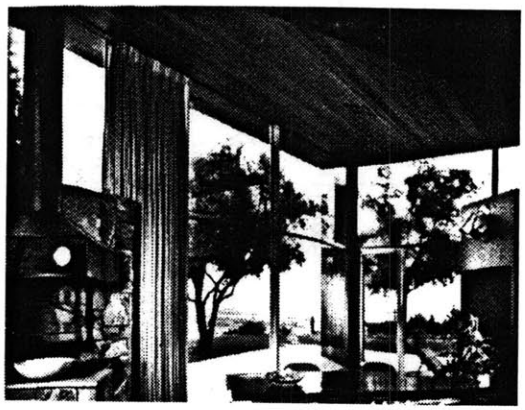


Figures 1.10, 1.11 & 1.12:
Thomas House, Mt. Desert, ME, 1939
George Howe, architect.
Plan indicates views from interior.
Raking side elevation emphasizes view
Side elevation depicts occupant in viewing position.









Figures 1.13 & 1.14:
"House with Four-Way View"
Ekdale Residence, Palos Verdes, CA
Plan and interior elevation with 1-1/2 views
Spaulding-Rex, architects
(*82 Distinctive Houses from Architectural Record*, 1952)

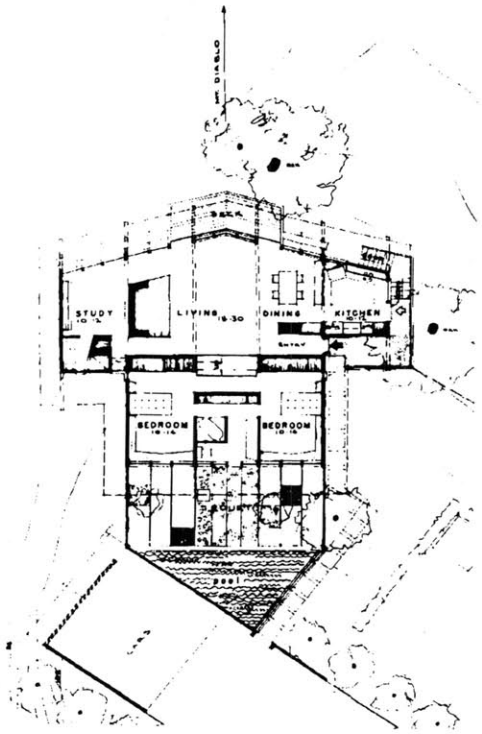
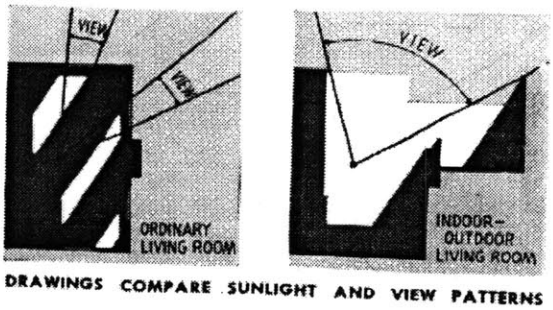


Figure 1.16:
"...dramatic view in one direction and a 'retreat' from the view in the other."
Ausenbaum/Parker House, Orinda, Ca.
Albert Henry Hill, architect.
(*Contemporary Houses*, 1961)

Figure 1.15:
Life magazine diagrams
the benefits of a glass wall, 1945.



DRAWINGS COMPARE SUNLIGHT AND VIEW PATTERNS

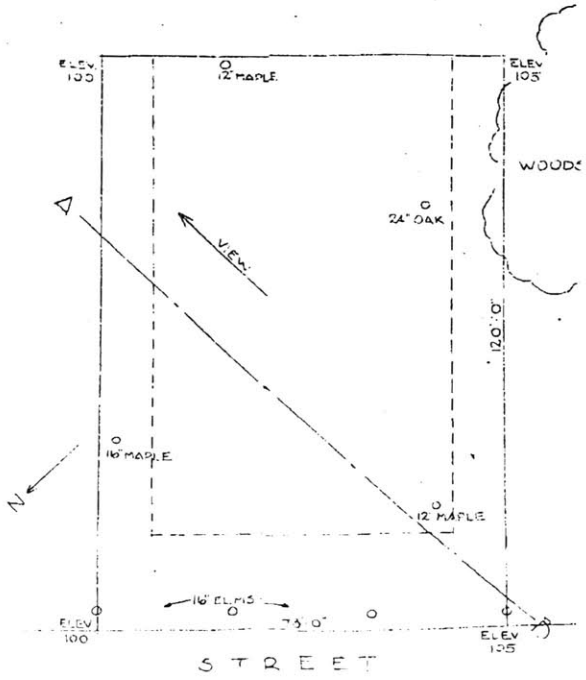
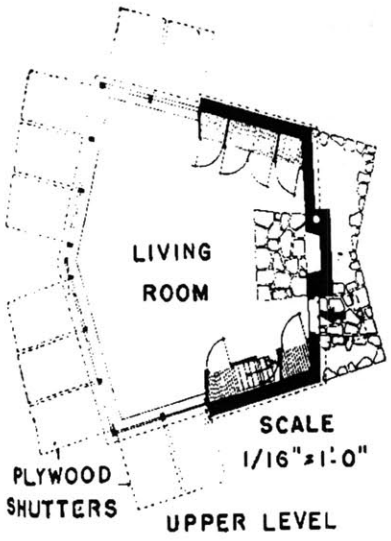


Figure 1.17: Teaching the view: "The line AB represents the position north of which rooms may not enjoy the distant view to the east because of intervening trees and buildings."
"House for a Professor," Design Problem,
Department of Architecture, M.I.T., 1946.



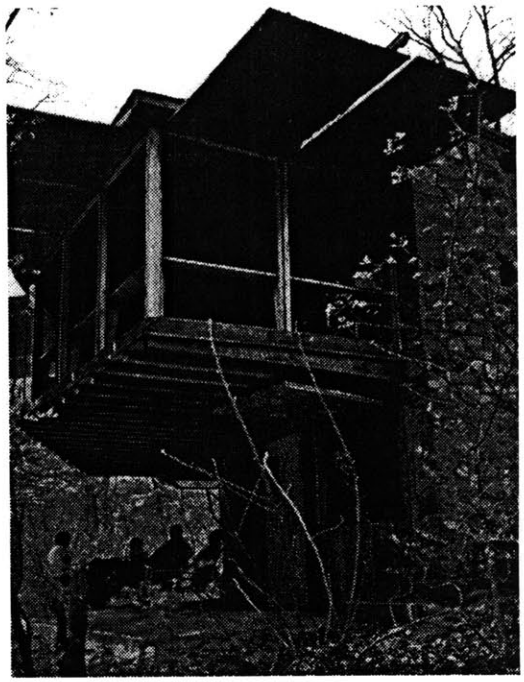


Figure 1.19 & 1.20:
House composed of hearth and glass wall, which cantilevers out into the view. Materials reinforce contrasting sense of anchoring and visual reach.
Weekend House, Jefferson County, MO.
Plan and exterior view.
Harris Armstrong, architect
(*The American House Today*, 1951)

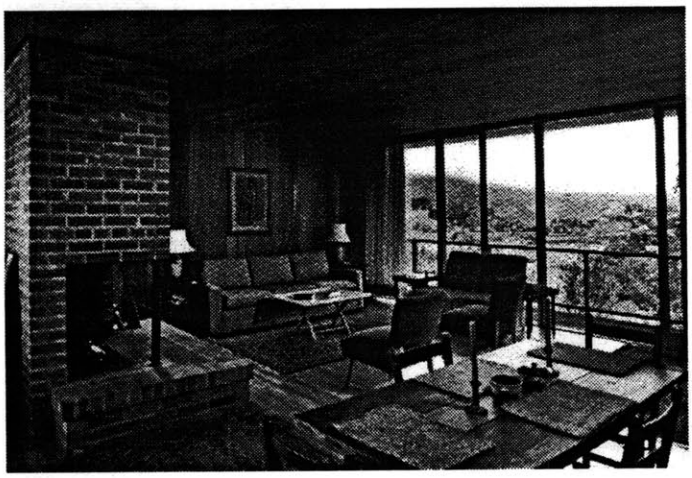


Figure 1.18:
Fireplace anchors intimacy while rest of house opens to the view.
Kirby House, Belvedere, Ca.
John Funk, architect.
(*The American House Today*, 1951)

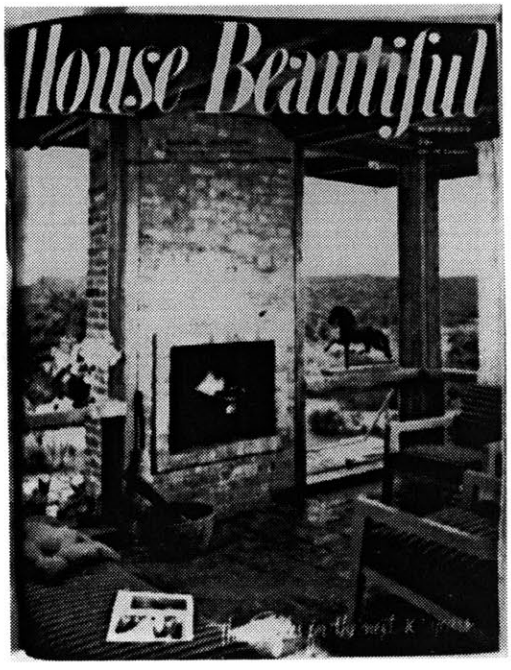
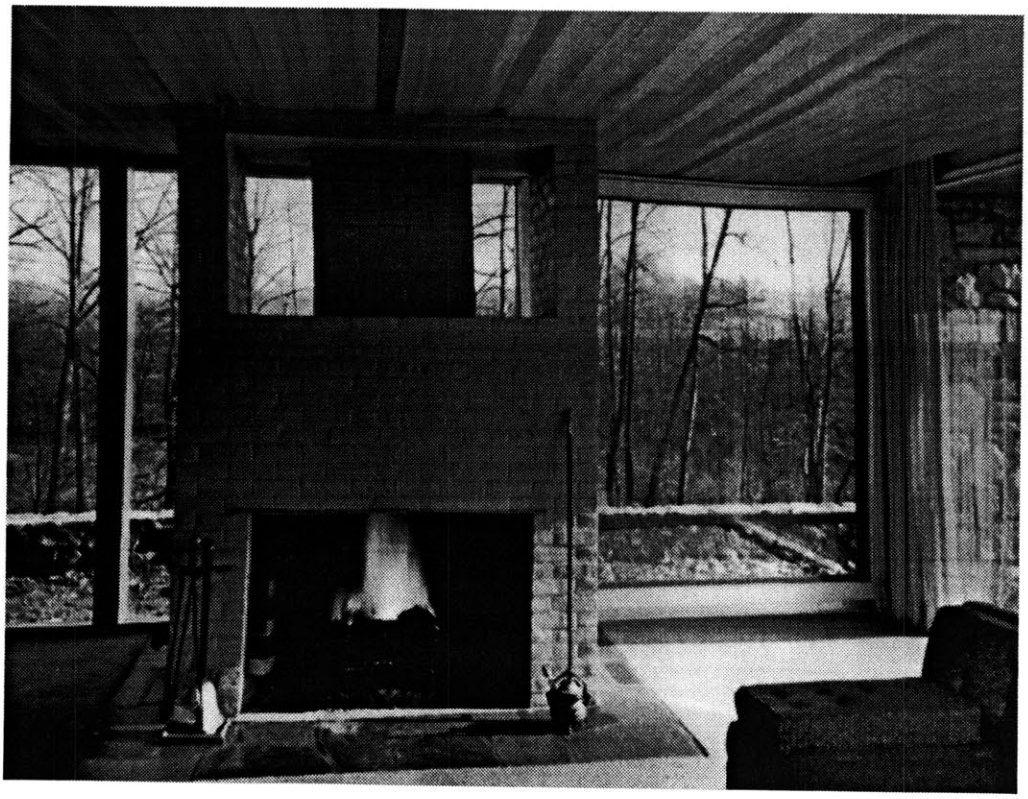


Figure 1.21:
Hearth and view
Cover of *House Beautiful*, 1950.

Figure 1.22:
Fireplace "stands in one corner of living room, offering no competition to adjacent view of ocean.
Beach House, Clark & Butler, architects
("Fireplaces: A Changing Tradition," *Architectural Record*, 1954)

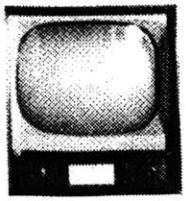
Figure 1.23:
"Here again is a fireplace which adjoins but does not detract from a view."
Schubart & Friedman, architects
("Fireplaces: A Changing Tradition," *Architectural Record*, 1954)

Figure 1.24:
View frames fireplace; fireplace frames view
Clark House, 1949
Marcel Breuer, architect

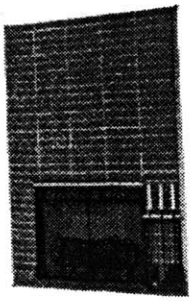


GOOD LIVING ROOMS MUST SOLVE SPECIAL PROBLEMS

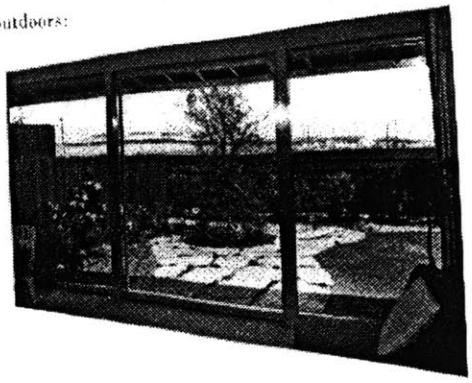
Nowadays, most living rooms have three views—two of them inside, one of them outdoors:



first, a view of the TV set;



second, a view of the fireplace;



and third, a view of the garden through a glass wall

In a good living room you do not have to move the furniture around (and thus scar the floor and wear out the carpet) every time you want to look at your favorite TV program, or watch the fire, or look out of the window. In a good living room, these three views are all visible within a 90° arc from wherever you sit.

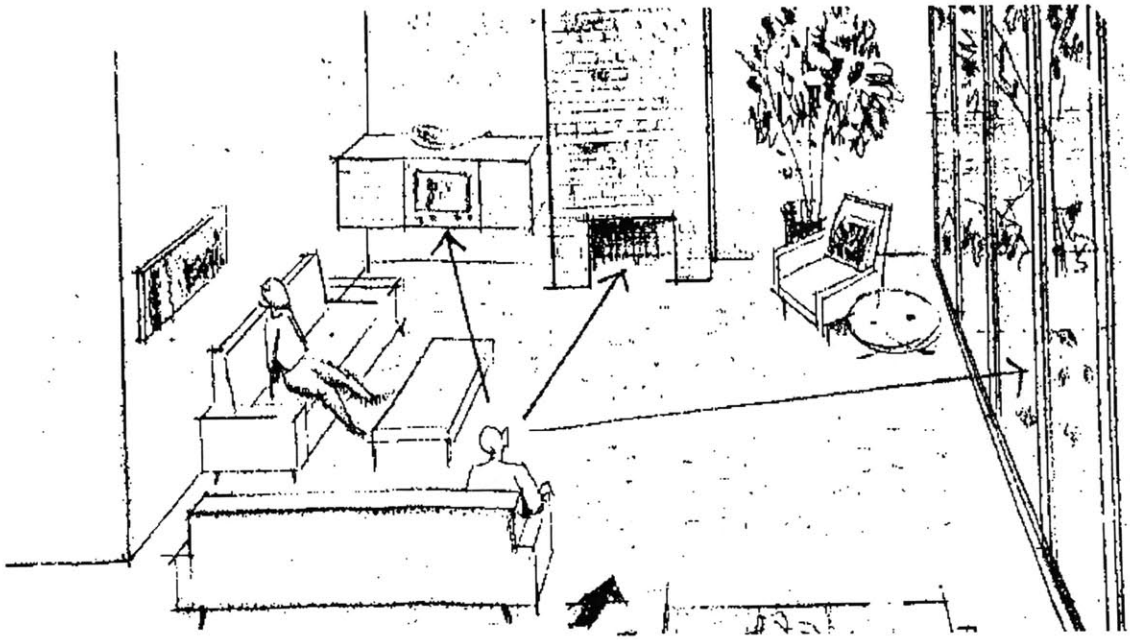


Figure 1.25:
"Three Views,"
(*House and Home*, September 1954)

Figure 2.1:
"Modern American Domestic architecture--alas!"
Note large, unshuttered, unmullioned windows.
(*The Honest House*, 1914)

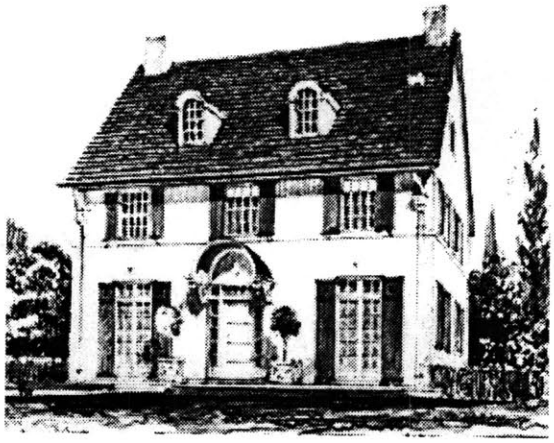
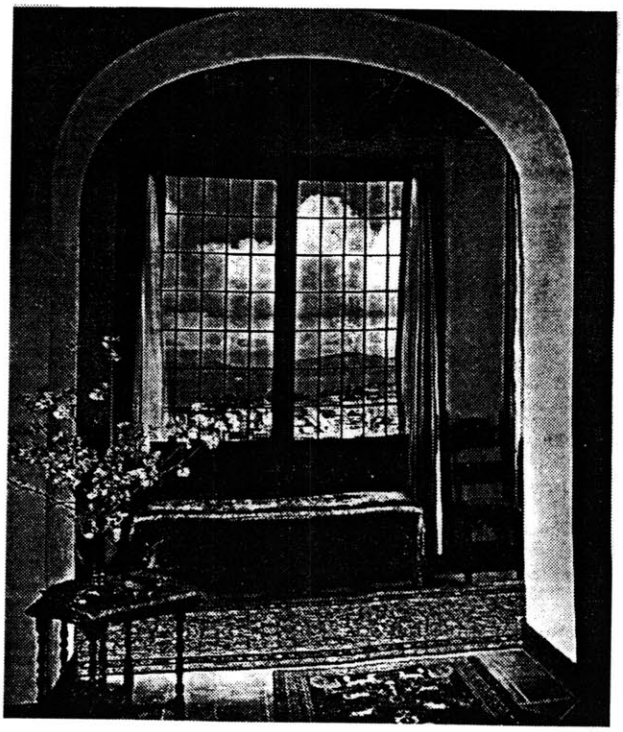


Figure 2.2:
"...if its designer had known more about architecture."
(*The Honest House*, 1914)

Figure 2.3:
"...the view from the inside looking out can be a factor that adds to the wonder and charm of rooms. San Francisco lies far below this leaded casement, a wonderful panorama of almost theatrical beauty."
("From the Inside Looking Out,"
House and Garden, 1927)

Figure 2.4:
"This is the strategic and stimulating vieew commanded by the home of G.R. Mitchison, an excellent example of 'From the Inside Looking Out'"
(*House and Garden*, 1927)



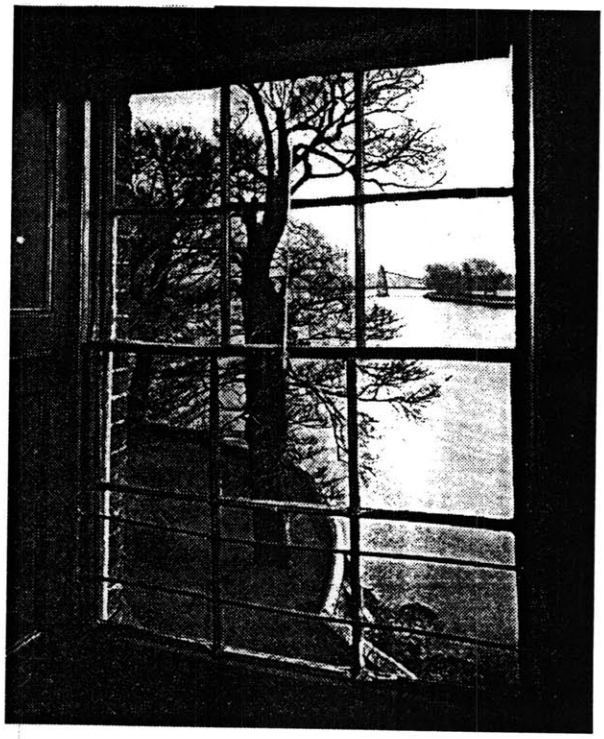
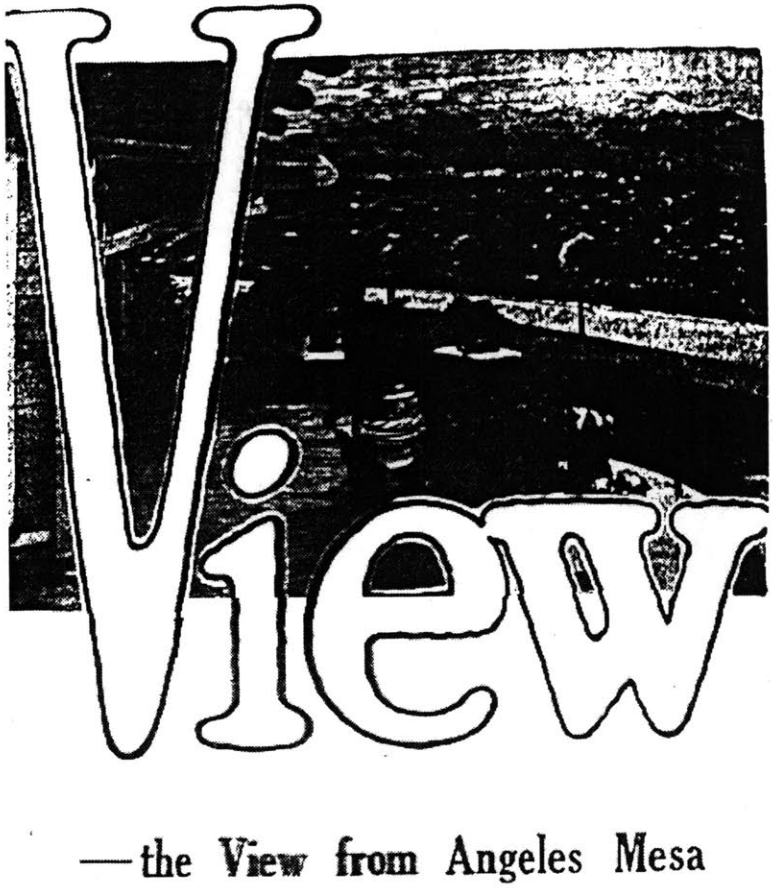


Figure 2.5:
Advertisement for Angeles Mesa,
(*Los Angeles Sunday Times,*
11 May 1919)



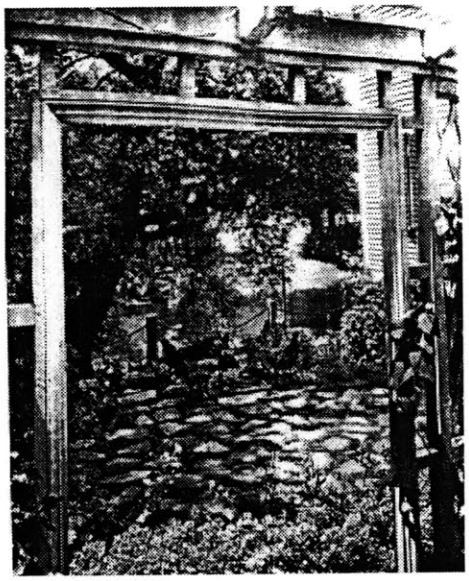


Figure 2.6:
"The view of a meandering Vermont
river has been twice framed"
("Framed Views,"
House Beautiful, 1935)

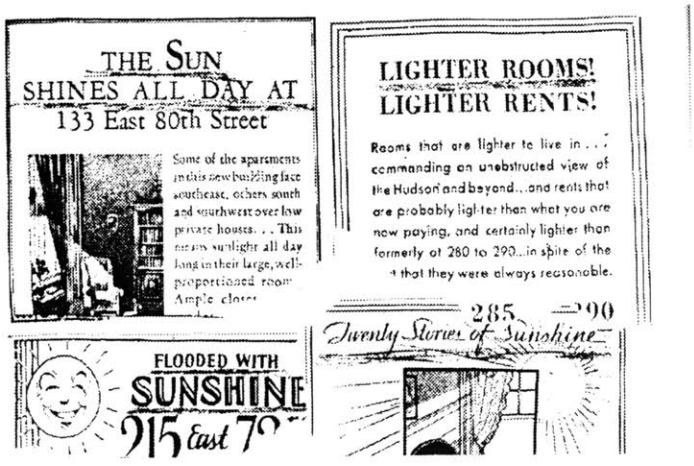


Figure 2.7:
Real estate ads
reproduced by Kocher and Frey
("Windows," *Architectural Record*, 1931)

Figure 2.8: Advertisement for *New York American* classified section, probably an urban view. (*House Beautiful*, 1935)

Figure 2.9: Lovell House, nearing completion, 1929. Richard Neutra, architect. While the living and dining rooms face southwest, this view is taken toward the northwest, emphasizing adjacent and undevelopable Griffith Park.

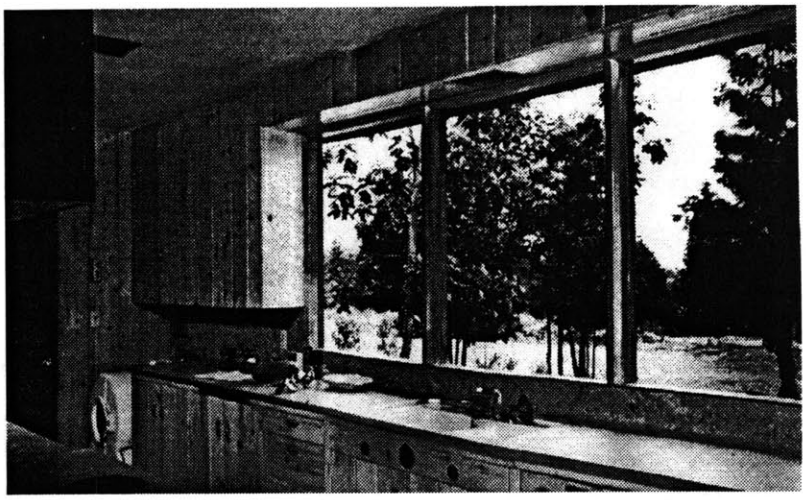


Figure 2.10: Kitchen with view, although "rural character" derives from use of knotty pine panelling.
Tavernite House, Seattle, WA. Paul Hayden Kirk, architect
(*Practical Houses for Contemporary Living*, 1953)

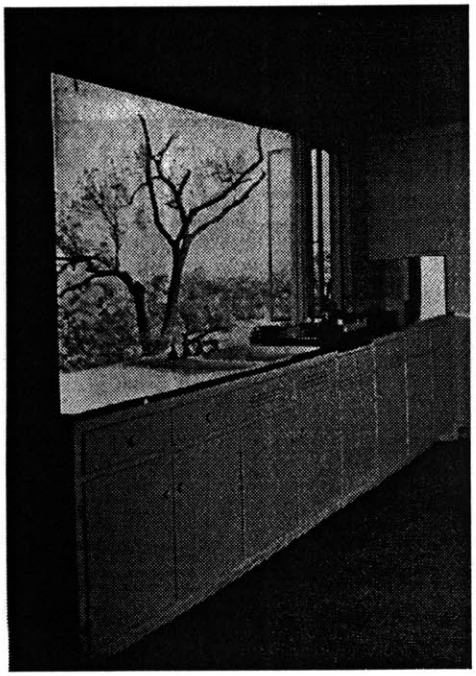


Figure 2.11:
Kitchen with view
Carl Koch, architect.
(*Tomorrow's House*, 1945)

Figure 2.12:
Kitchen with view, advertisement for General Electric appliances (*Californnia Plan Book*, 1946)

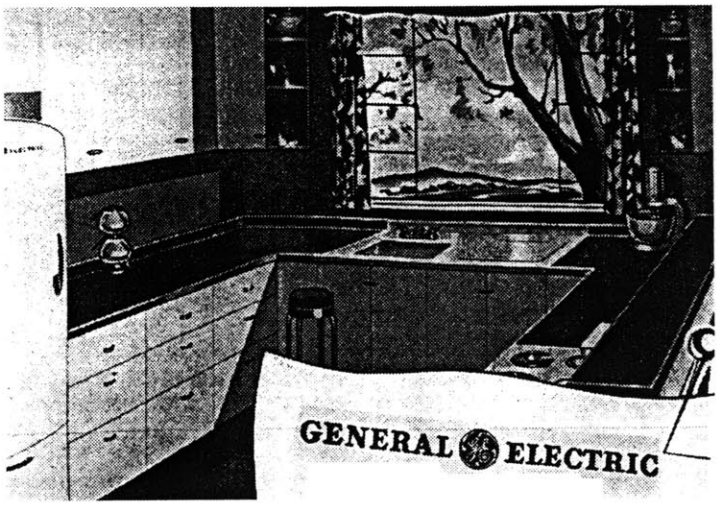


Figure 2.13:
Kitchen with view, cross-section.
"The House of 194x," Morris Ketchum, Jr. and Jedd Reiser, architects
(*Architectural Forum*, 1942)

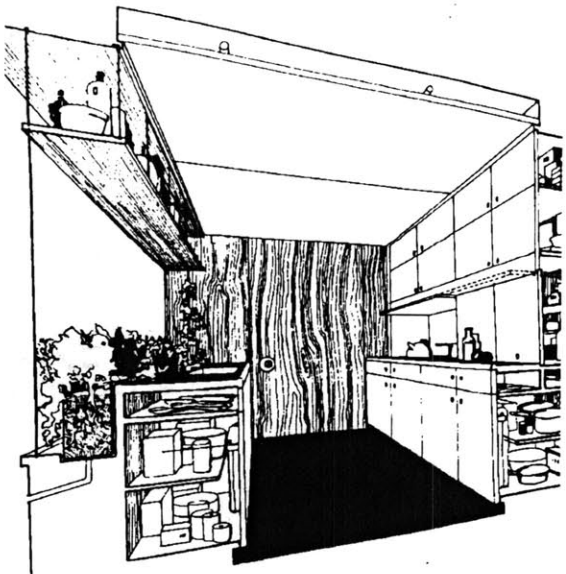


Figure 2.14:
Kitchen with view,
montage with working landscape
Advertisement for Ceco Engineering,
window manufacturers
(*House and Home*, 1952)

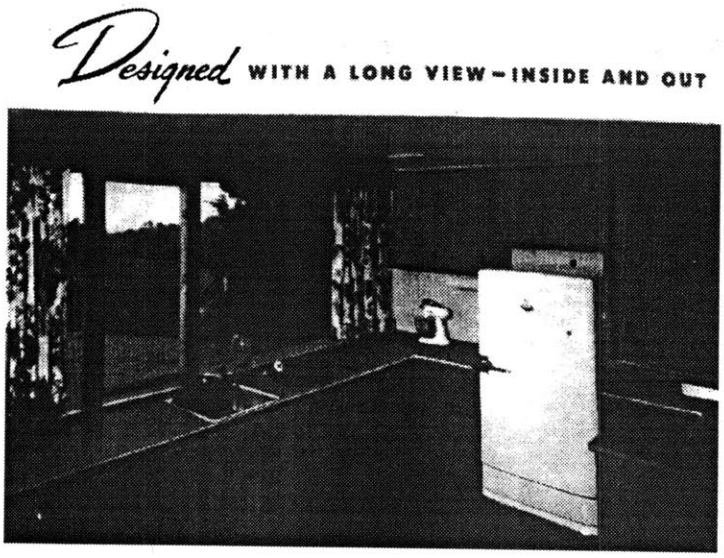


Figure 2.15: "The picture windows in this kitchen face on scenic beeauty that extends for miles. ...the long view calls for genuine Formica."
Advertisement for Formica brand plastic laminate

(*National Real Estate and Building Journal*, 1952)

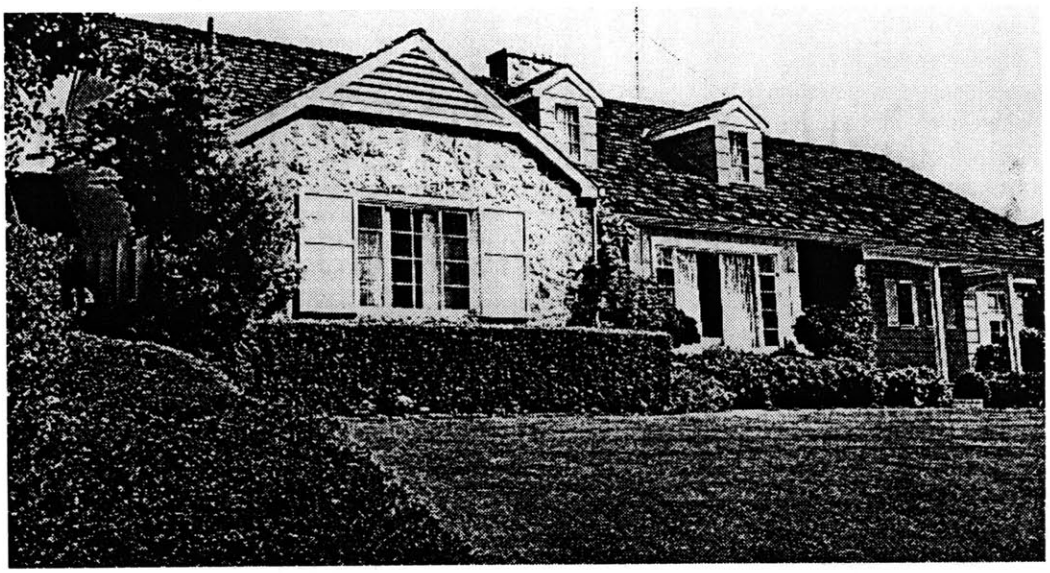


Figure 3.1:
"A descendant of the glass walls of Modernism, the picture window traded nature for neighbors."
(*House and Garden*, 1996)

Figure 3.2:
Dangers of visual reciprocity,
as depicted by the*New Yorker*,
(*Windows in Modern Architecture*, 1948)

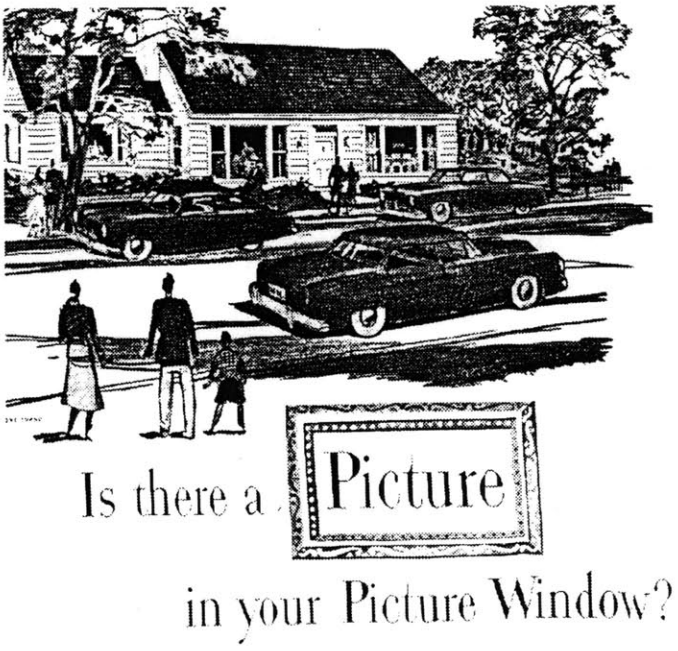
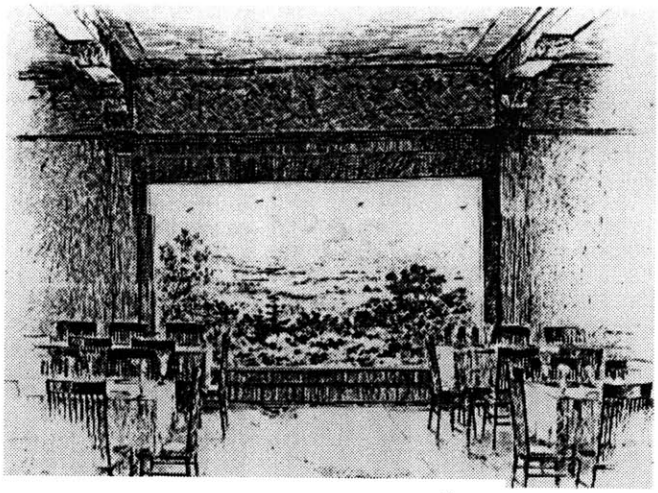


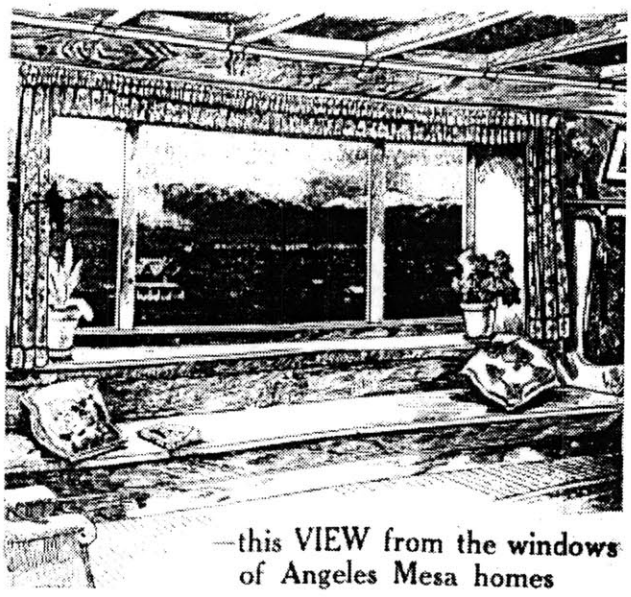
Figure 3.3:
"The picture window is becoming a fad . . .
It *is* a device to let in light and sun and a view.
It should *not* turn a house into a gold fish bowl.
. . . Above all, a picture window is supposed
to bring in a view. In no man's language is the
street considered a view."
(*House Beautiful*, 1950)

Figure 3.4:
"The Great Window"
at Poland Spring clubhouse,
John Calvin Stevens and
Albert Winslow Cobb, architects
(*American Architect and Building News*,
1889)



Figures 3.5 and 3.6:
Advertisements for Angeles Mesa
(*Los Angeles Sunday Times*, 1919)

Note especially broad three-part window
in figure at right

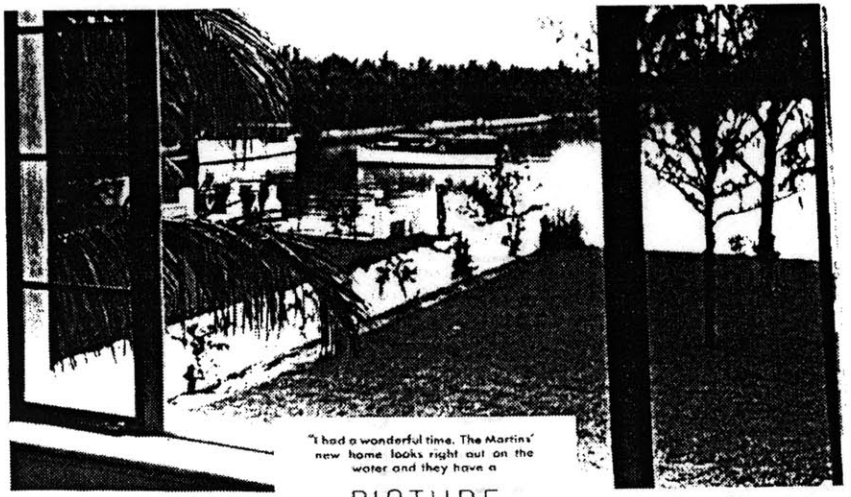


Picture Windows

Picture Windows are one of the most interesting and attractive innovations in design that have come to light in many years. They really DO SOMETHING to a home . . . giving it a distinctive charm that could not be duplicated through any other architectural device. There is something distinctly modern about them . . . yet something equally mellow and pleasantly old as the ages. Whatever type of home you build, there is a place in it for a Picture Window . . . but, however you plan this important adjunct to the art of gracious living, be sure that it is glazed with L-O-F Polished Plate Glass.

LIBBEY · OWENS · FORD
QUALITY GLASS

Figure 3.7: Advertisement for Libbey-Owens-Ford (*House Beautiful*, 1935)



"I had a wonderful time. The Martins' new home looks right out on the water and they have a

PICTURE WINDOW

about five feet square. Just one big piece of Polished Plate Glass framing that magnificent view . . . with panels on each side of it that can be opened for ventilation . . . please, let's have one like it in our new home."

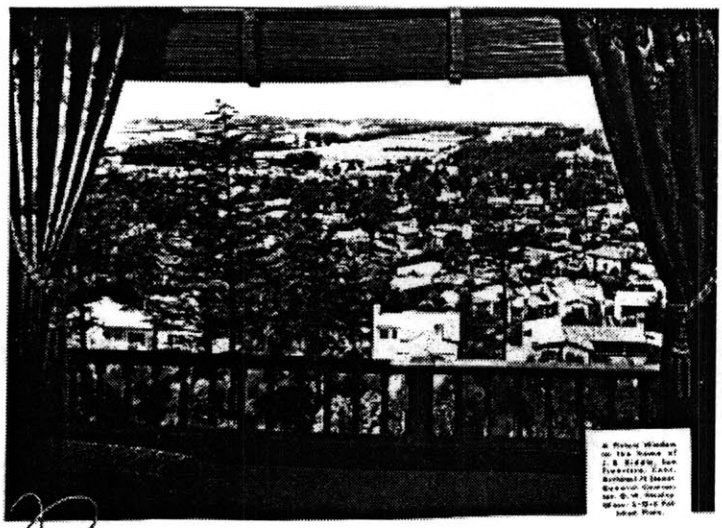
A Picture Window is made by setting into one wall of a room a single piece of fine polished plate glass, considerably larger than an ordinary window, so that the ever changing vista through it paints what is, in effect, a marching mural on your wall.

Your favorite architect can describe the use and construction of Picture Windows in detail. He can also tell you why it is essential to use nothing but the very finest polished plate glass in glazing them. Libbey-Owens-Ford Glass Company, Toledo, Ohio.

LIBBEY · OWENS · FORD
QUALITY GLASS

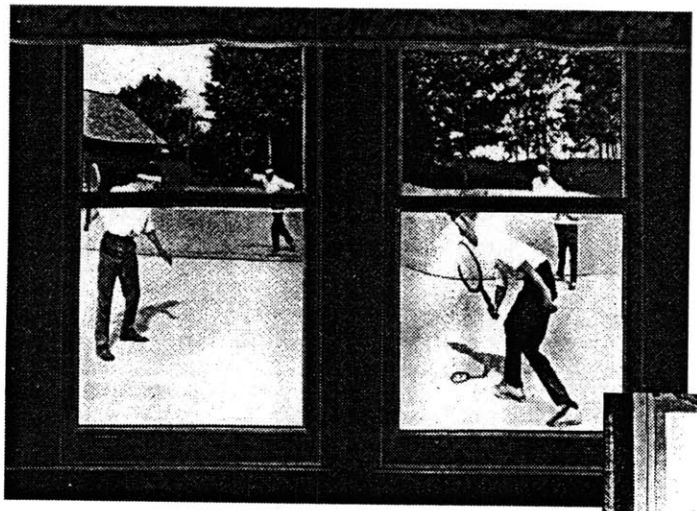
Figure 3.8: Advertisement for Libbey-Owens-Ford (*House Beautiful*, 1934)

Figure 3.9:
Advertisement for Libbey-Owens-Ford
(*House Beautiful*, 1935)



Believe it or not YOU ARE LOOKING THROUGH

GLASS



Figures 3.10 and 3.11:
"Which window is glazed with
Plate Glass?
Advertisements for
Plate Glass Manufacturers of America
(*House Beautiful*, 1926)

Figure 3.12: Advertisement for Libbey-Owens-Ford.
(*House Beautiful*, 1933).

In this image, the husband of the client pair is listening to the architect speak; his trust in the architect--and the reader's confidence in the scene--are represented by the transparency of the glass itself. There are no unspoken agendas here since there is visibly no place to hide one. The wife, on the other hand, has left the conversation regarding materials and associations with technological progress and stares somewhat dreamily instead at the model house. But her reverie is as good as achieved since she also is looking through plate glass; her vision for herself and her family will not be distorted by issues of economy or questions of consummation. Equating itself with the voice of the architect, the manufacturer was able to assert the quality of its product, the trustworthiness of its claims, the ultimate satisfaction of its clients (since all is known beforehand through the agency of transparency) in a remarkably condensed metaphor of morality, progress, and vision. For clients, architect, and manufacturer, choosing Libbey-Owens-Ford plate glass was a win-win-win situation.

Figure 3.13:
Advertisement for Libbey-Owens-Ford featuring Richard Neutra's VDL House. (*House Beautiful*, 1934)

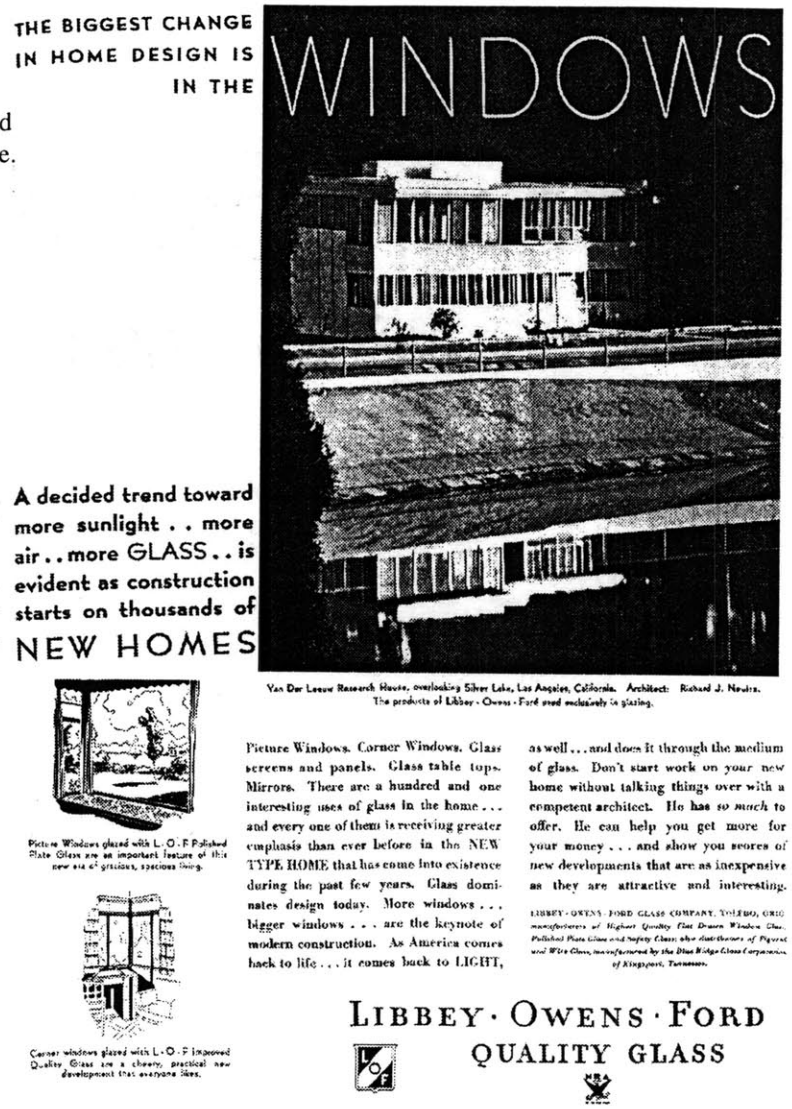
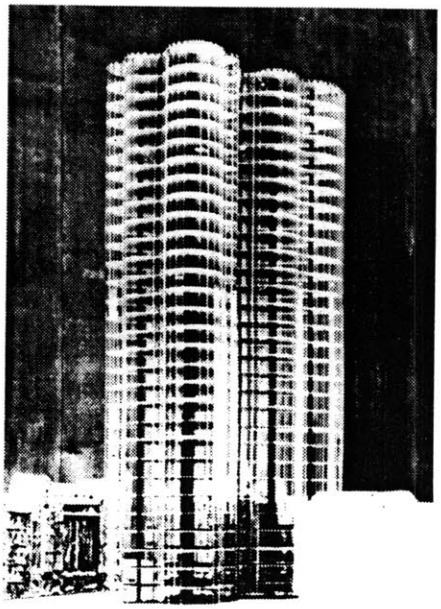


Figure 3.14:
Glass skyscraper, model, 1922 Mies van der Rohe



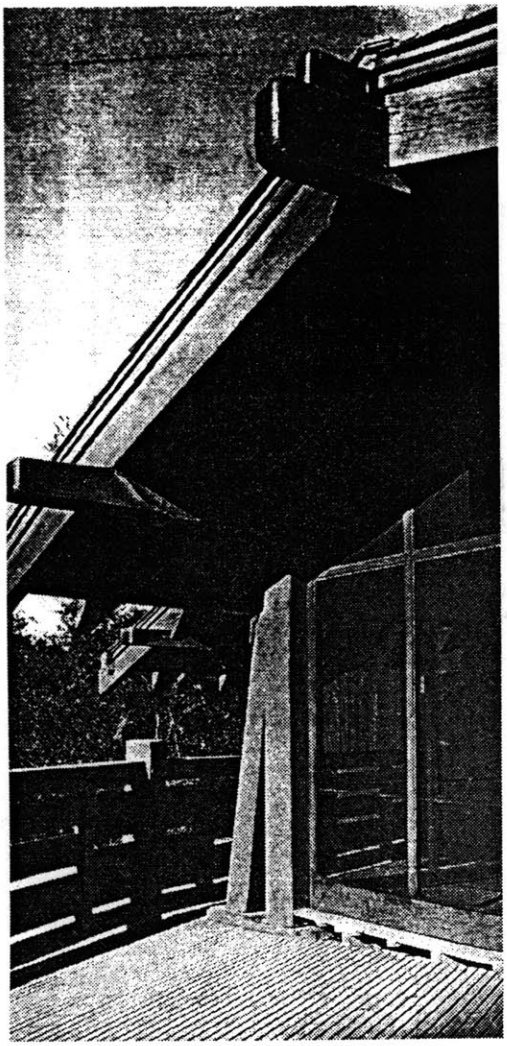
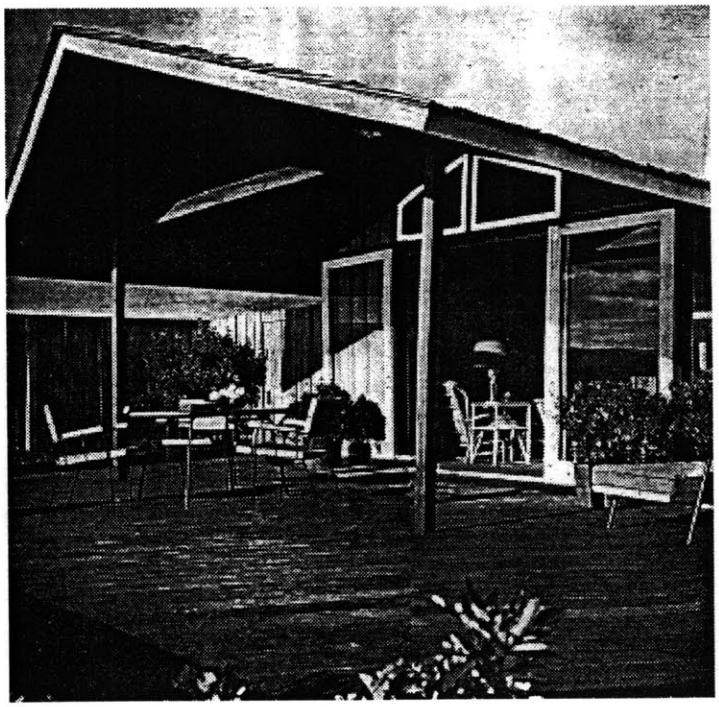


Figure 3.16:
Blacker House, 1909, Living room
Greene and Greene, architects
(*House Beautiful*, 1950)

Figure 3.15:
Greene and Greene Pratt House, 1907
House Beautiful's "Pace-Setter House" of 1949
is its "spittin' image"
(*House Beautiful*, 1950)

Figure 3.17:
"The emerging American style is well symbolized by this house . . . it's *very* American."
Spec. House for Belvedere Land Co., Belvedere, Ca.
George Rockrise, architect
(*House Beautiful*, 1950)



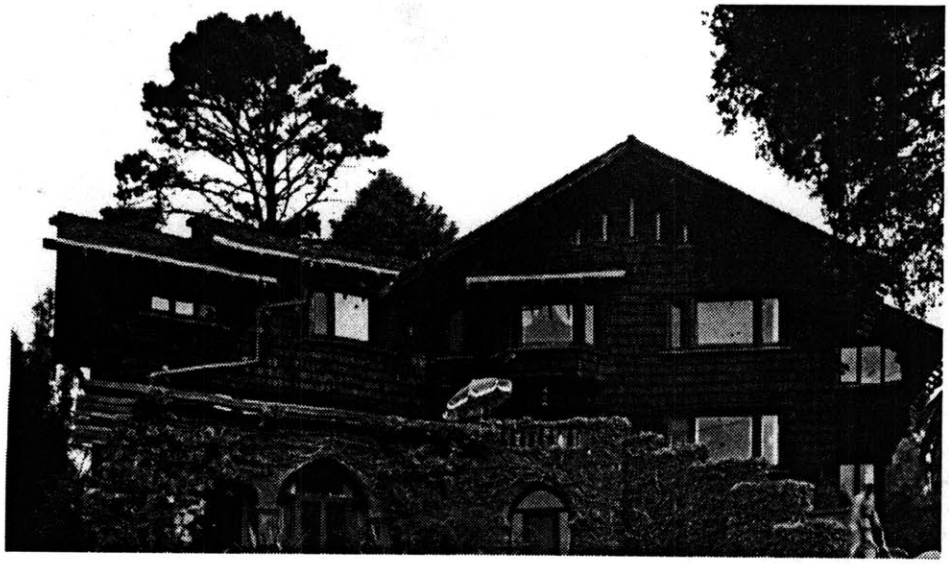


Figure 3.19:
Bentz House, Santa Barbara, CA, 1911
Greene and Greene, architects.
Note triple windows with large fixed
central pane flush in wall and at bays.

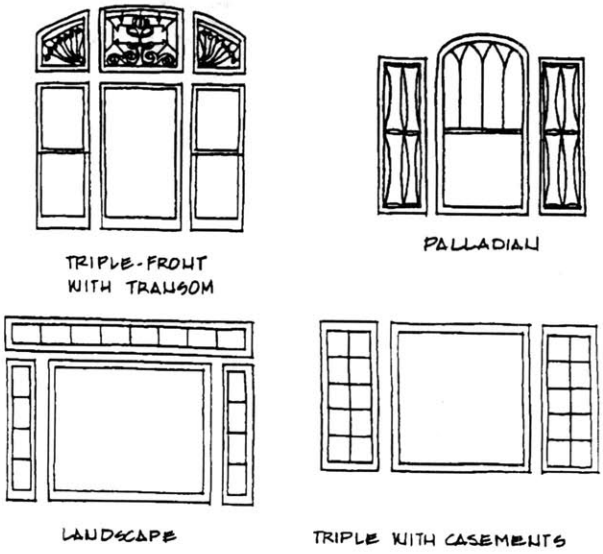
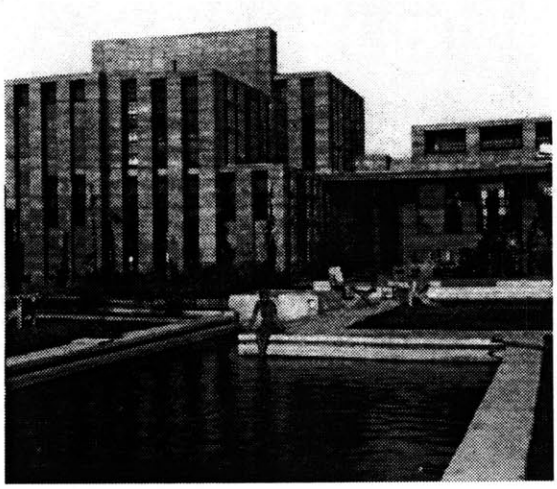


Figure 3.18:
Examples of triple windows
(*Vernacular Interior Architecture*, 1988)

Figure 3.20:
Bungalow, Seattle, WA.
Note landscape window
at top of steps.
(*Bungalows, Camps, and
Mountain Homes*, 1915)

Figure 3.21:
Knowle Cottage, Sidmouth, Devon
John Nash, architect
(*Description of Knowle Cottage*, 1834)

The image depicts a tripartite window extending from the ceiling to the floor, each section of which is thoroughly muntined. The center section, however, opens generously to the landscape, and judging by the creatures that have found their way inside, the window has been open for some time. Should there be any question remaining, the illustrator has placed a telescope off to the side but aimed directly out to the view. The muntins have been literally pushed aside for the view.



Figures 3.22 & 3.23:
Robert Lloyd Jones House, Tulsa, OK, 1929. Court side and interior.Frank Lloyd Wright, architect
(*In the Nature of Materials*, 1936)

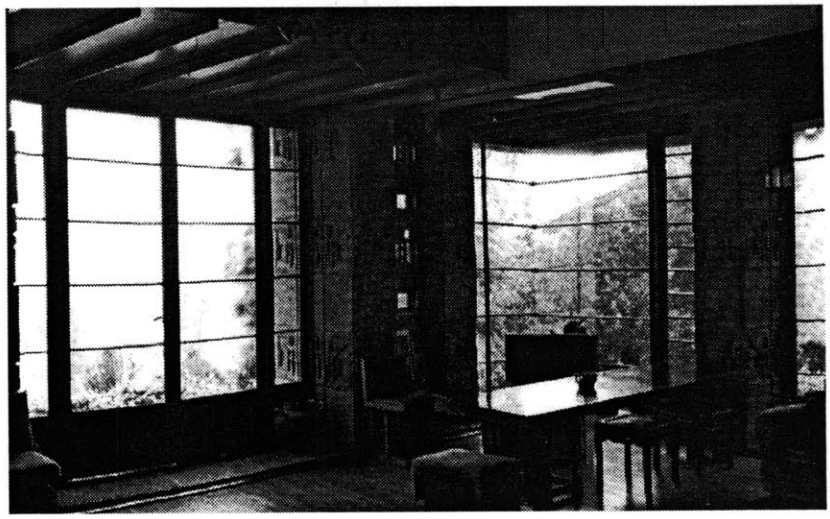


Figure 3.24:
Freeman House, interior
Los Angeles, CA, 1924
Frank Lloyd Wright, architect
(*In the Nature of Materials*, 1936)

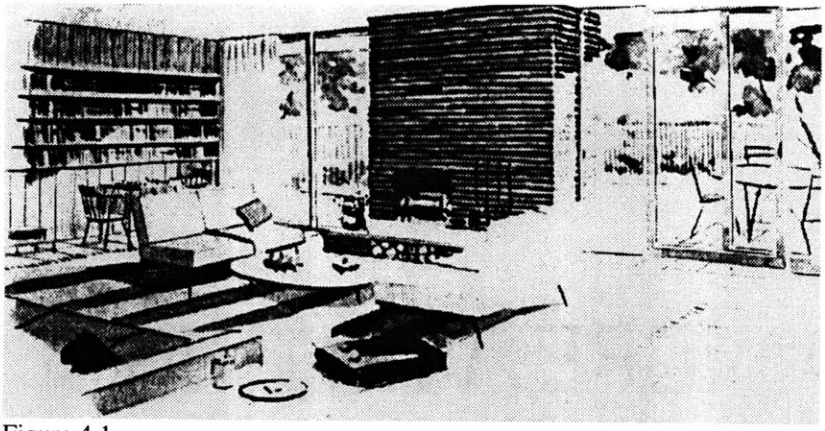


Figure 4.1:
"Windows today have an entirely new and decorative role--enlarged to frame a vista, they bring you a new sense of space and a new feeling of communication with the outdoors."
(*The Complete Book of Home Modernizing*, 1953)

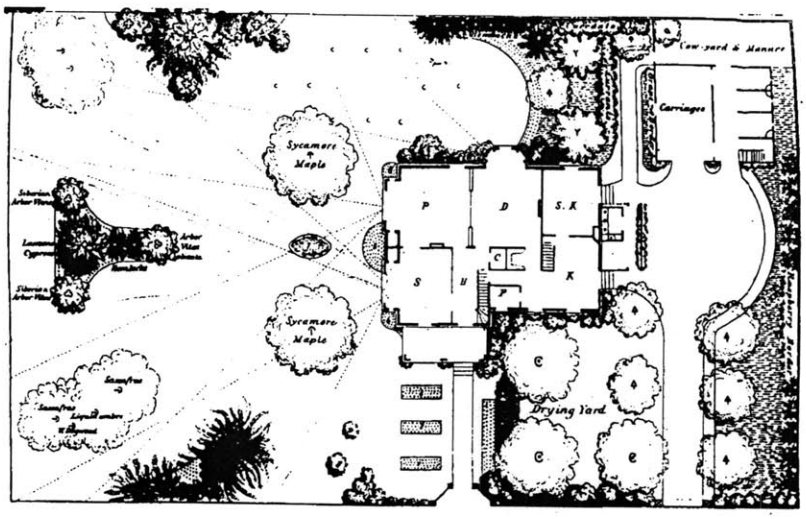


Figure 4.2:
Lines of sight from the windows of the suburban house
(*The Art of Beautifying Suburban Home Grounds*, 1870)

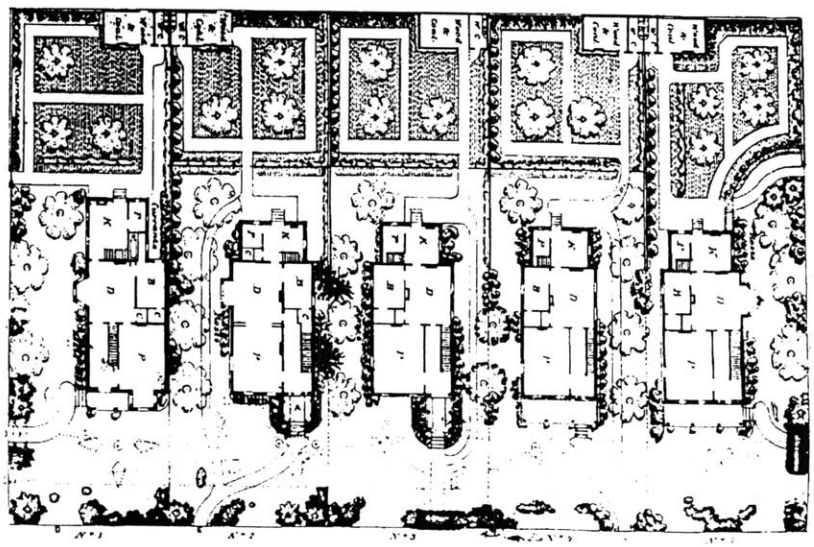


Figure 4.3:
Lines of sight across several front yards
(*The Art of Beautifying Suburban Home Grounds*, 1870)

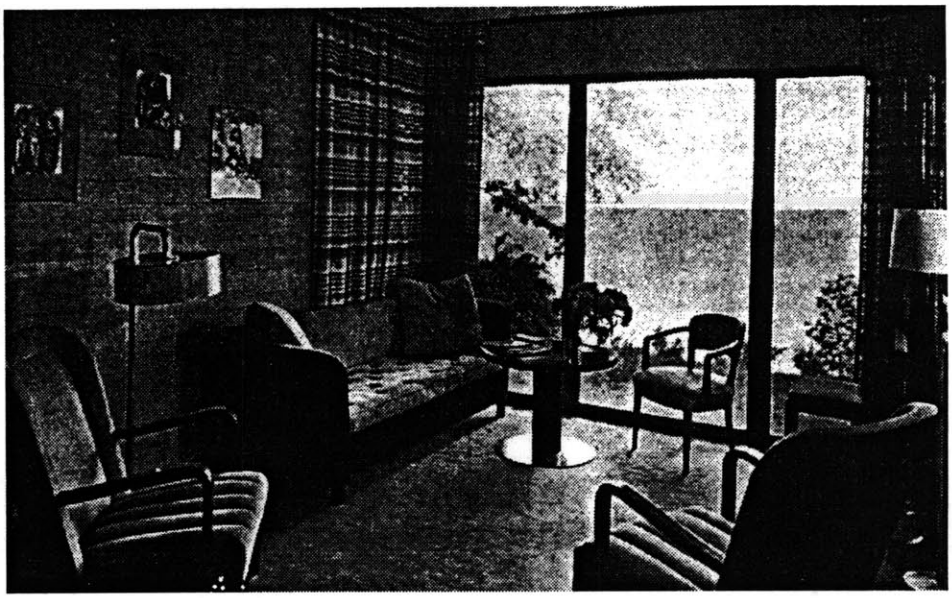
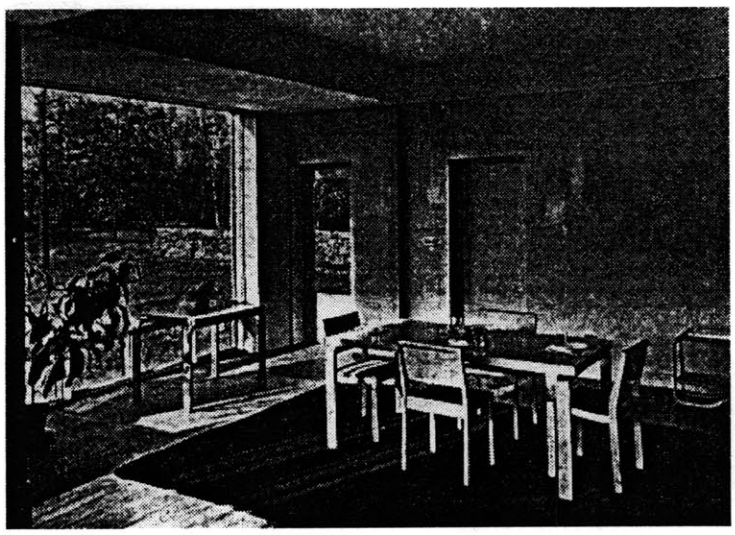
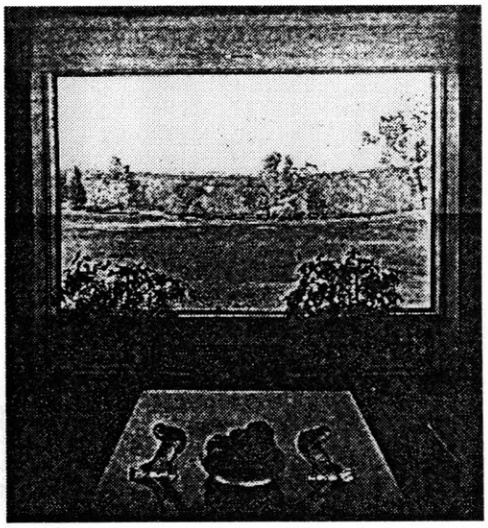


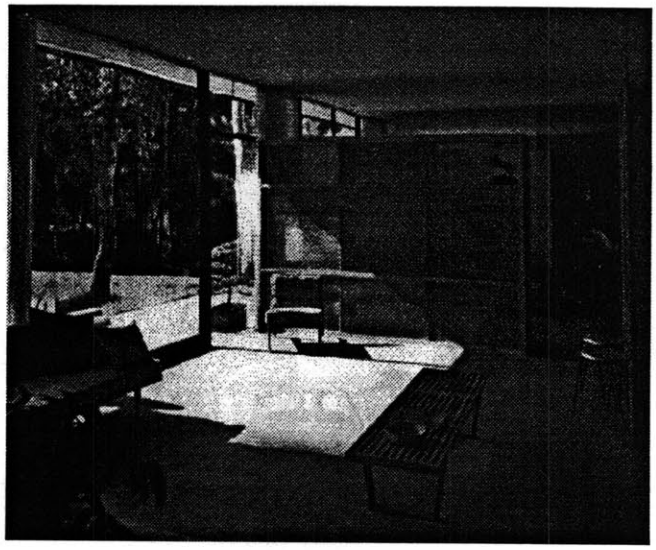
Figure 4.4:
"Restful as the horizon line itself and in rhythm with its basic simplicity, this room expresses the harmony and sincerity of an architecture that truly reflects the spirit of our times."
Home of Miss Ruth Page
Howard Fisher, architect, for General Houses
Nicholas Remisoff, decorator
(*Our Homes*, 1934)





Figures 4.5 and 4.6:
"Spaciousness is emphasized rather than size. To take full advantage of the site, the house was endowed with a certain degree of transparency: the moment one opens the front door, one sees right through the house."
Pertzoff House, Lincoln, MA. Views of dining room and workroom.
Constantin Pertzoff, architect
(*Modern Interiors*, 1942)

Figure 4.7:
"THIS SMALL ROOM LOOKS BIG
because it borrows space from outdoors
and from adjoining rooms."
"How To Make a Cramped Room Look Spacious,"
(*House and Home*, 1954)



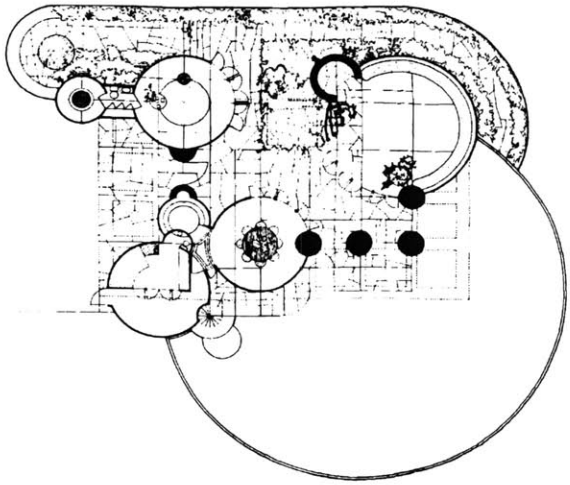


Figure 4.8:
Ralph Jester House, Palos, Verdes, Ca., 1938
Frank Lloyd Wright, architect.

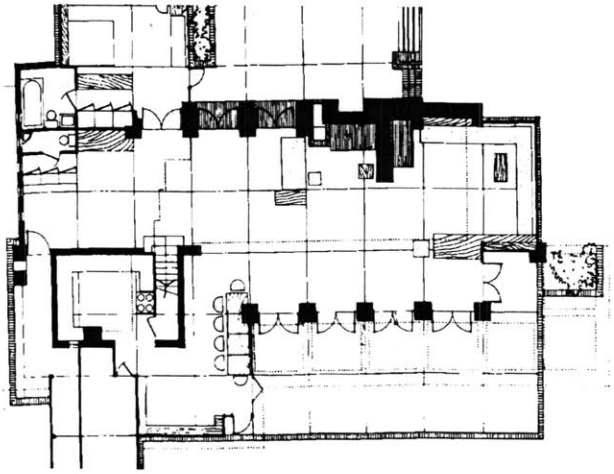


Figure 4.9:
Schwartz House, 1939
Frank Lloyd Wright, architect.

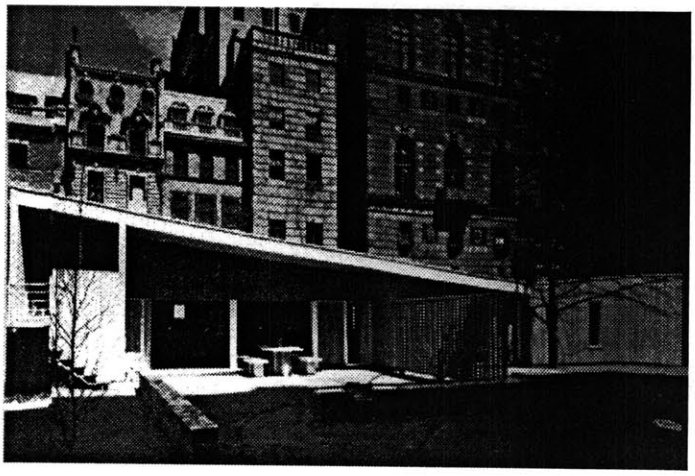
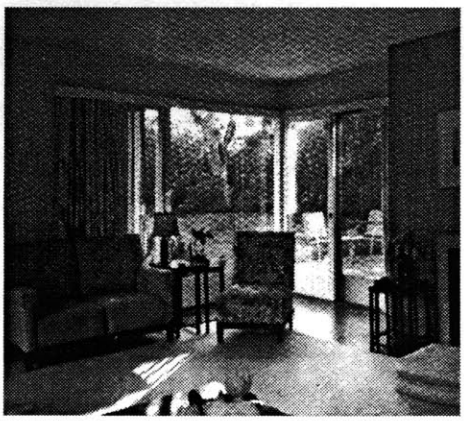


Figure 4.10:
House in the Garden, 1949
Museum of Modern Art, New York
Marcel Breuer, architect

Figure 5.1:
"A Little House with a Western Look"
Bonnet House
Richard Neutra, architect
(*Architectural Record*, 1948)

Figure 5.2:
"Broad in Vision Though Narrow in Land"
House overlooking Lake Michigan
Keck & Keck
(*Architectural Record*, 1948)



Figures 5.3 and 5.4:
House in Atherton, CA, entry (with living room visible beyond) and living room (with view)
William Hempel, architect
(*Progressive Architecture*, 1946)
Rhetoric of the view often outpaced the architecture

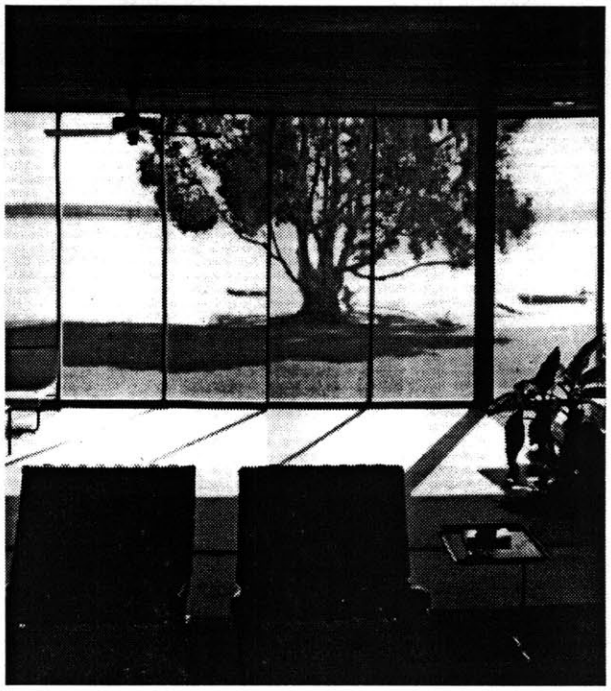


Figure 5.5:
"When many businessmen get home from a long, hot day at the office, they have to settle for the restorative powers of a fan, a cold shower or a gin and tonic. George Williamson, ... however, has it made. All he has to do is walk into his living room and surrender himself to the long, cool view shown opposite."
Williamson House, Lake Wales, FL
Mark Hampton, architect
(*Architectural Forum*, 1957)

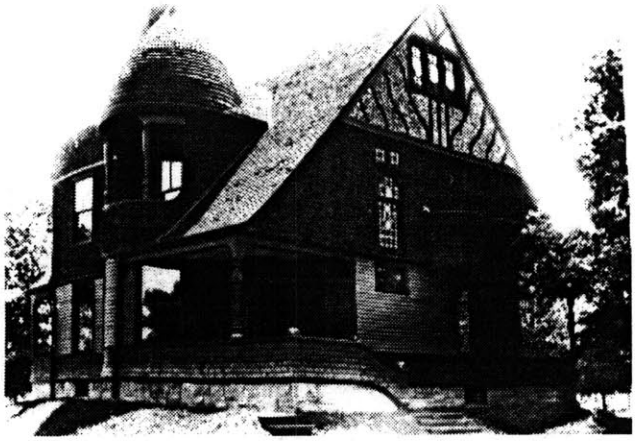


Figure 6.1:
Speculative House for
developer John Cochran, Chicago, IL, 1886-87
James Lyman Silsbee, architect

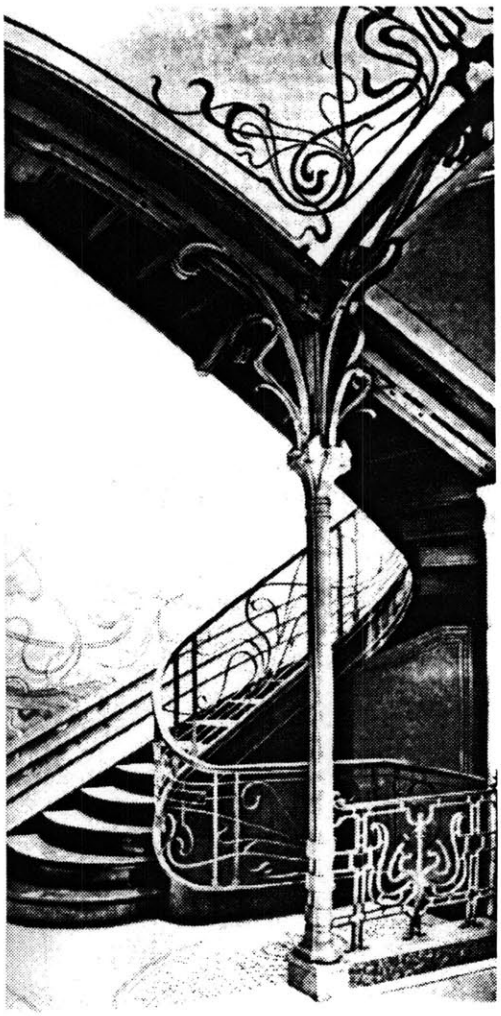


Figure 6.2:
Tassel House, Brussels, 1892-93, stairwell
Victor Horta, architect

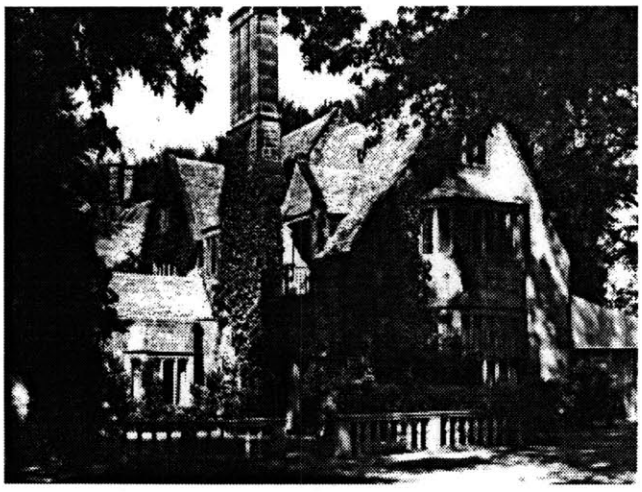


Figure 6.4:
Edsel Ford House, Grosse Pointe, MI, 1927
Mellor, Meigs, and Howe, architects

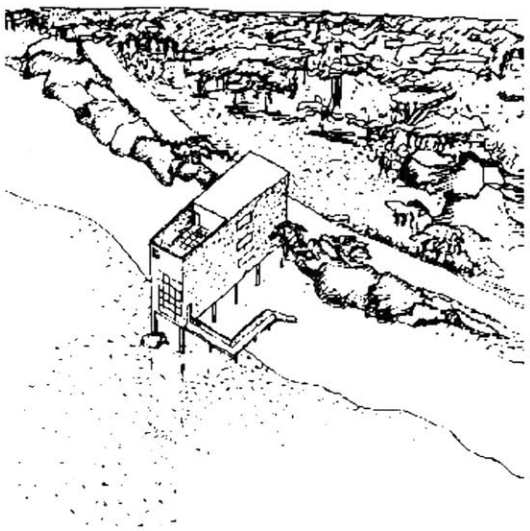
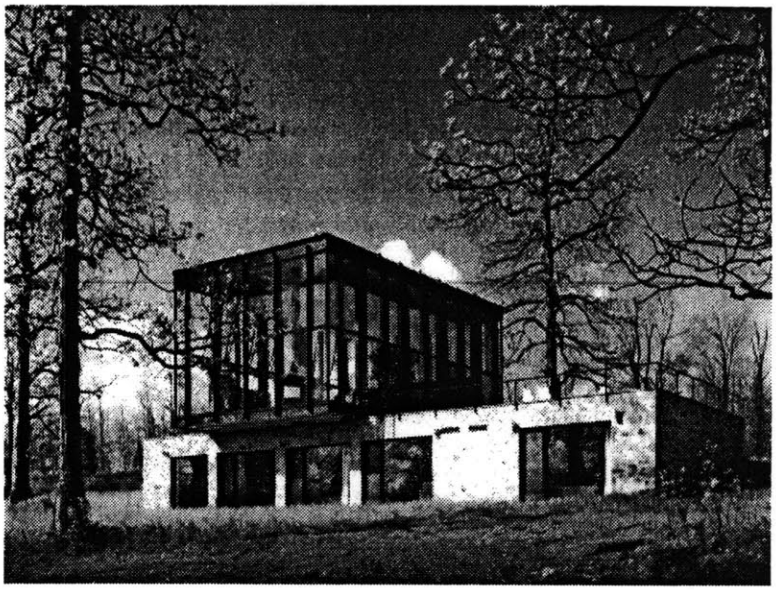


Figure 6.3:
Citrohan House, 1922-27
Le Corbusier, architect

Figure 6.5:
Wiley House, New Canaan, CT, 1953
Philip Johnson, architect
Open living area at top.



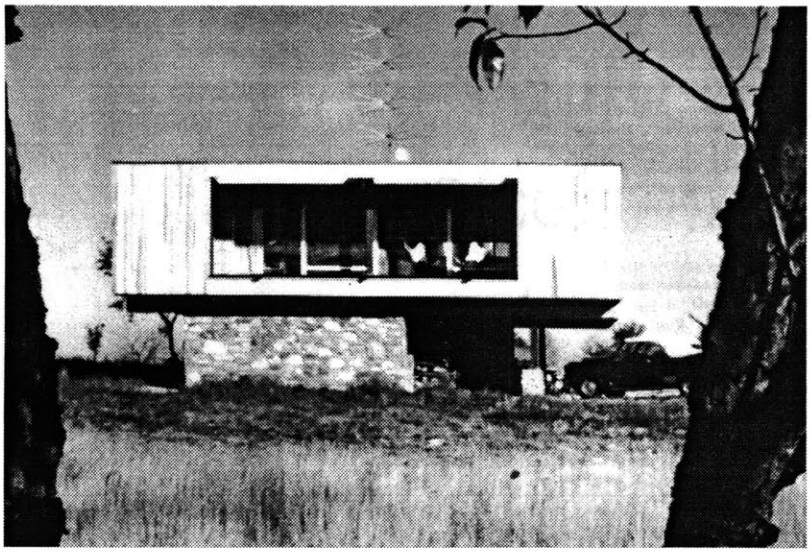


Figure 6.6:
Wolfson House, Millbrook, NY, 1950
Marcel Breuer, architect

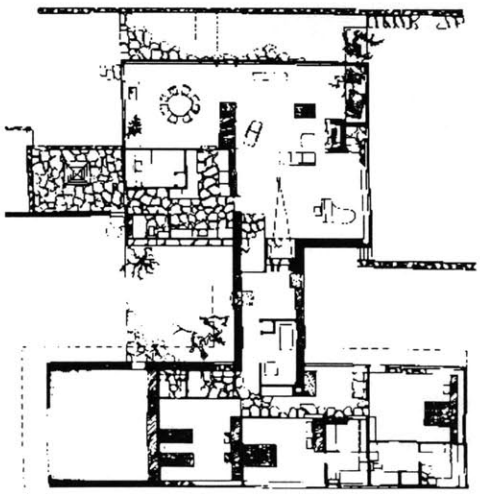


Figure 6.7:
Robinson House, Williamstown, MA, 1947
Bi-nuclear plan
Marcel Breuer, architect
Open living area separated from compartmentalized sleeping areas.

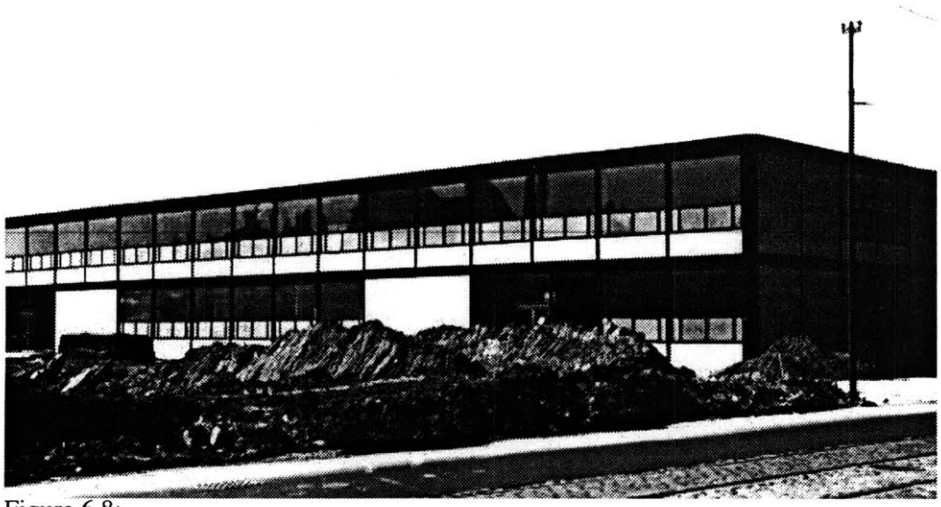


Figure 6.8:
Alumni Memorial Hall, Illinois Institute of Technology, Chicago, IL, 1945-46. Mies van der Rohe, architect

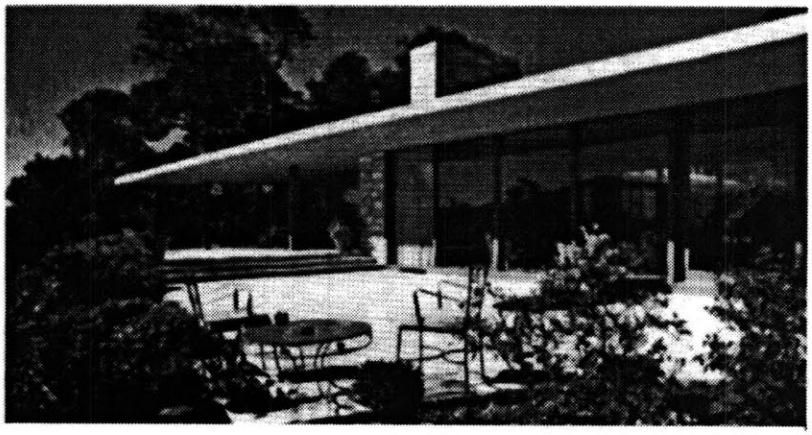


Figure 6.10:
Dettner House, Ross, California,
Exterior view
Albert Henry Hill, architect
(*Progressive Architecutre*, 1950)

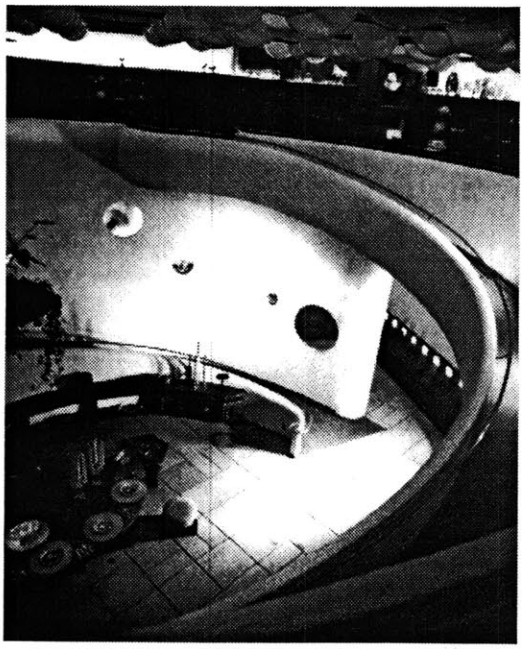


Figure 6.9:
V.C. Morris Shop, interior,
San Fraancisco, CA, 1948-49
Frank Lloyd Wright, architect

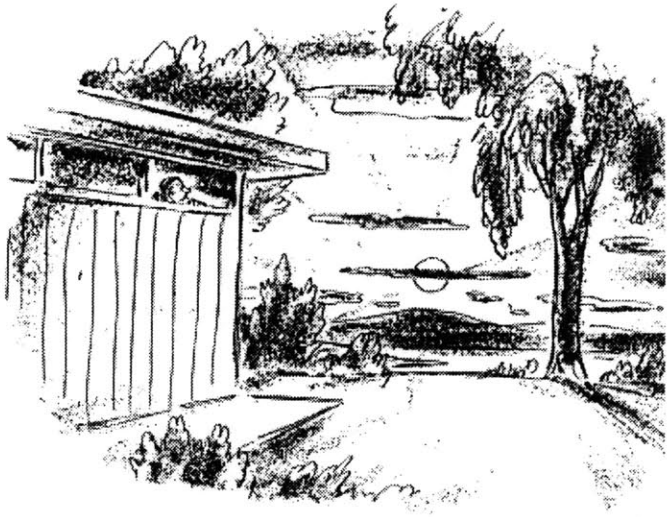


Figure 6.11:
Illustration for Lewis Mumford's essay,
"Function and Expression in Architecture"
(*Architectural Record* 1951)

The figure in the window realizes that
the natural world is larger
than his machine-made view of it.

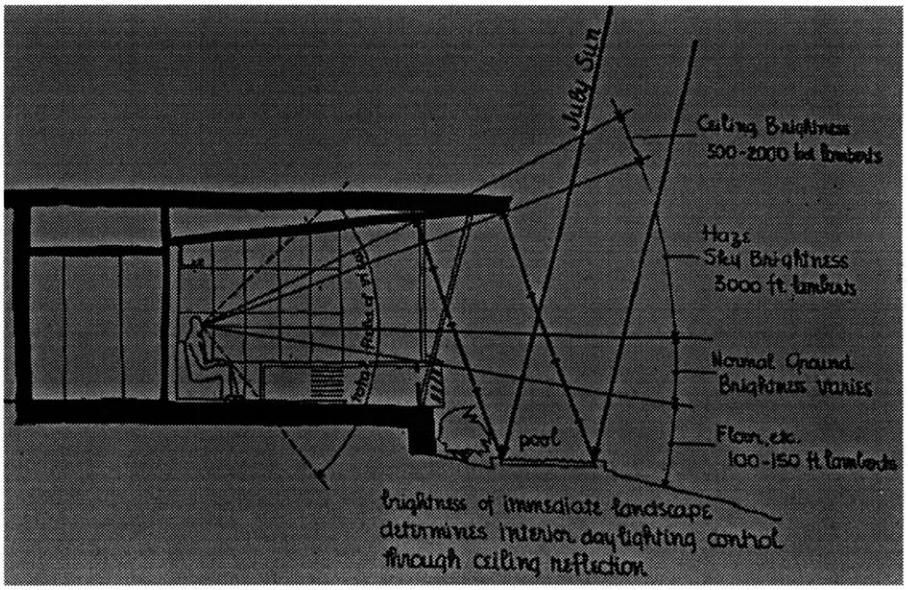


Figure 6.12:
Kenneth Welch House, Grand Rapids, Michigan, (1950)
Lighting and View Study
Kenneth Welch, architect
Architectural Forum (1948)

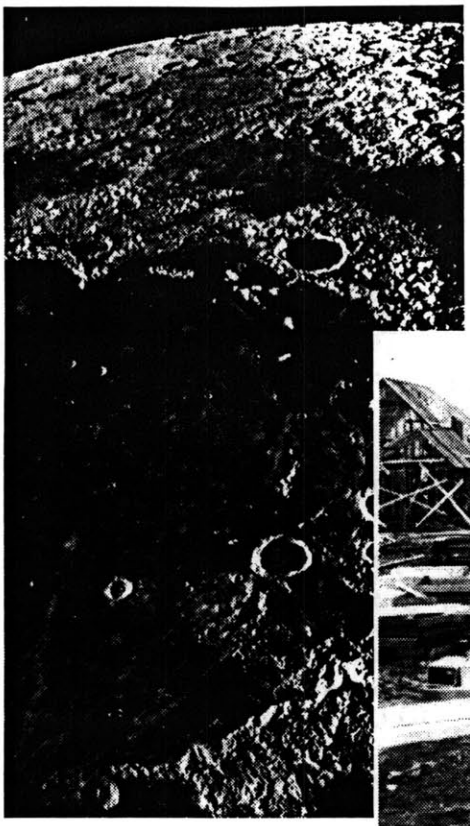
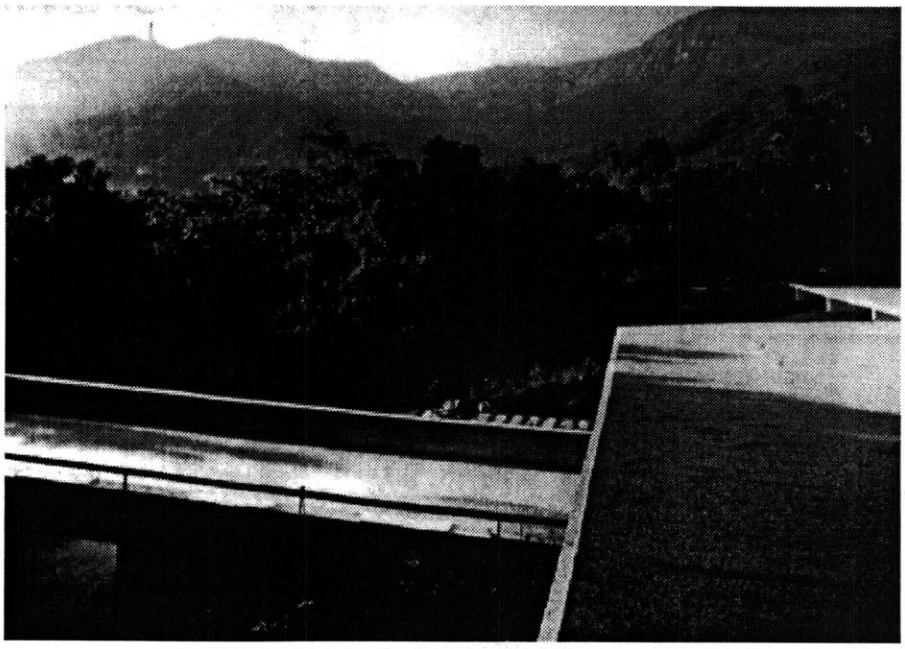


Figure 7.1:
The moon, like America, is still mostly mystery.
Both are characterized by "gorgeoous potentials" of site.
(*Mystery and Realities of the Site*, 1951)

Figure 7.2:
Realities of mass-production, Levittown, 1950

Figure 7.3:
The solution, a view from the roof of the Tremaine House, Montecito, CA, 1948
Richard Neutra, architect
(Cover photograph, *Mystery and Realities of the Site*, 1951)



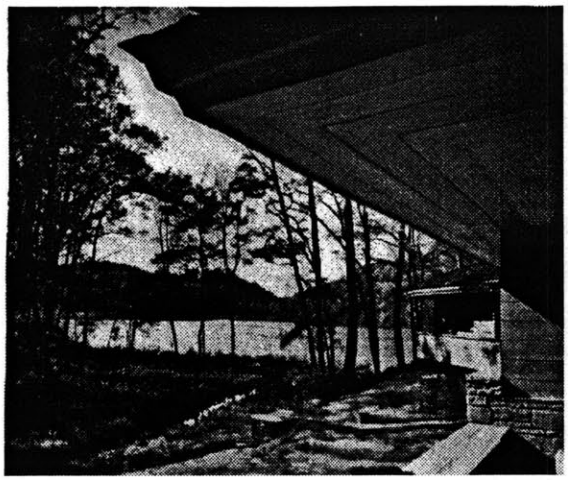


Figure 7.4:
"From open carport, as from all rooms,
one has fine view of lake."
Tafel House, Westchester, NY
Edgar Tafel, architect
(*Architectural Forum*, 1948)

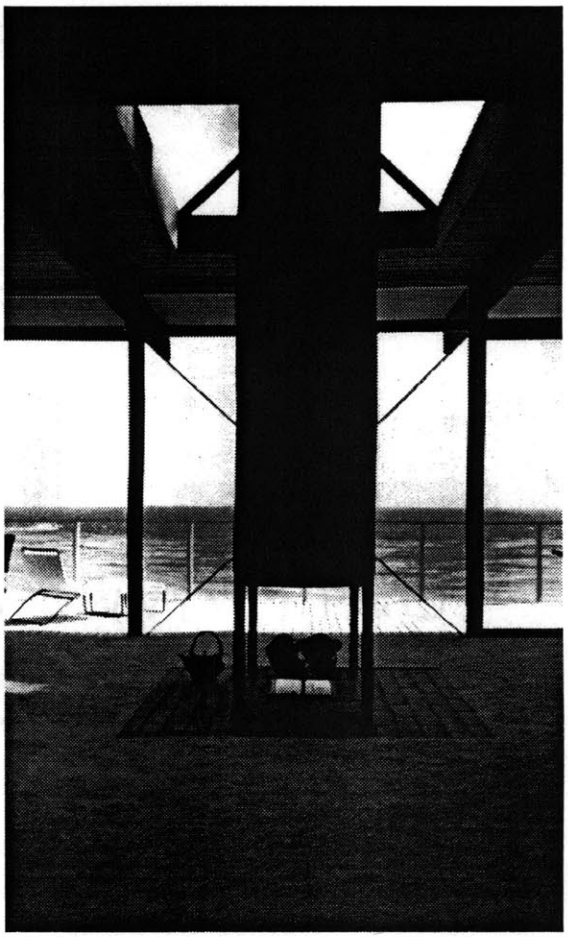


Figure 7.6:
Hunt House, Malibu, CA, 1955-57
Interior, with fireplace and view
Craig Ellwood, architect

Figure 7.5:
Hunt House, Malibu, CA, 1955-57
Twin garages at street front
Craig Ellwood, architect

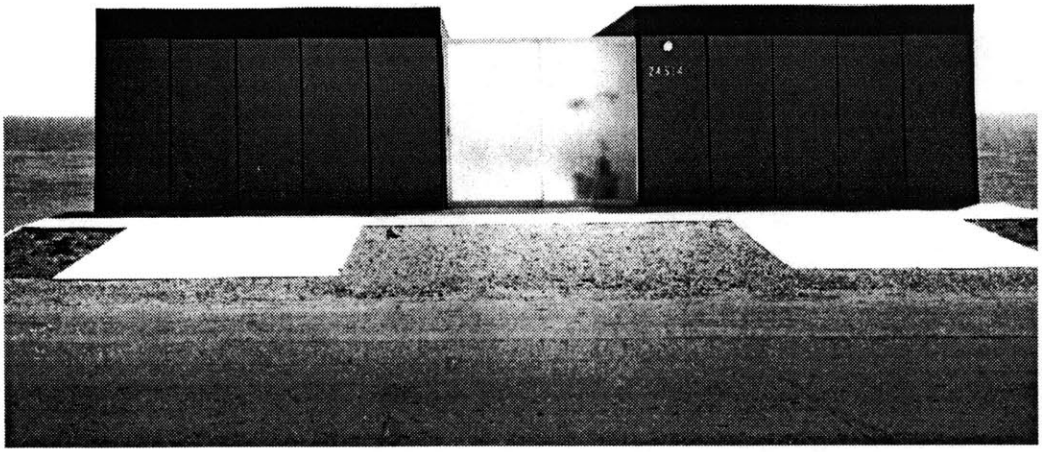


Figure 7.7:
Lovell House, Los Angeles, CA, 1929
Construction photograph
Richard Neutra, architect

Figure 7.8:
Lovell House, Los Angeles, CA, 1929
Exterior view
Richard Neutra, architect

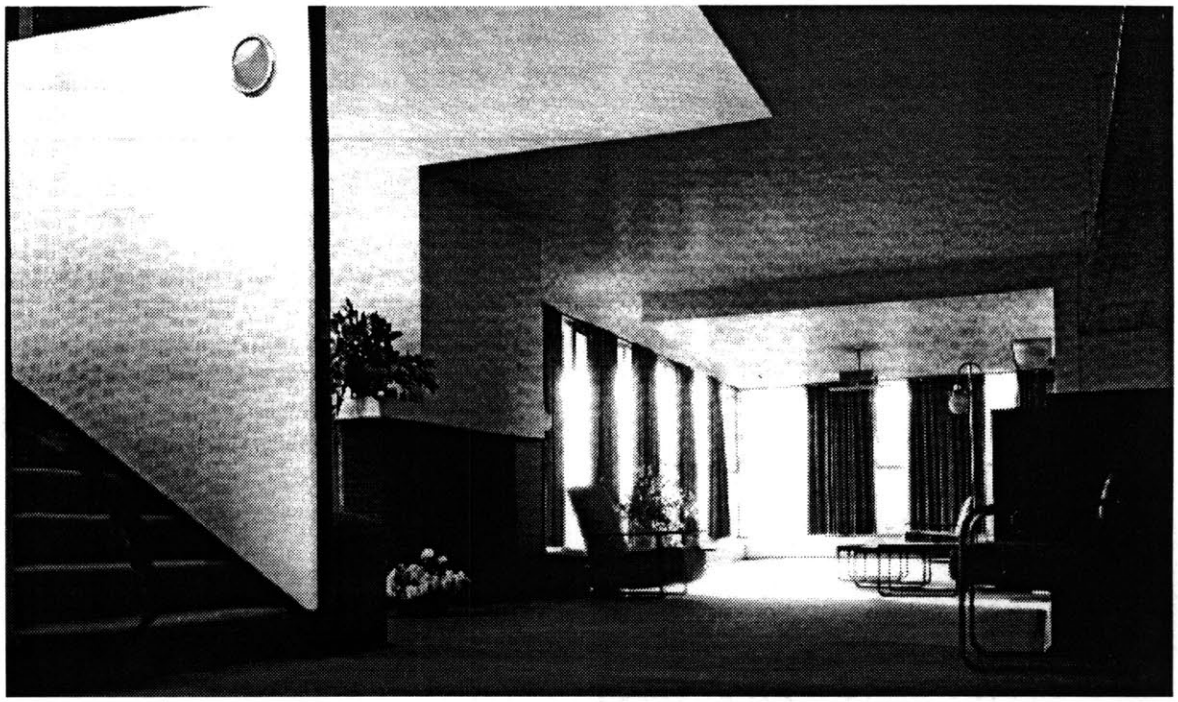


Figure 7.9:
Lovell House, Los Angeles, CA, 1929. Interior, looking toward living room. Richard Neutra, architect

Figure 7.11:
Lovell House, Los Angeles, CA, 1929
Interior, looking toward library alcove
Richard Neutra, architect

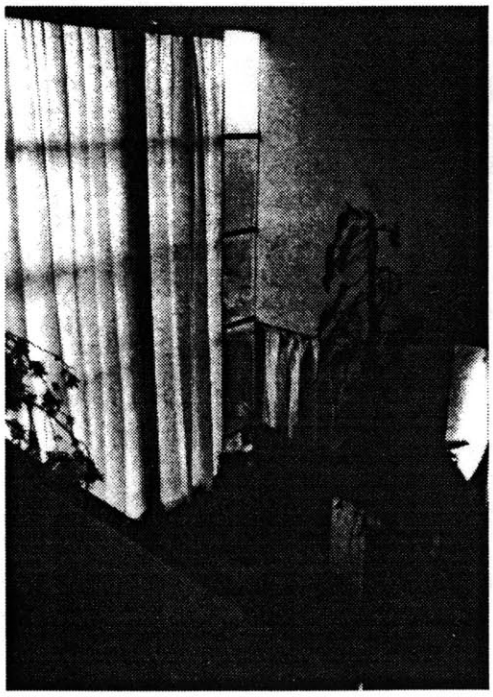
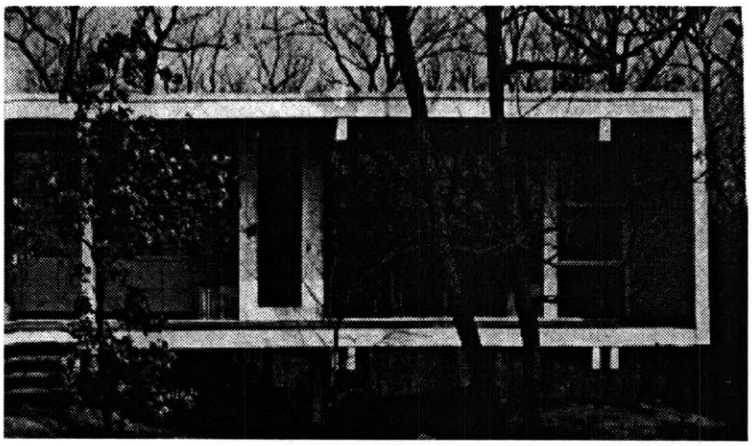


Figure 7.10:
Lovell House, Los Angeles, CA, 1929
Interior, looking down from stair.
Richard Neutra, architect

Figure 7.12:
"POST-AND-BEAM: it can give you open plans and glassy walls."
House in New Canaan, CT
John Black Lee, architect
(*House and Home*, 1954)



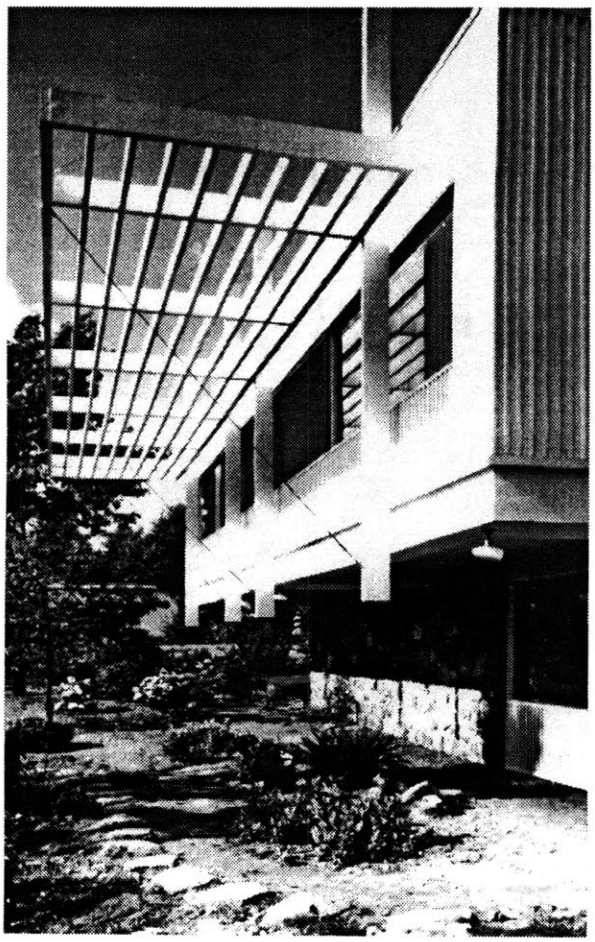


Figure 7.13:
Grieco House, Andover, MA, c.1951
Marcel Breuer, architect

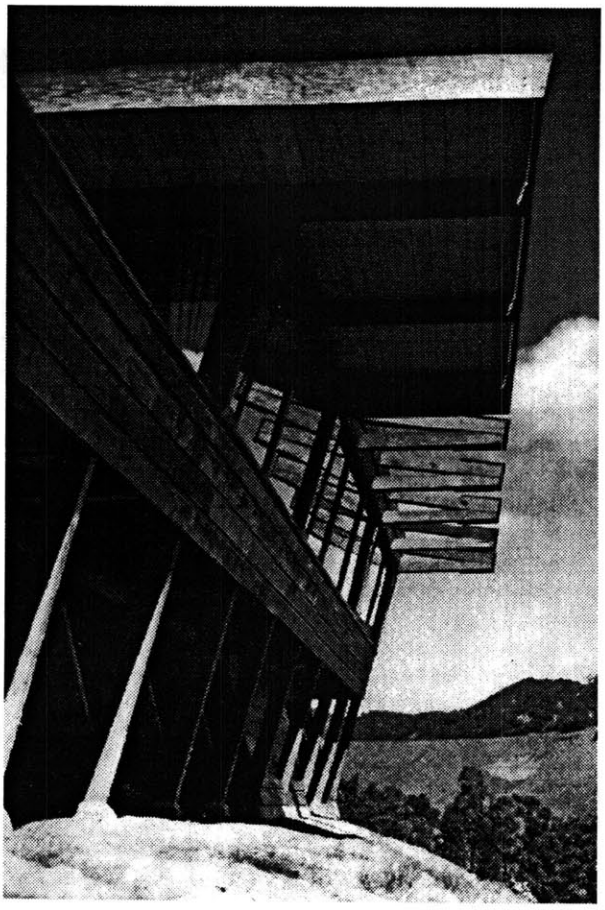


Figure 7.14:
"An aerial Perch gives drama to a tiny house. . . . The panorama equals any airplane view."
McClave House, San Rafael, CA
Fred Langhorst, architect
(*Practical Houses for Contemporary Living*, 1953)

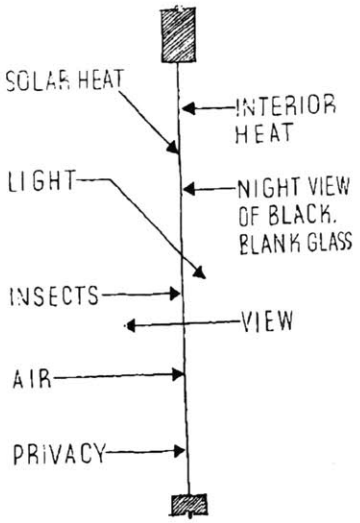


Figure 7.15:
"All-Purpose Window"
Functional cross-section
Richard Bennett, architect
(*Architectural Forum*, 1942)

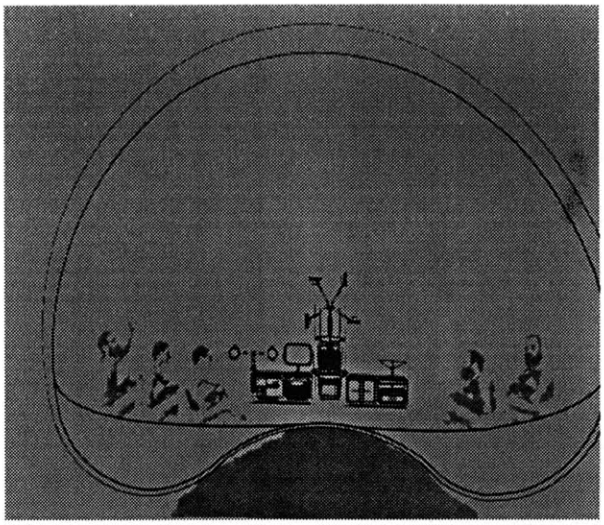


Figure 7.16:
"Power-Membrane House, section, 1965
Reyner Banham, architect

Figure 7.17:
Kaufmann House, Palm Springs, CA. Interior view looking toward chimney stack. Richard Neutra, architect

Figure 7.18:
View as concealed technology and pictorialized nature
Advertisement for Crane Co.
(Better Homes and Gardens 1956)

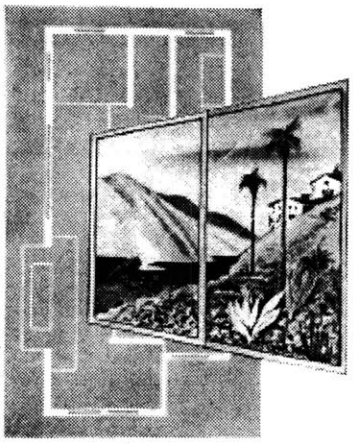


Figure 7.19:
Advertisement for Malibu Manufacturing Corp.
(*Architectural Record*, 1956)

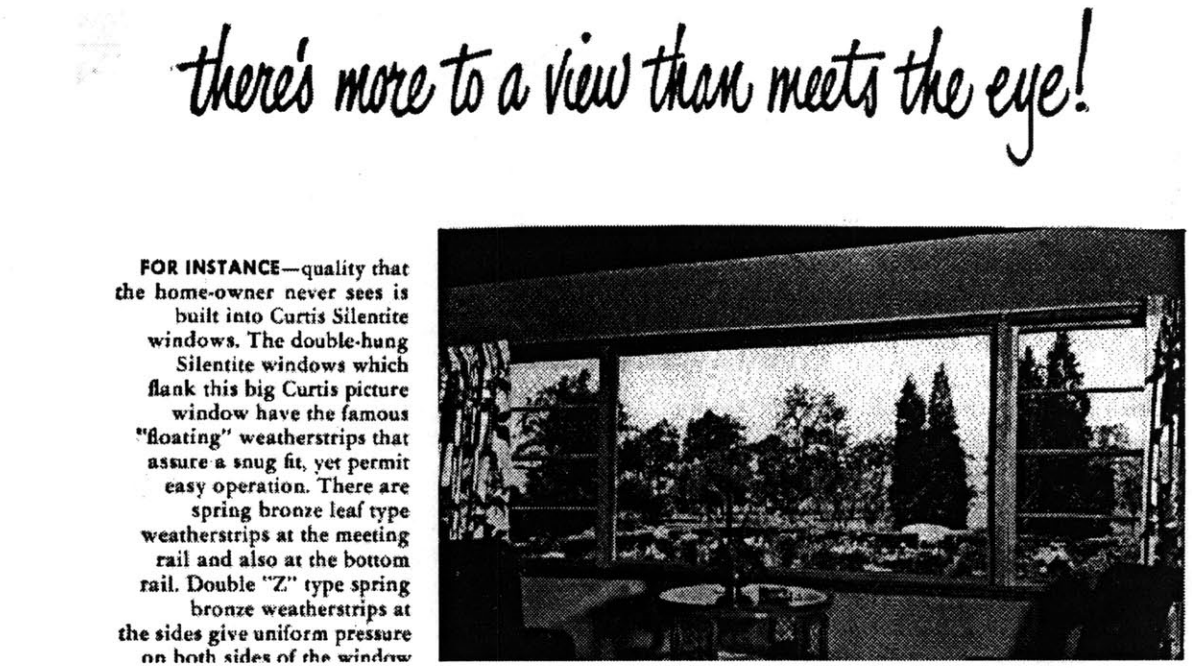
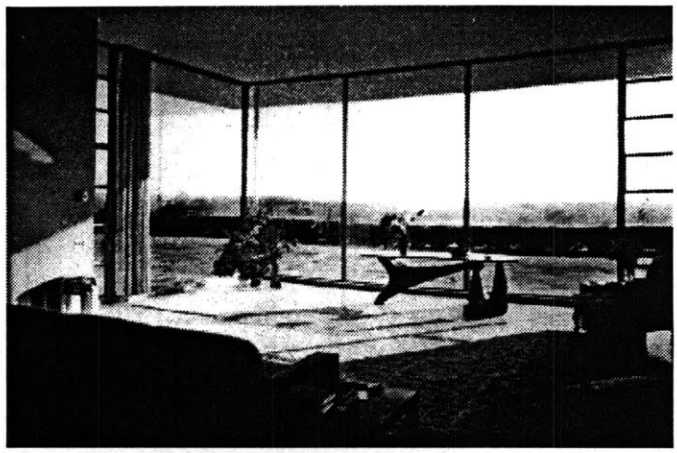


Figure 7.20:
"there's more to a view than meets the eye!"
Curtis Woodwork, advertisement
(*Architectural Forum*, 1951)

Figure 7.21:
Uskon Radiant Heat, advertisement
U. S. Rubber Co.
(*Architectural Record*, 1950)

Figure 7.22:
Illustration for paragraph on "Equipment" in *What is Modern Architecture?* 1942: "Modern central heating makes a house warm and comfortable even if pleasantly opened for light and view. . . . New inventions often break down old limitations."
Goodyear House, Old Westbury, NY, 1939
Edward Stone, architect



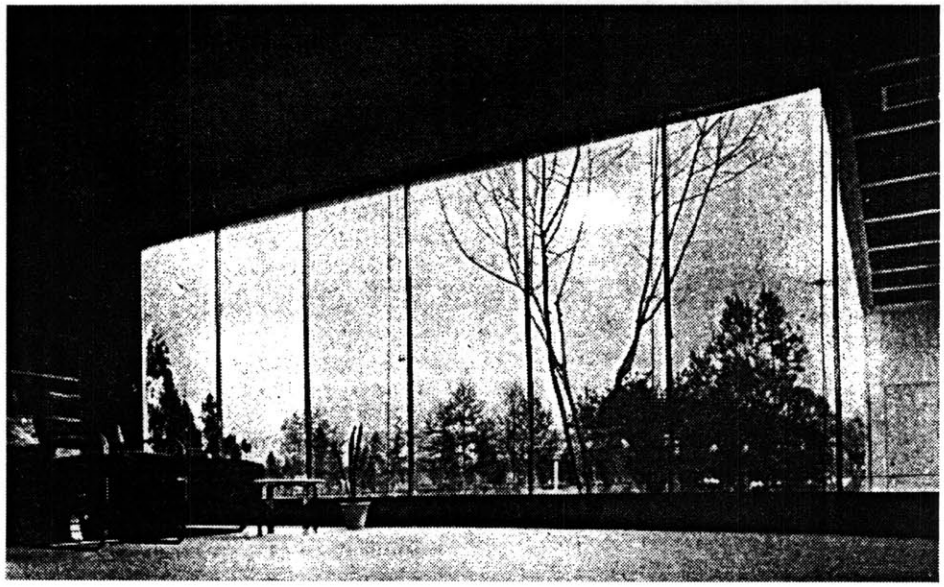


Figure 7.23:
Barsha House, Los Angeles, CA, 1936
Richard Neutra, architect

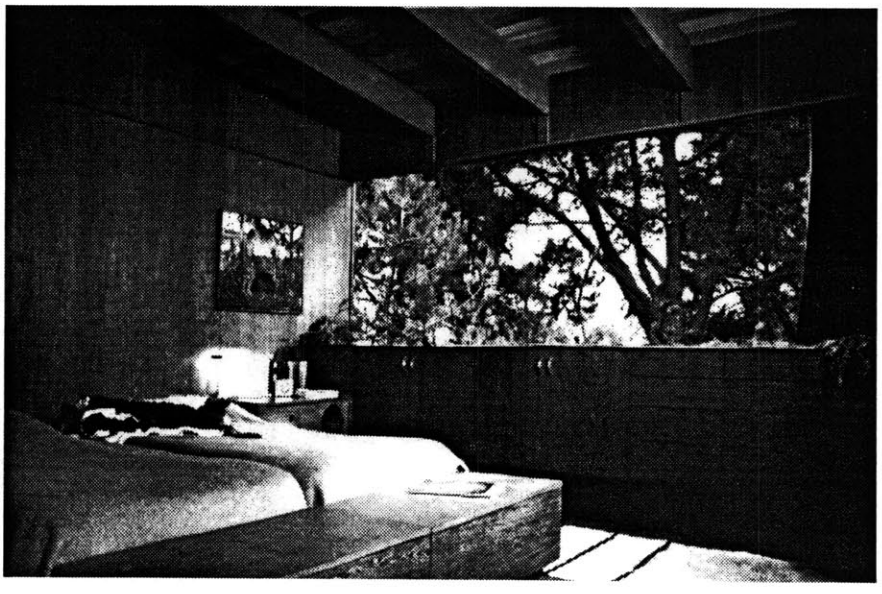
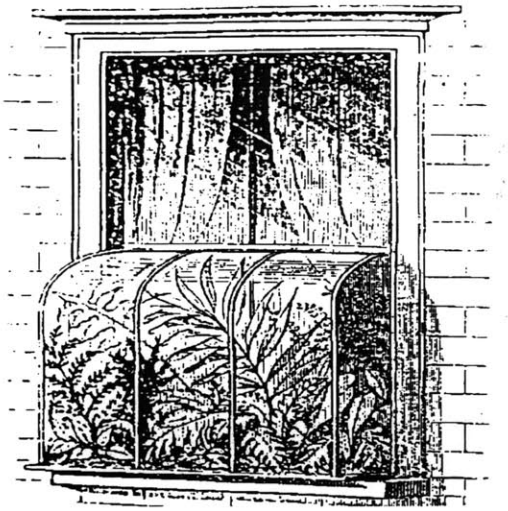


Figure 7.24:
Bedroom with view
Nesbit House, Los Angeles, CA
Richard Neutra, architect

Figure 8.1:
Hortus Fenestralis
Shirley Hibberd, 1865



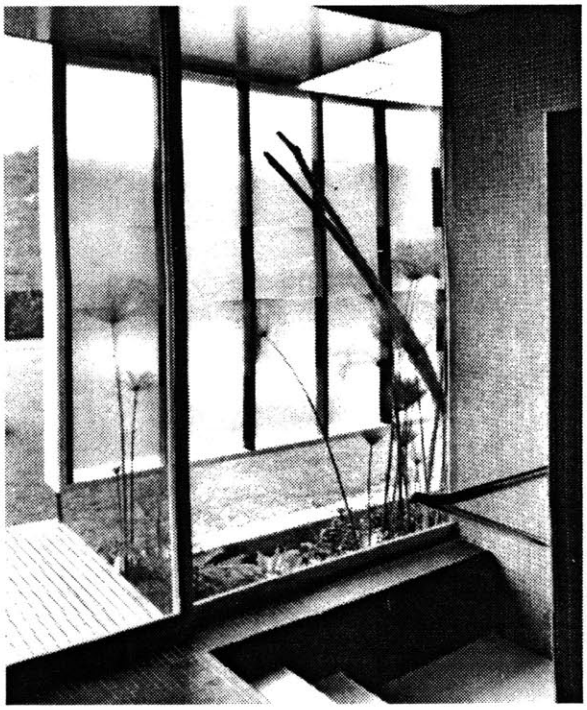


Figure 8.2:
"A contemporary equivalent of the Roman bath," with warm air, warm water and a "pleasant, private outlook." The translucent wall "gives a sense of privacy without eliminating distant view."
House in Los Angeles, CA
William Beckett, architect
(*Designs for Living*, 1953)

Figure 8.3:
Fallingwater, Mill Run, PA, 1936. Interior view, with rock, fire, and high-gloss, reflective floor finish.
Frank Lloyd Wright, architect

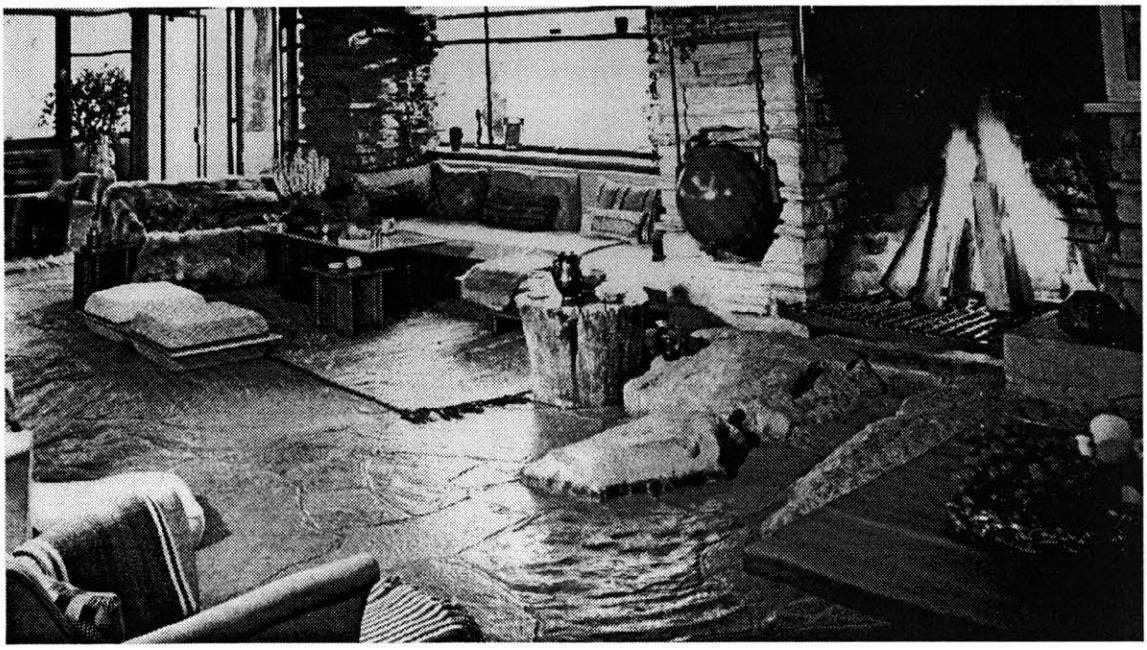
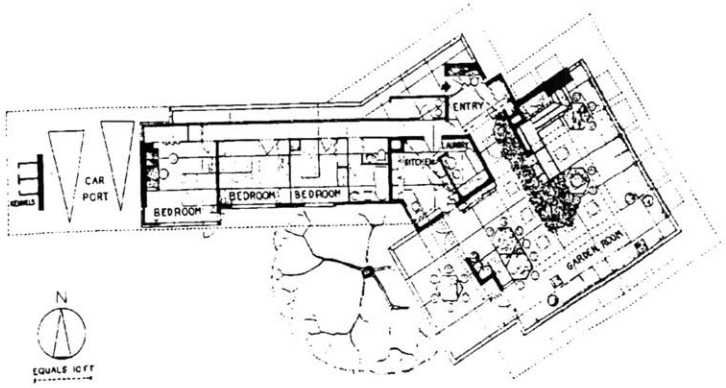


Figure 8.4:
"Tomorrow's Small House"
Frank Lloyd Wright, architect
(*Tomorrow's Small House*, 1945)



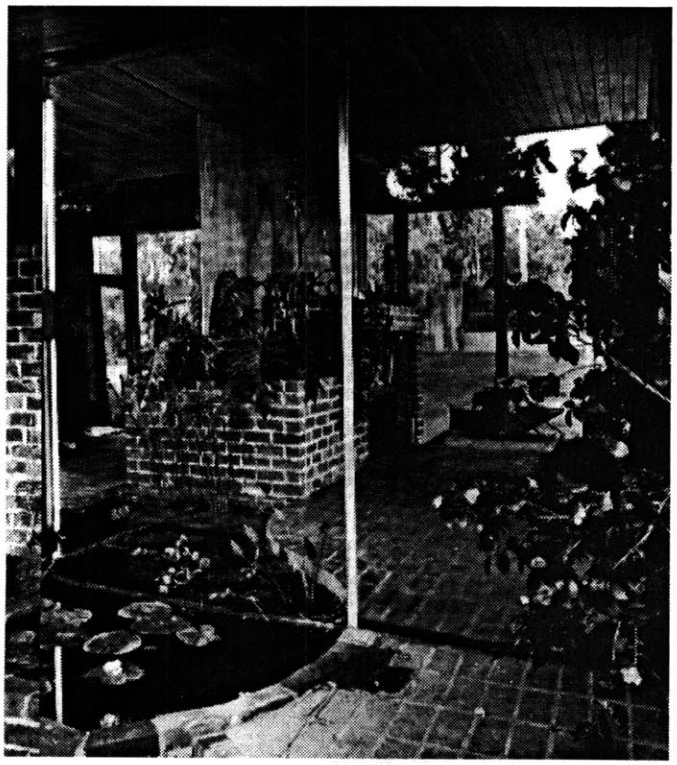


Figure 8.5:
Nesbit House, Los Angeles, CA, 1942
Entry
Richard Neutra, architect

Figure 8.6:
"Half-In Half-Out" Garden
in "what once was a stuffy old brownstone house."
George Kosmak and Ruth Gerth, architects
(*All About Modern Decorating*, 1942)

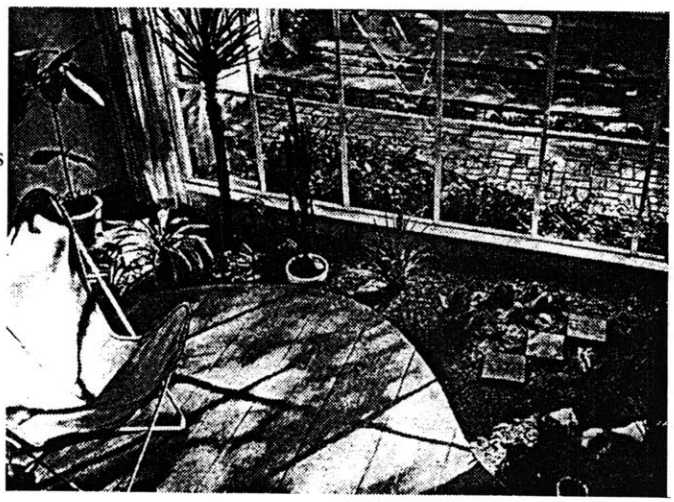
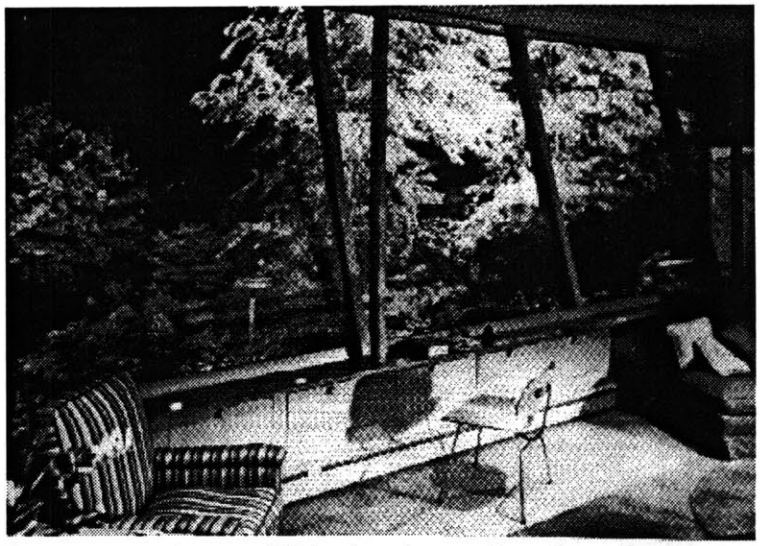
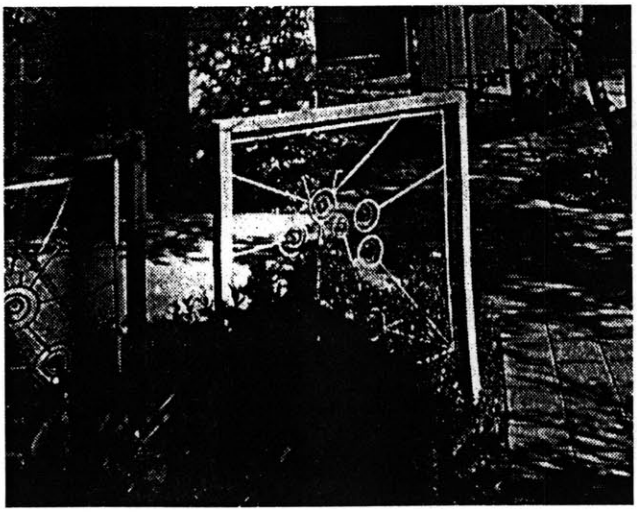


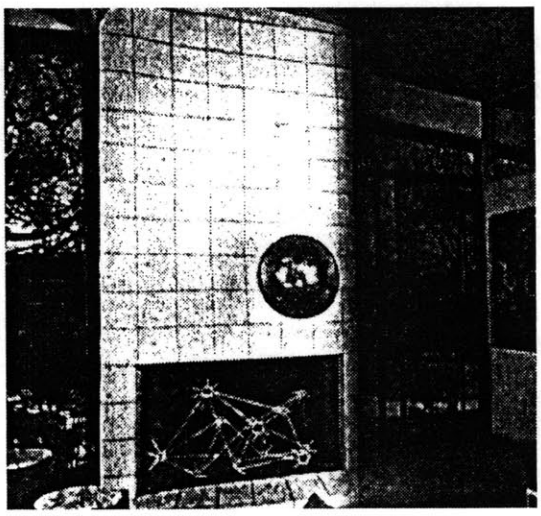
Figure 8.7:
"In spring, a view of coming things"
Two interior views
Welch House, Grand Rapids, MI
Kenneth Welch, architect
(*House and Home*, 1952)



Of a summer evening, a well-lighted outdoors and no glass reflection

Figures 8.8 and 8.9:
Iron work pattern at exterior railing repeated in fireplace in living room
Spec House for developer J.L. Eichler, Palo Alto, CA
(*Life*, 1945)





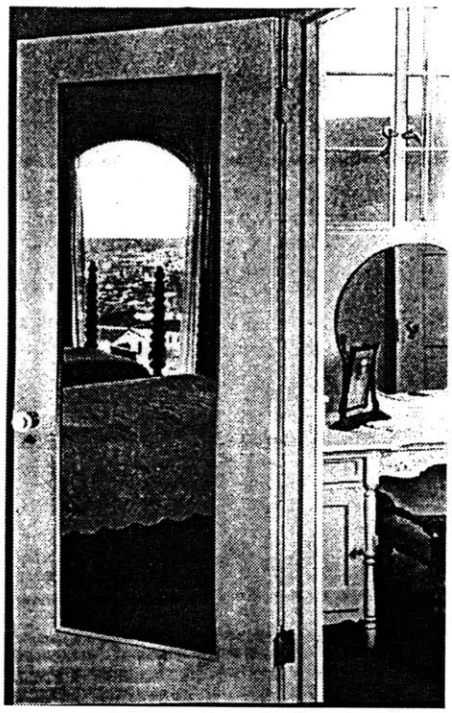


Figure 8.10:
"...generous use of glass makes the home more cheerful"
Libbey-Owens-Ford, advertisement
Door mirrors view through picture window
(*House Beautiful*, 1934)

Figure 8.11:
"Whichever wall you look at, you're enjoying natural beauty.
...faithfully reflects window and screening."
Pittsburgh Plate Glass, advertisement
(*House and Garden*, 1951)

Figure 8.12:
Tremaine House, Montecito, CA, 1948
Julius Shulman photograph into mirror at dining room
Richard Neutra, architect

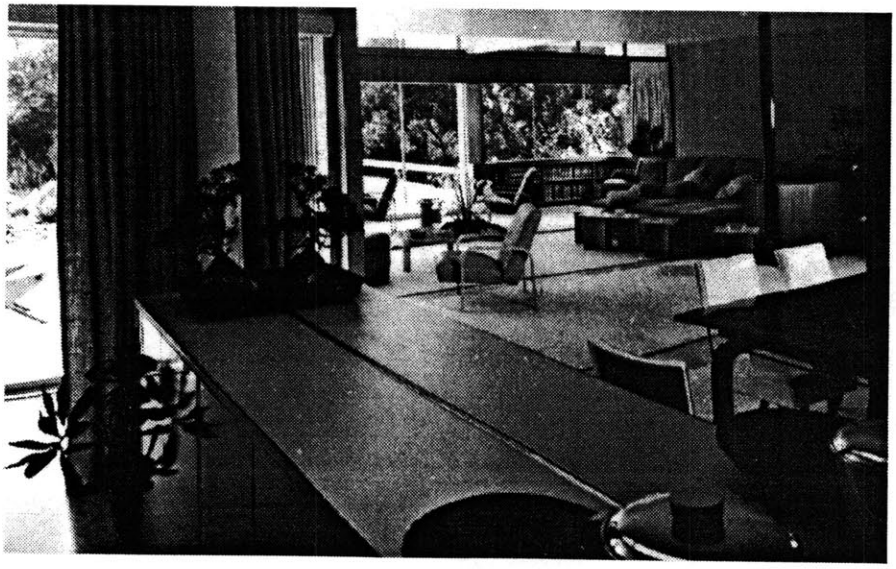


Figure 8.13:
Von Sternberg House, bathroom
Richard Neutra, architect
Note continous horizon line inside house

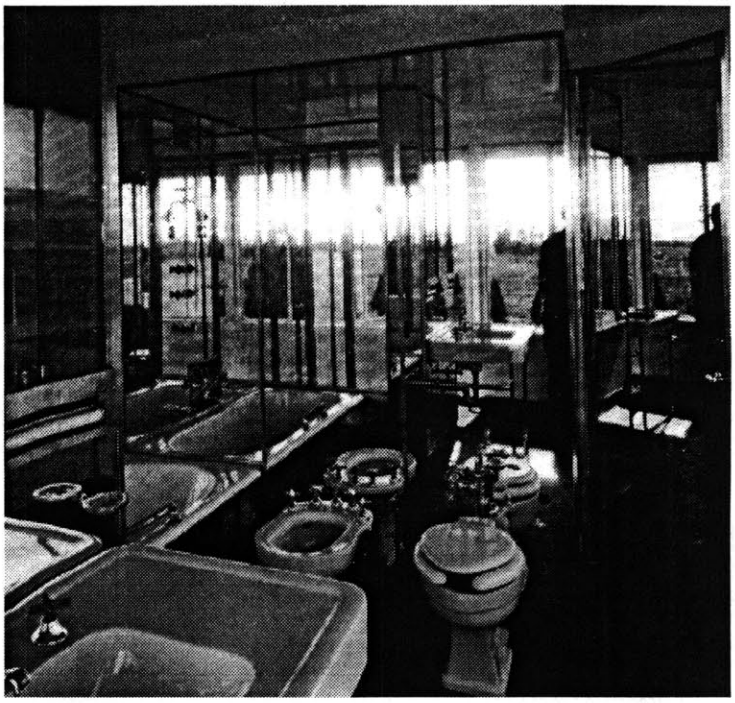


Figure 8.14:
"The Seasons" scenic wallpaper
early 19th century
Hanover, NH

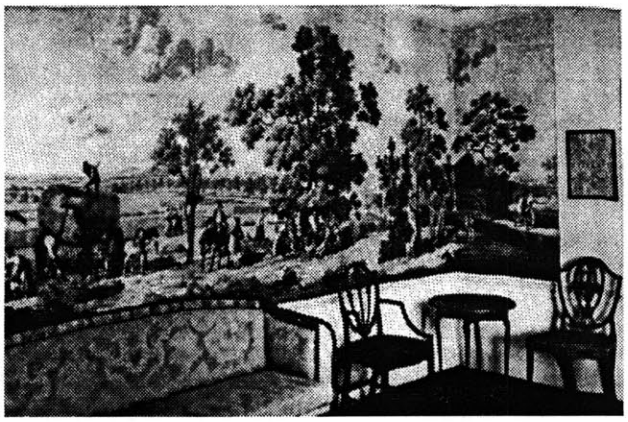


Figure 8.15:
Room like a tented pavilion
("Vanishing Walls," *Arts and Decoration*, 1937)

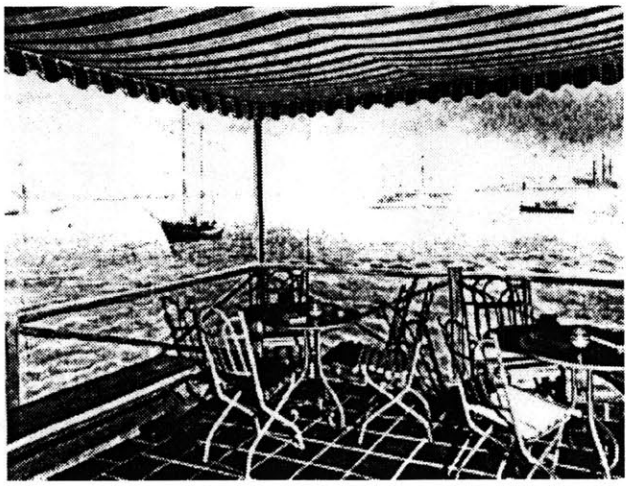


Figure 8.16:
"Panorama of Travel"
Folding Screen
Arts and Decoration, 1937)

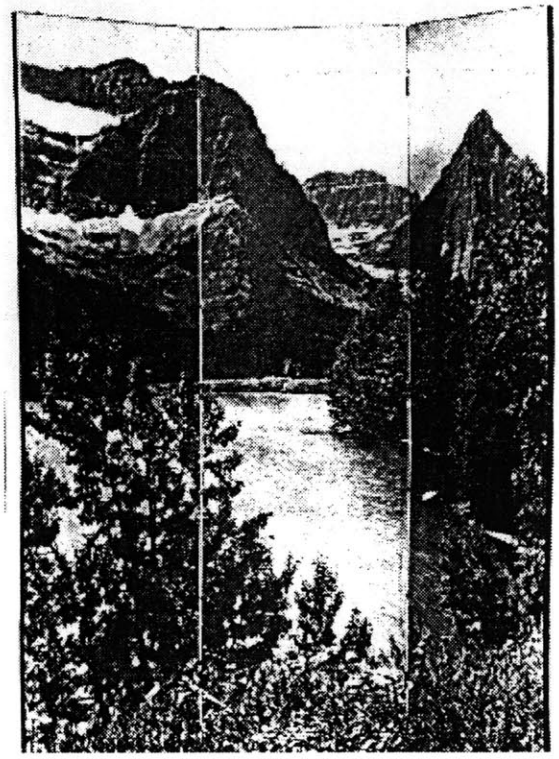
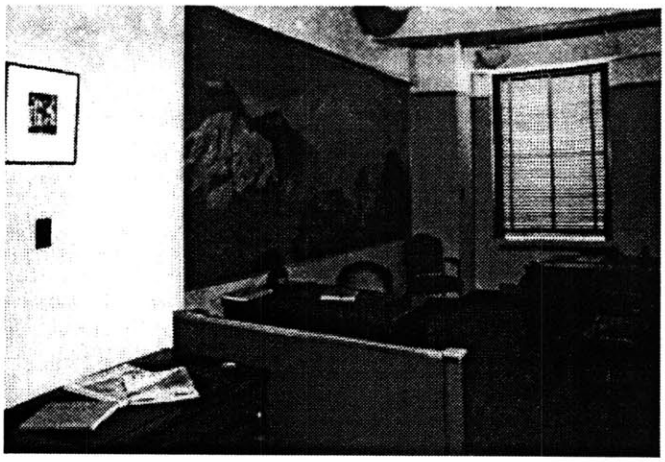


Figure 8.17:
"One of the great uses of photo-murals is in producing enlargements of actual scenes from nature. Such a feature is particularly appropriate in the office of a travel mural."
(*Elements of Interior Design and Decoration*, 1944)



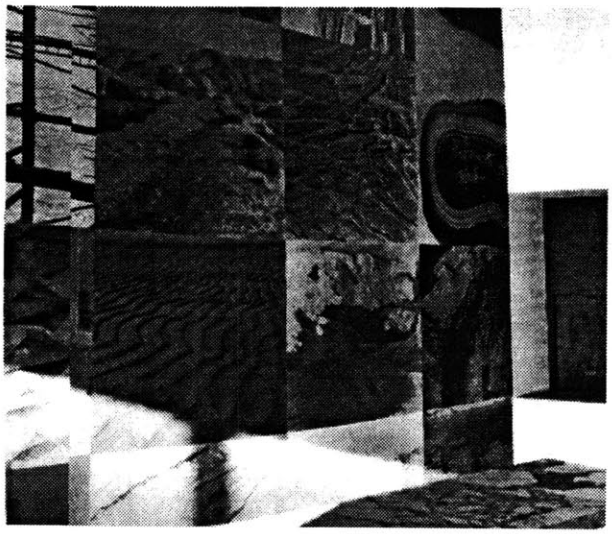


Figure 8.18:
Photo-mural, Swiss Pavilion, Paris, 1930-33.
Le Corbusier, architect
The theme is the camera itself and its ability to look into dimensions previously unseen. Photos heighten naturally ocurring patterns, which are then organized like specimens in a collector's cabinet, as if to recalibrate the surprising and expressive forms with the technical rationality that had stumbled across them.

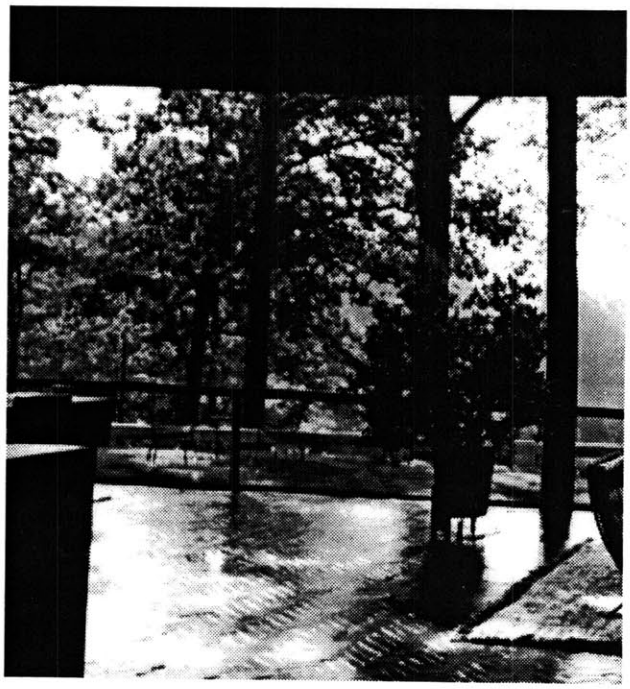


Figure 8.19:
"Look at my wallpaper."
Glass Pavilion, New Canaan, CT, 1949
Philip Johnson, architect

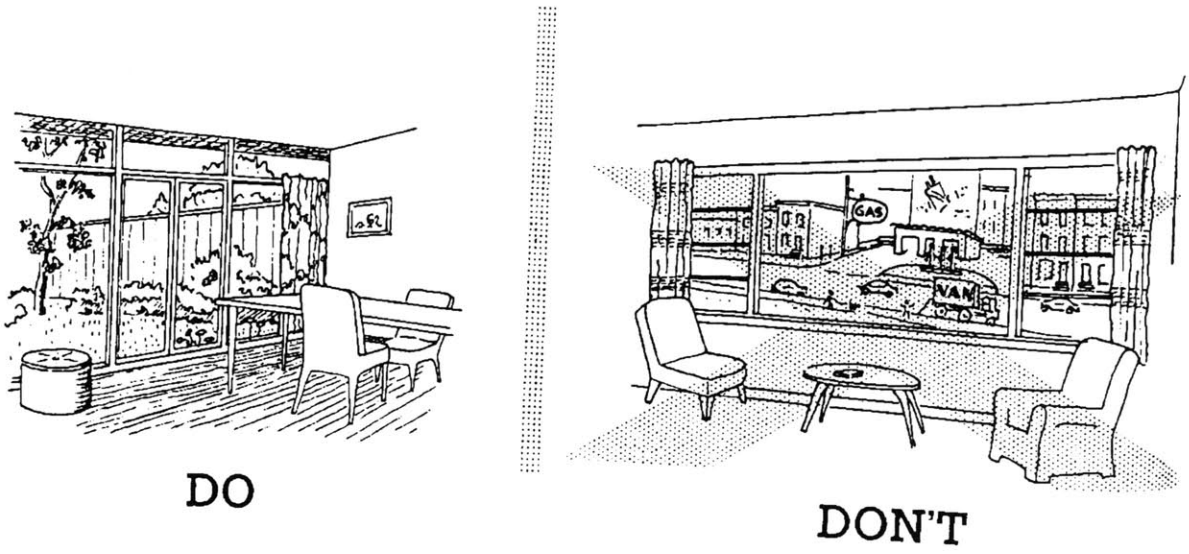


Figure 9.1:
Do open the inside to privacy and greenery outside; Don't look out over an urban street scene
Housing and Home Finance Agency, 1952

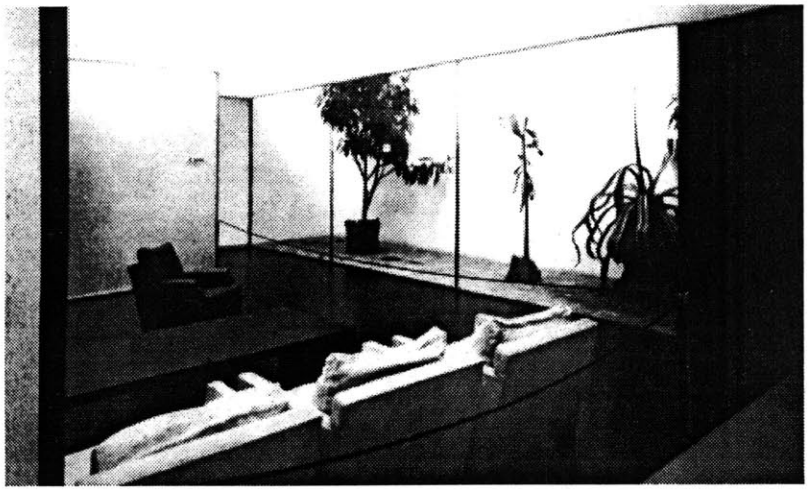


Figure 9.2:
Glass Room, Stuttgart Exhibition, 1927
Mies van der Rohe, architect
Walls of glass imply something to see

Figure 9.3:
"No matter where you live"
Liquid Propane Gas may be stored unseen on the site
(*Better Homes and Gardens*, 1956)

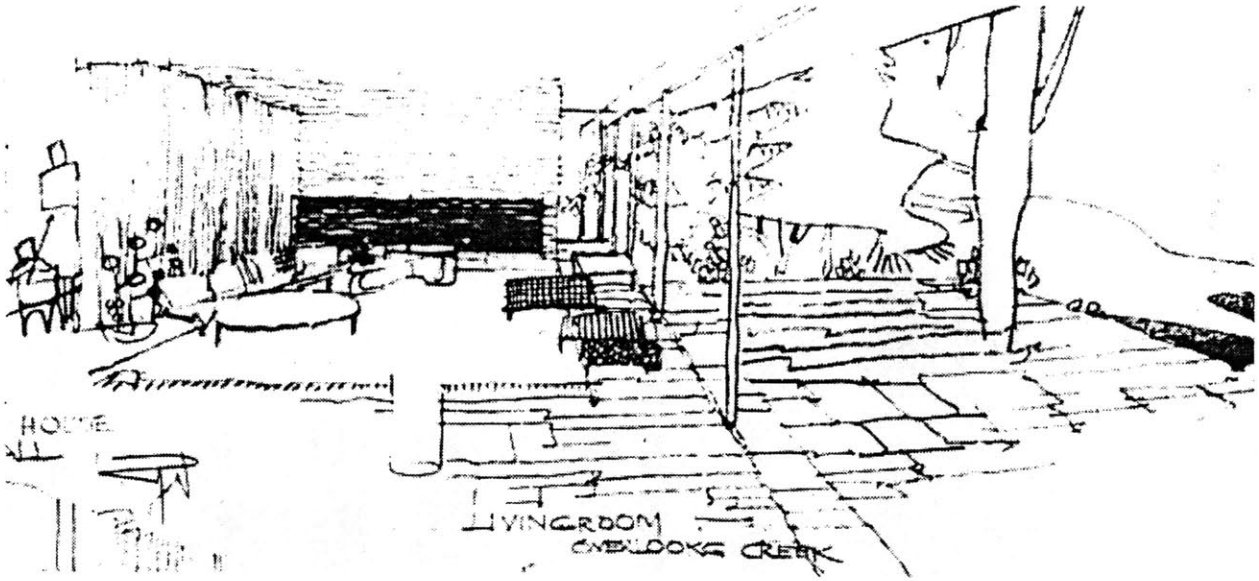
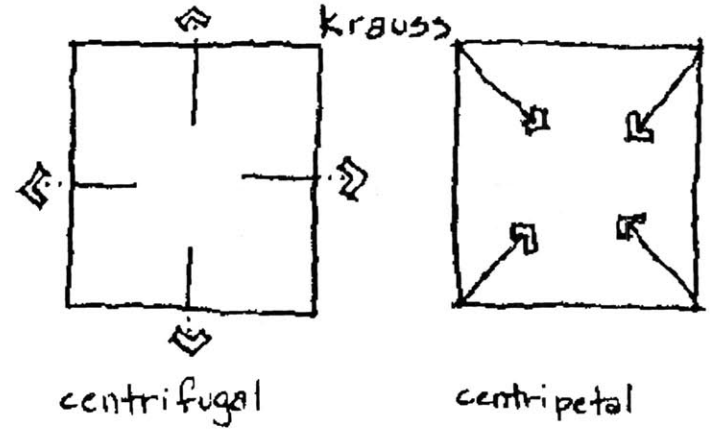


Figure 9.4:
House in Westport, CT, Richard Neutra, architect
(*Progressive Architecture*, 1958)
By commanding a view, a natural resource is transformed into a visual resource and the room, with its hyphenated name, is able to stretch its identity



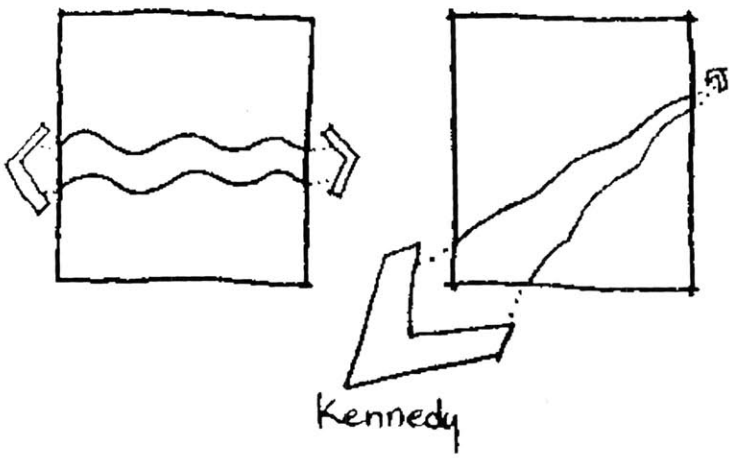


Figure 9.5:
This attempts to diagram the meanings of "centrifugal" and "centripetal" with respect to a frame, as they are discussed by authors Rosalind Krauss (regarding painting) and Robert Woods Kennedy (regarding the framing of views).

Figure 9.6:
Hofmann House, Hillsborough, CA, 1937
Bedroom
Richard Neutra, architect

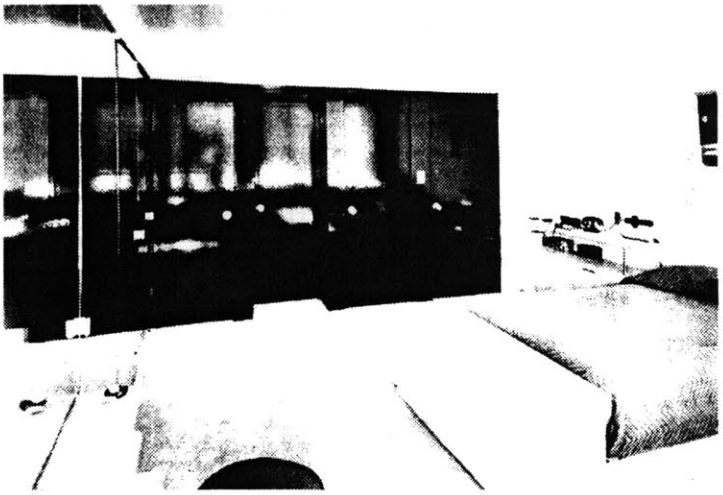
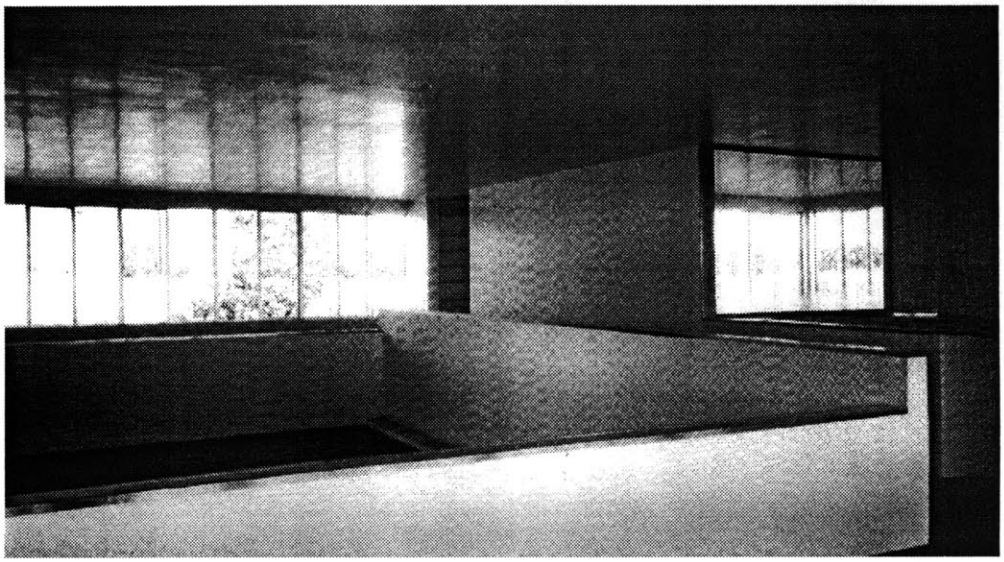


Figure 9.7:
von Sternberg House, San Fernando Valley, CA, 1935
Gallery
Richard Neutra, architect



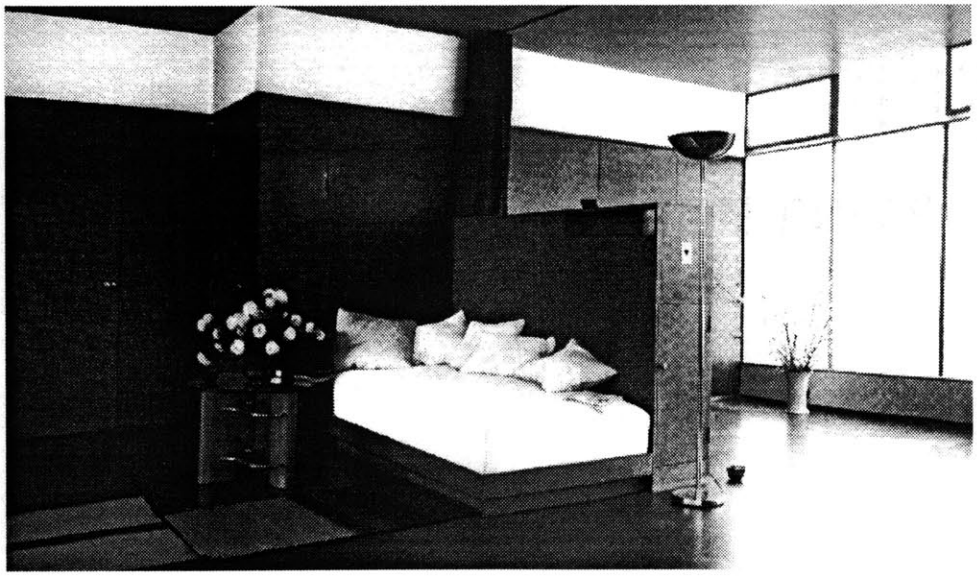


Figure 9.8:
Miller House, Palm Springs, CA, 1937
Sleeping area
Richard Neutra, architect

FIgure 9.11:
Hinds House, Los Angeles, CA, 1951
Richard Neutra, architect

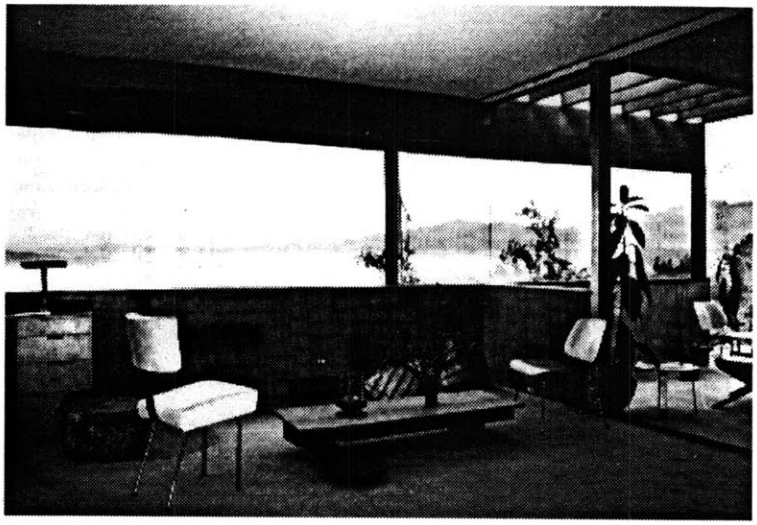


Figure 9.9:
Brown House, Fishers Island, NY
1938
Bedroom
Richard Neutra, architect

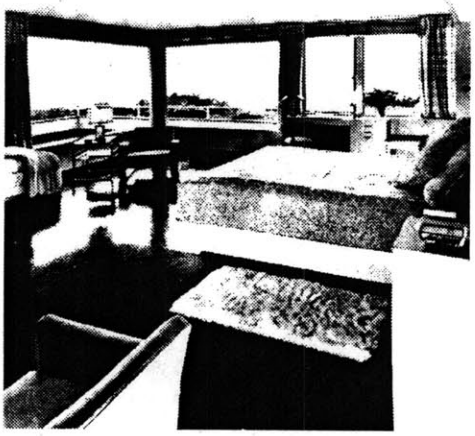


FIgure 9.12: Perkins House, Los Angeles, CA, 1955,
"Outrigger" and literal continuity. Richard Neutra, architect

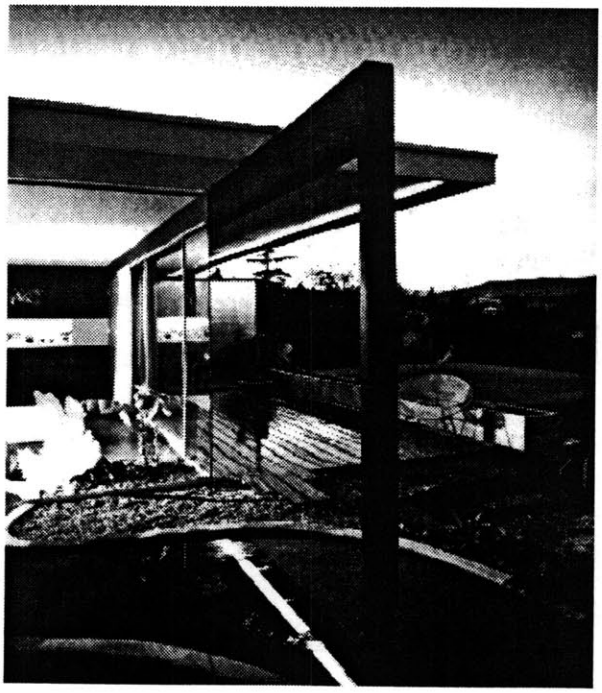


Figure 9.10:
Brown House, Fishers Island, NY, 1938
Stairhall
Richard Neutra, architect

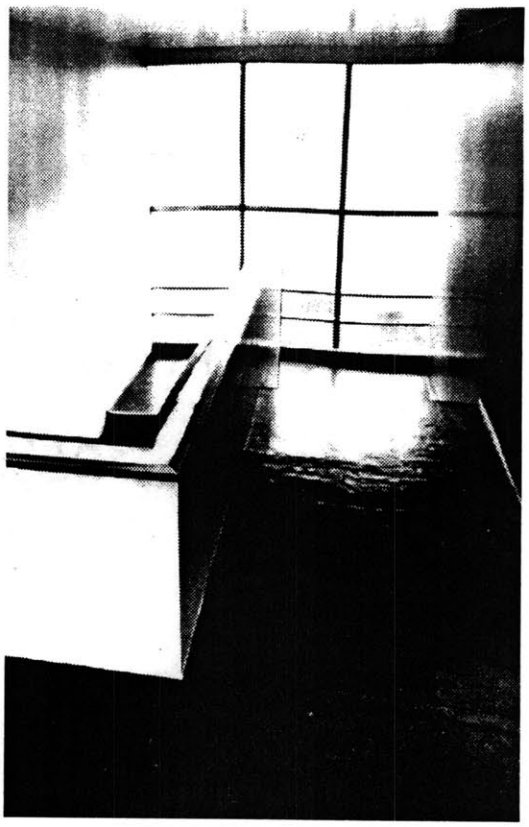


Figure 9.13:
Clark House, Orange, CT, 1949
Patio
Marcel Breuer, architect

Figures 9.14 & 9.15:
With frosted glass fronts, cabinets appear as windows on to goods seen through layers of atmosphere.
Residence in Beverly Hills, CA
Breakfast alcove
Allision & Rible, architects
(*Architectural Record*, 1949)

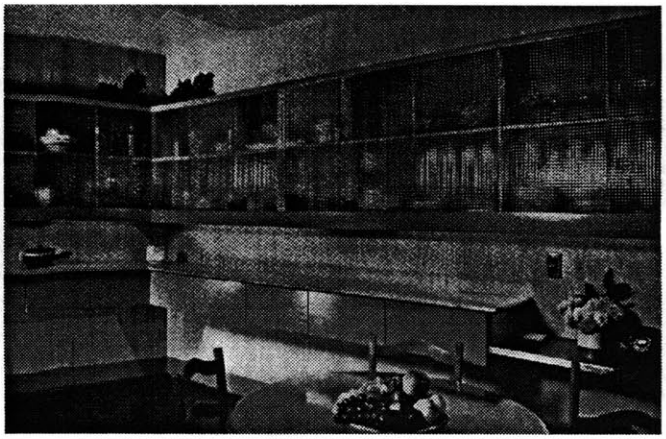
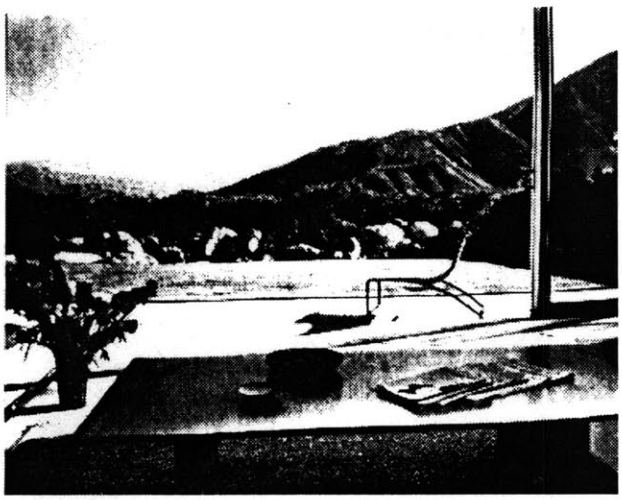
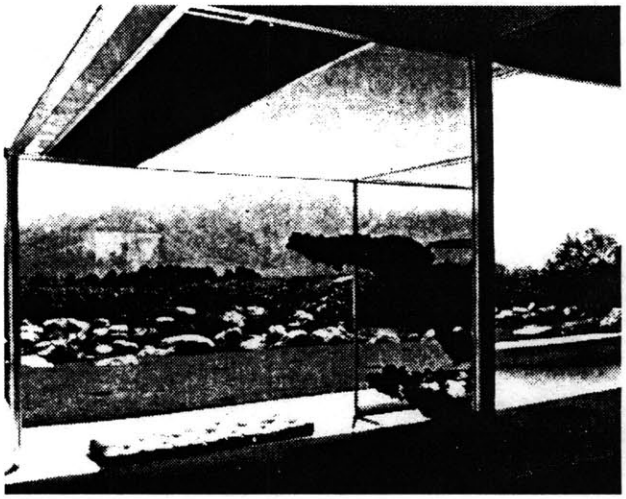


Figure 9.16:
Kaufmann House, Palm Springs, CA, 1946
View from living room
Richard Neutra

FIgure 9.17:
Kaufmann House, Palm Springs, CA, 1946,
Richard Neutra, architect
View enters bathroom with same velocity as the most public rooms of house





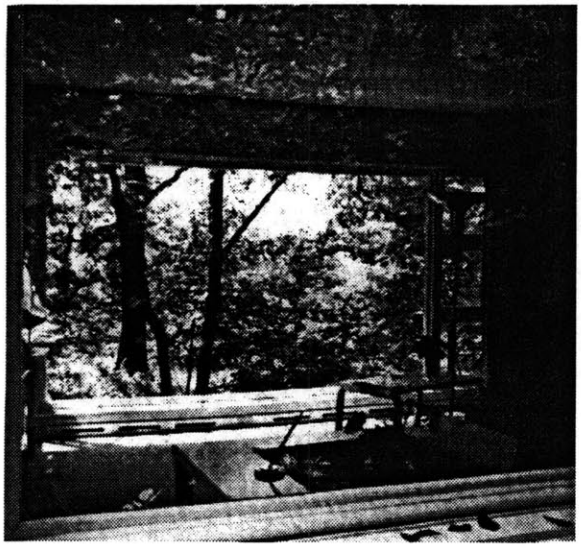
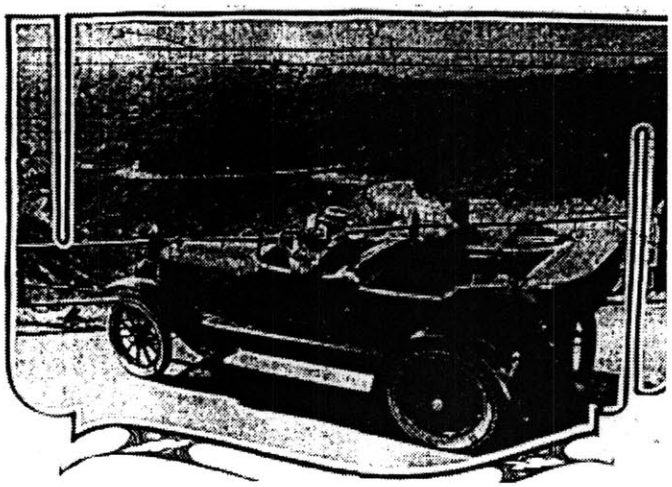
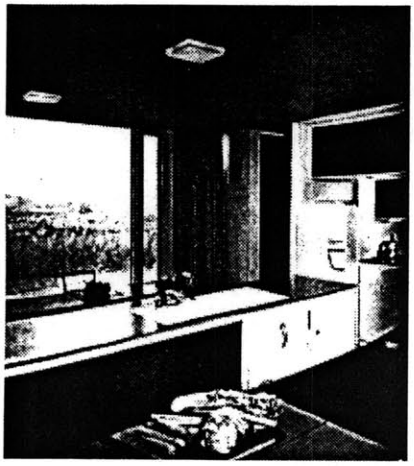


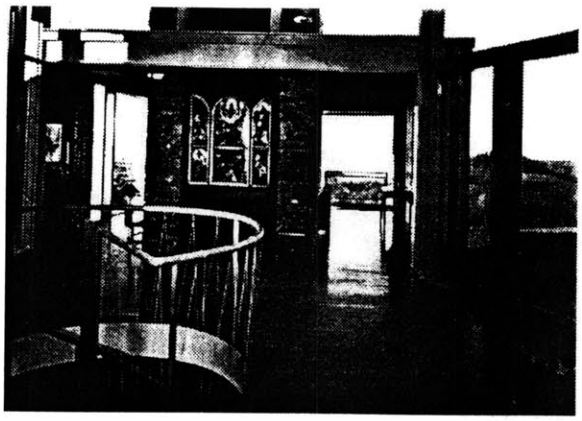
Figure 9.19:
"Inside and outside are in close relationship, and each viewpoint in the building offers the widest visible comprehension of space. Reflections and mirrorings, transparent and translucent building materials are carefully calculated and organized to focus divergent spatial vistas in one visual grasp."
House designed by George Keck
(*language of vision*, 1944)

Figure 9.18:
Car salesman "drives over the road on high for all his 'prospects.'"
(*Los Angeles Sunday Times*, 1917)





Figures 9.20-9.22:
"The idea of the trefoil plan was developed to break the magnificent panoramic view of the Hudson River Valley into sections . . . The various rooms then each take a different angle of view, similar to the multi-angle of cannon fire developed in the fortress of the 16th century."
Kitchen with view, entry hall, exterior
John Johansen, architect, (*Architectural Record*, 1956)



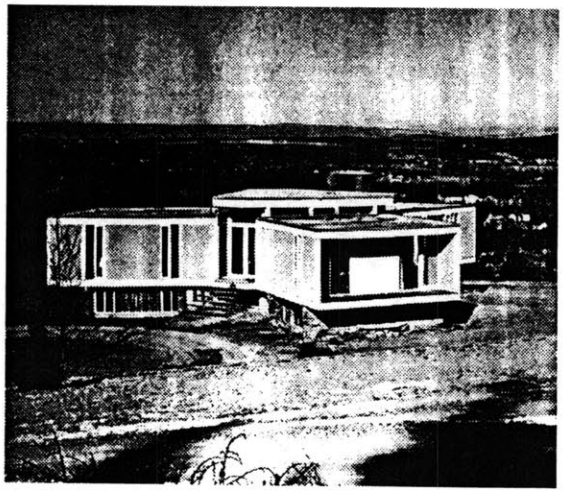
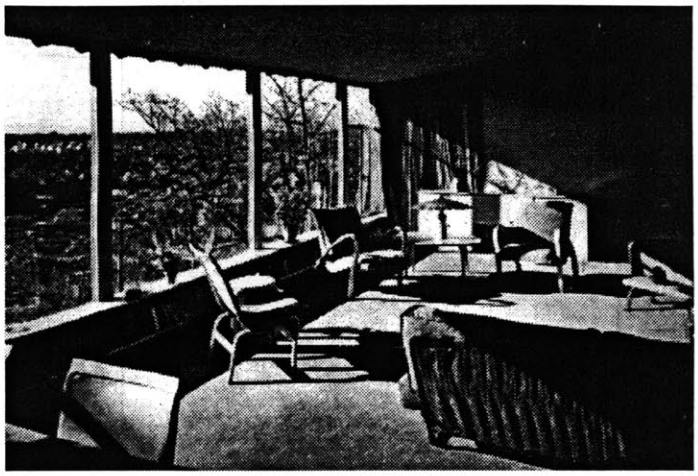


Figure 9.23:
"The house is literally invaded by nature," with its "plant-window," exposed ledge at hearth, and view.
House in Belmont, MA
Carl Koch, architect
(*What is Modern Architecture?*, 1942)



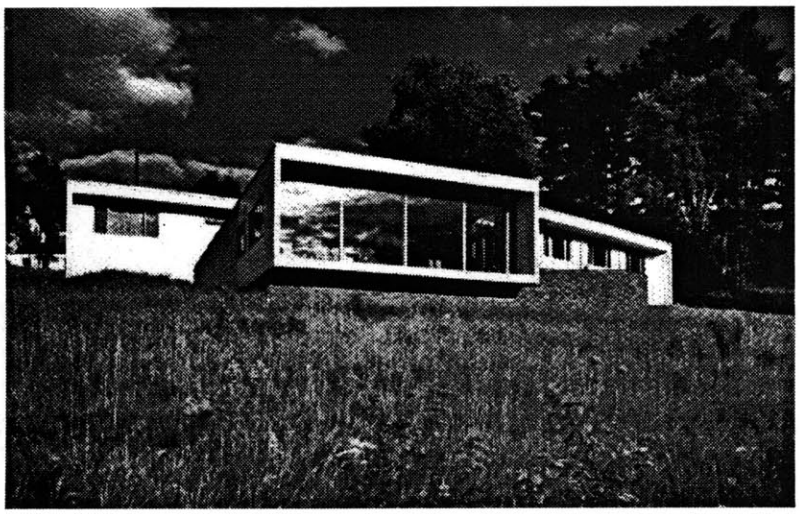
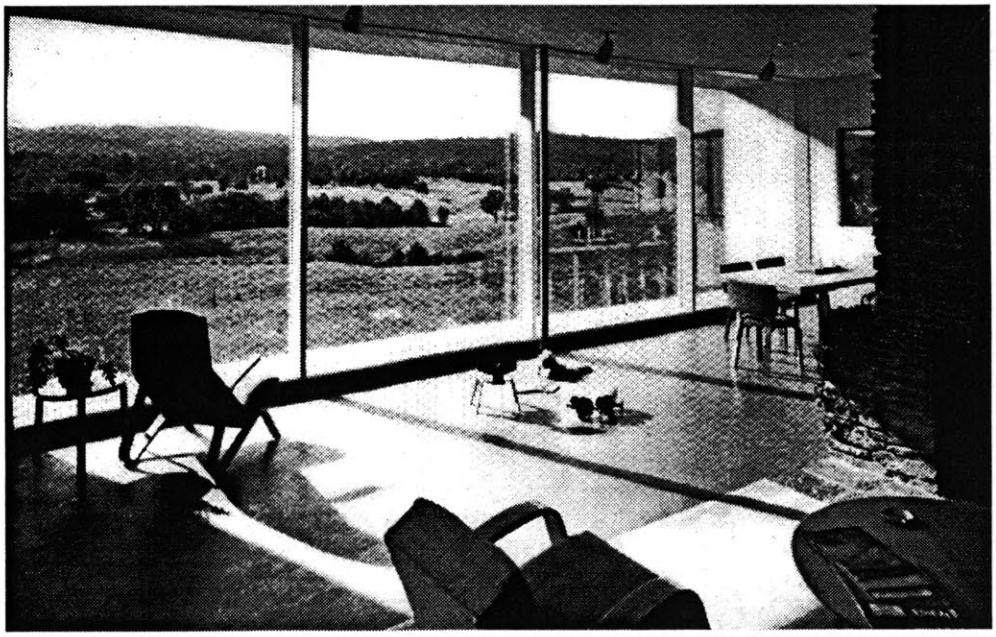


Figure 9.24:
Murtagh House, Hanover, MA
E.H. & M.K. Hunter, architects
Exterior
(*Designs for Living*, 1955)

Figure 9.25:
Murtagh House, Hanover, MA
E.H. & M.K. Hunter, architects
Interior
(*Designs for Living*, 1955)



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1.4	"Improving the Outlook," *New York Times Magazine* (31 May 1942)
1.5	Beach House, East Orange, NJ, Nelson and Wright, *Tomorrow's House* (1945)
1.6	Poetker House, Cincinnati, OH, Architectural Record, *82 Distinctive Houses* (1952)
1.7	Lehmann House, Seattle, WA, Graf and Graf, *Practical Houses for Contemporary Living* (1953)
1.8	Concrete Block House, New England, Gillies, *McCall's Book of Modern Houses* (1951)
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1.12	Thomas House, Mt.Desert, ME, Ford and Ford, *The Modern House in America* (1940)
1.13	Ekdale Residence, Palos Verdes, CA, Architectural Record, *82 Distinctive Houses* (1952)
1.14	Ekdale Residence, Palos Verdes, CA, Architectural Record, *82 Distinctive Houses* (1952)
1.15	View Diagrams, *Life* (May 1945)
1.16	Ausenbaum/Parker House, Orinda, CA, Creighton and Ford, *Contemporary Houses Evaluated by their Owners* (1961)
1.17	"House for a Professor" design problem, 1946, MIT Archives
1.18	Kirby House, Belvedere, CA, Ford and Creighton, *The American House Today* (1951)
1.19	Weekend House, Jefferson County, MO, Ford and Creighton, *The American House Today* (1951)
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1.23	Fireplace and View, Schubart and Friedman, architects, *Architectural Record* (December 1954)
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1.25	Three Views, *House and Home* (September 1954)
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2.2	Traditional windows, Goodnow, *The Honest House* (1914)
2.3	Window overlooking San Francisco, *House and Garden* (June 1927)
2.4	Window from Mitchison House, *House and Garden* (June 1927)
2.5	Advertisement for Angeles Mesa, *Los Angeles Times* (11 May 1919)
2.6	View of river, *House Beautiful* (March 1935)
2.7	Real estate advertisements, *Architectural Record* (February 1931)
2.8	Advertisement for *New York American, House Beautiful* (April 1935)
2.9	Lovell House, Los Angeles, CA, Hines, *Richard Neutra* (1982)
2.10	Tavernite House, Seattle, WA, Graf and Graf, *Practical Houses for Contemporary Living* (1953)
2.11	Kitchen, Nelson and Wright, *Tomorrow's House* (1945)
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2.14	Advertisement for Ceco Engineering, *House and Home* (October 1952)
2.15	Advertisement for Formica, *National Real Estate and Building Journal* (June 1952)
3.1	Picture window, *House and Garden* (September 1996)
3.2	Picture window cartoon, Funaro, *Windows in Modern Architecture* (1948)
3.3	Picture window, *House Beautiful* (January 1950)
3.4	Poland Spring clubhouse, *American Architect and Building News* (January 1889)
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3.10 Advertisement for Plate Glass Manufacturers of America, *House Beautiful* (April 1926)
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3.12 Advertisement for Libbey-Owens-Ford, *House Beautiful* (June 1933)
3.13 Advertisement for Libbey-Owens-Ford, *House and Garden* (May 1934)
3.14 Glass skyscraper model, Johnson, *Mies van der Rohe* (1947)
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7.7 Lovell House, construction photograph, Los Angeles, CA, Drexler, *The Architecture of Richard Neutra*

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7.8 Lovell House, exterior view, Los Angeles, CA, Drexler, *The Architecture of Richard Neutra* (1982)
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