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Demonstrating Modernism: Richard Neutra's Early Model Houses

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by

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Introduction

The emperor's palace is in the centre of the city where the two great streets meet. It is enclosed by a wall of two feet high, and twenty feet distance from the buildings. I had his majesty's permission to step over this wall; and, the space being so wide between that and the palace, I could easily view it on every side.¹

- Jonathan Swift, *Gulliver's Travels*, 1726

A photograph of architect Richard Neutra within the model home exhibition called "Modeltown" at the 1935-36 Californian-Pacific International Exposition (CPIE) in San Diego stimulated this thesis in its early stages (Fig. 1). Like a modern day Gulliver in the diminutive country of Lilliput, the architect stands hovering over his scale model. Lilliputian-sized potted plants add to the illusion of Neutra's model, while the actual landscape of Balboa Park dwarfs the architect. The sleek, reflective surfaces and flat roof of his modernist design contrasts sharply against the stucco exterior and pitched, tile roof of the Spanish Revival model in the distance. From this photograph, I began to investigate Neutra's production of model houses as well as larger questions about architecture, representation and vision in the twentieth century.

Born in Vienna in 1892, Neutra has attained a monumental presence in the history of modern architecture in California. After immigrating to the United States in 1923, he stayed briefly in New York, Chicago and Wisconsin before moving to California in 1925. California served as his home and professional base for the remainder of his career.

Historian Thomas Hines's 1982 book, *Richard Neutra and the Search for Modern*

¹ Jonathan Swift, *Gulliver's Travels*, 1892 George Bell and Sons edition (1726; Project Gutenberg, 2009), chap. 4.



Figure 1. Richard Neutra standing near his model at the Californian-Pacific International Exposition (CPIE) in San Diego, 1935.

Architecture, was the first comprehensive biography of Neutra's life in both Europe and California and his prolific oeuvre.² Hines's writings on Neutra serve as an invaluable foundation for subsequent writings on the architect's work that have flourished in recent decades. In discussing Neutra's houses from the 1930s, Hines has asserted that the architect's "interest in the small, low-cost house and his penchant for both experiment and promotion led in the thirties to several significant 'model house' schemes," further commenting that Neutra "delighted in designing model houses to be sponsored by popular as well as professional magazines."³

The thesis presented here concerns six model houses Neutra designed between 1923 and 1946: the 1923 Zehlendorf Housing Project for developer Adolf Sommerfeld, a model house for the Vienna Werkbund's 1932 housing exposition, the scale-model house for the San Diego World's Fair (1935), the Plywood Demonstration House for the California House and Garden Exposition (1936), and the Alpha (1945) and Omega

² Thomas Hines, *Richard Neutra and the Search for Modern Architecture* (New York: Oxford University Press, 1982). Also see Hines, "Chapter 6: California Calls You: The Brave New World of Richard Neutra, 1892-1932," in *Architecture of the Sun: Los Angeles Modernism, 1900-1970* (New York: Rizzoli, 2010), 266-315. Neutra published an autobiography, *Life and Shape* (New York: Appleton-Century-Crofts, 1962). Additional biographical sources consulted for my project include Willy Boesiger, ed., *Richard Neutra, Buildings and Projects* (New York: Praeger, 1966); Barbara Mac Lamprecht's *Richard Neutra: The Complete Works* (New York: Taschen, 2000) and *Richard Neutra: Survival Through Design* (Köln: Taschen, 2004); Esther McCoy's *Richard Neutra and the Search for Modern Architecture* (New York: Braziller, 1960) and *Vienna to Los Angeles: Two Journeys* (Santa Monica: Arts and Architecture Press, 1979); and Dione Neutra, ed., *Richard Neutra, Promise and Fulfillment, 1919-1932: Selections from the Letters and Diaries of Richard and Dione Neutra* (Carbondale: Southern Illinois University Press, 1986).

³ Hines, "Case Study Trouvé: Sources and Precedents, Southern California, 1920-1942," in *Blueprints for Modern Living: History and Legacy of the Case Study Houses*, ed. Elizabeth A.T. Smith (Cambridge: MIT Press, 1989), 94.

Houses (1946) for the Case Study House program.⁴ The model houses that I have chosen to analyze were created for a period of public exhibition. Model homes, replete with model rooms, have long been a subject of art historical attention, having first prominently appeared at London's 1851 Great Exhibition.⁵ In his summary of the development of model rooms and houses as a "discrete, definable type," critic Martin Filler has noted that sites of display, such as world fair's or exhibitions of modern buildings, lent the model specific critical meaning.⁶ The function of model rooms was to instruct the public, and their didactic role easily served modernism's social aims to improve society.⁷

Traditionally displayed in public locations, they represent junctures of both social and artistic ideals. Architectural historian Helen Searing has defined the meaning of "model house" as different from another popularly used term to describe housing prototypes: the "demonstration dwelling."⁸ Searing argues that the term "model house" can be applied to the units on display at American world's fairs concerned with selling consumer goods. The term "demonstration (or model) dwelling," on the other hand, is

⁴ For general approaches to the examination of individual housing projects, I consulted Dietrich Neumann, ed. *Richard Neutra's Windshield House* (New Haven: Yale University Press, 2001) and Stephen Leet, *Richard Neutra's Miller House* (New York: Princeton Architectural Press, 2004).

⁵ Martin Filler, "Rooms Without People: Notes on the Development of the Model Room," *Design Quarterly*, no. 109, Walker Art Center (1979), 4.

⁶ Ibid.

⁷ Filler, 9-10.

⁸ Helen Searing, "Case Study Houses: In the Grand Modern Tradition," in *Blueprints for Modern Living: History and Legacy of the Case Study Houses*, ed. Elizabeth A.T. Smith (Cambridge: MIT Press, 1989), see note 6.

associated with European *Werkbund* housing expositions and invested with a “socially idealistic dimension.”⁹ By contrast with Searing, I adopt the broad use of the term “model house,” in its representational sense, to emphasize the medium itself as a method for displaying architectural ideas. The model house, as I will argue, is not simply a consumerist sales tool, but a complex form of representation important to critical cultural reflection.

This trend toward presentation of the model house ultimately reveals a broader professional concern by architects over *how* to demonstrate modern architecture to the public. In terms of Neutra’s own work, he used the word “demonstration” to describe several projects, including the steel-framed Lovell Health Demonstration House (1927-1929) as well as the Plywood Demonstration House.¹⁰ In his examination of the Lovell Health Demonstration House, Hines noted, “It followed logically that in order to be ‘demonstrative,’ the house had to be explicated and seen.”¹¹

This thesis offers a critical examination of the term “demonstration” as it relates to model houses. The term, while cursorily present in histories of modern architecture and experimental designs, has not been defined in depth. I adopt a practical definition in

⁹ Ibid.

¹⁰ While open for a period of time to the public, I have chosen to focus on Neutra’s “client-less” houses, allowing for theoretical concepts concerning the small, single-family house to surface. As such, I discuss Neutra’s large, costly hillside house built for physician and naturopath Dr. Philip Lovell between 1927-1929, more commonly known as the Lovell Health Demonstration House, only peripherally. Lovell’s involvement with the health program for the house also places it outside of the purview of my examination. The house has been extensively examined elsewhere, see Hines, *Richard Neutra and the Search for Modern Architecture*.

¹¹ Hines, “Case Study Trouvé,” 87.

order to unpack ways in which modernist architectural ideas that promoted bold technological forms and new ways of living were explained in didactic terms to twentieth century audiences that were intended to both understand and consume these forms. The *New Oxford American Dictionary* defines “demonstration” as “the action or process of showing the existence or truth of something by giving proof or evidence.”¹² It is defined additionally as “a practical exhibition and explanation of how something works or is performed.”¹³ Demonstration, I will argue, encompasses a range of representational media and tools for ordering the process of observation carried out by the contemporaneous viewer of modern architecture. Demonstration also denotes the presence and participation of an audience.

Neutra’s work has traditionally been divided by scholars into two periods: an early period of the 1920s and 1930s in which he was interested in methods of prefabrication and the use of new technological materials, and a later, postwar period that is less concerned with technological innovations.¹⁴ Scholars have largely used Neutra’s 1954 book, *Survival Through Design*, to analyze this later period.¹⁵ Architectural

¹² Erin McKean, ed., *New Oxford American Dictionary* (New York: Oxford University Press, 2005), electronic edition.

¹³ Ibid.

¹⁴ See Arthur Drexler and Hines, *The Architecture of Richard Neutra: From International Style to California Modern* (New York: Museum of Modern Art, 1982) and William Jordy, “The International Style in the 1930s,” *Journal of the Society of Architectural Historians* vol. 24, no. 1 (March 1965): 6-10. Jordy argues that this break occurred in 1937.

¹⁵ Richard Neutra, *Survival Through Design* (New York: Oxford University Press, 1954). Neutra argues that the twentieth century individual is under constant threat of suffering “disastrous effects” brought on by the conditions of an increasingly urban environment. Neutra promoted the concept that architects should design therapeutically for all the senses.

historian Sylvia Lavin argues that Neutra's postwar domestic architecture is characterized by a psychoanalytic approach to design that took into account the psychological and physiological needs of the mid-century user.¹⁶ Lavin's text marks a turning point in Neutra scholarship that reexamines processes of audience or user perception in Neutra's houses or buildings.¹⁷

Art historian Todd Cronan argues that this strict chronological divide, however, has hindered an examination of the architect's work.¹⁸ Cronan proposes, instead, a spanning analysis of Neutra's design approach. He argues that "Neutra's underlying commitment was to the user of his designs rather than the autonomy of the structures themselves. It is this sustained commitment to the user, either as an interactive participant or as someone to be psychoanalytically treated, that risks instrumentalizing his practice."¹⁹ While Cronan's study, in its assertion that Neutra designed with a commitment to creating an "interactive participant,"²⁰ provides a useful framework for this thesis, it is limited in its insistence on a strict dichotomy between a practice of design that either accounts for the consumer *or* for aesthetics.

¹⁶ See Sylvia Lavin, "Open the Box: Richard Neutra and the Psychology of the Domestic Environment," *Assemblage*, no. 40 (Dec. 1999): 6-25 and *Form Follows Libido: Architecture and Richard Neutra in a Psychoanalytic Culture* (Cambridge, MA: MIT Press, 2004).

¹⁷ Lavin, "Richard Neutra and the Psychology of the American Spectatorship," *Grey Room*, no. 1 (Autumn, 2000), 42-63.

¹⁸ Todd Cronan, "Danger in the Smallest Dose": Richard Neutra's Design Theory," *Design and Culture*, vol. 3, no. 2 (July 2011), <http://www.designstudiesforum.org/journal-articles/danger-in-the-smallest-dose-richard-neutras-design-theory/>

¹⁹ *Ibid.*

²⁰ *Ibid.*

Architectural historian Sandy Isenstadt argues, “Technology remained pivotal for Neutra, only his focus had changed from the technology of construction to the technology of perception, a consumer aesthetics founded on his readings in physiological and social psychology.”²¹ While Isenstadt insightfully reveals ways in which technologies of construction and design are closely linked to the consumer market, he further isolates consumer psychology from Neutra’s early interest in technology and form. He argues, “Neutra’s prewar focus on technical matters prevailed over what was as yet a merely casual interest in consumer psychology. Until the 1940s, he remained a leading spokesman for the modernist mandate that architecture be made formally commensurate with the industrial production of its parts.”²²

Lavin, Isenstadt, and Cronan rely on *Survival Through Design* as a source to explain the phases of Neutra’s oeuvre. As Neutra’s manifesto, the book has had a profound impact on the reading of his work, but it has cast an unfortunate shadow over his early investigations into “the needs of the user” or consumer. In what follows, I propose an overdue examination of Neutra’s design process as it relates to the user, before it was codified and elaborated in his later writings and practice. Instead of relying on *Survival Through Design*, I will attempt to reinsert Neutra’s houses into their original

²¹ Sandy Isenstadt, “Richard Neutra and the Psychology of American Consumption,” in *Anxious Modernisms: Experimentation in Postwar Architectural Culture*, ed. Sarah Williams Goldhagen and Réjean Legault (Cambridge: MIT Press, 2000), 98.

²² *Ibid.*, 100.

contexts of display within mass culture in order to offer alternative answers for Neutra's design approach and relationship to the consumer.²³

In an important interview from 1937, Neutra charts the fluid relationship between the consumer and the architect, and his experiences with this process since his arrival in the United States. He states, "The consumer of that commodity—housing—must be educated to the new qualities and economies," further stating that an architect, "talks and sketches in a confidence inspiring manner. Therefore his talking and drawing will be varied to suit his many different audiences. *But* the architect is neither a drafting artist nor a talking orator. He must be very adjustable, yet stick to his convictions."²⁴ Neutra saw the role of the architect as that of an interpreter that responds to consumer demands.

His assertion that the consumer had to be "educated" to the new architecture through the design process also reveals an important comment on how he understood the process of viewing architecture.²⁵ Art historian Jonathan Crary argues that "ideas about perception and attention were transformed in the late nineteenth century alongside the emergence of new technological forms of spectacle, display, projection, attraction, and

²³ Gabrielle Esperdy's discussion of modernization as a process that reflects a direct relationship between prewar modernist architecture and consumerism has been influential in my analysis of Neutra's model houses and the framework of demonstration. See *Modernizing Main Street: Architecture and Consumer Culture in the New Deal* (Chicago: University of Chicago Press, 2008). Andy Shanken's writings on architecture, advertising and consumerism have also assisted in my developing of these ideas, see "Breaking the Taboo: Architects and Advertising in Depression and War," *Journal of the Society of Architectural Historians*, vol. 69, no. 3 (September 2010): 406–29 and "From the Gospel of Efficiency to Modernism: A History of Sweet's Catalogue, 1906–1947," *Design Issues*, vol. 21, no.2 (Spring 2005): 28-47.

²⁴ Richard Neutra quoted in Henry Robert Harrison, "Richard J. Neutra A Center for Architectural Stimulation," *Pencil Points* (July 1937), 412. In this article, Neutra also professed his interest in *Sweet's Catalogue*, a builder's trade catalogue.

²⁵ *Ibid.*

recording.”²⁶ As vision came to be diffused based on the spectacle of mass culture, and associated with other senses, new means of controlling the observer’s attention and perception were conceived.²⁷ In Neutra’s work, this can be characterized by the process of demonstration. Demonstration, as I will argue, is a framework Neutra uses to order the consumer’s/user’s perceptual experience of architecture.

Following this trajectory, I situate each model house within a broader field of visual culture in order to examine both the didactic nature of the design and the ways Neutra was designing for a specific audience. Housing exhibitions, as increasingly popular methods for communicating to a broad public, offered participatory experiences of architectural forms and space.²⁸ In her essay “Dissenting Spaces,” artist Judith Barry argues that the exhibition as a site “becomes the set for a play with objects describing various possible subject positions and making the viewer spatially as well as visually aware.”²⁹ Within these sites, Neutra’s models for demonstration offered direct communication with an intended consumer/user. Architectural historian Beatriz Colomina argues that “architects of this century have always actively engaged in an interdisciplinary discourse that uses the media to blur the line between high and low culture, art and commerce, and that the house is their polemical vehicle. To think about

²⁶ Jonathan Crary, *Suspensions of Perception: Attention, Spectacle, and Modern Culture* (Cambridge: MIT Press, 2000), 2.

²⁷ *Ibid.*, 2-3.

²⁸ For a discussion of exhibitions and a participatory gaze, see Anne Friedberg, *Window Shopping: Cinema and the Postmodern* (Berkeley: University of California Press, 1993). In particular, “Chapter 2: The Passage from Arcade to Cinema.”

²⁹ Judith Barry, “Dissenting Spaces,” in *Thinking about Exhibitions*, ed. Reesa Greenberg, Bruce. W. Ferguson and Sandy Narine (New York: Routledge, 1996), 311.

the house will be to rethink the house/media interface.”³⁰ This thesis examines the model as such a representational form.

Each chapter offers a case study of two model houses exhibited as demonstrations. The first chapter examines Neutra’s Zehlendorf Housing project created under architect Erich Mendelsohn for the developer Adolf Sommerfeld in 1923. The Zehlendorf Housing project is the first instance in which Neutra interacted directly with a broad consumer culture. I then contrast this project to the model house for the Vienna Werkbund in 1932, taking into account the techniques Neutra used to assist the observer in understanding his design. Chapter 2 discusses the model house for the CPIE and the Plywood Demonstration House, each built between 1935 and 1936 for display in Southern California. Lastly, Chapter 3 examines Neutra’s Alpha and Omega Houses for the popular Case Study House Program inaugurated by *Arts and Architecture* magazine. While unbuilt, I examine these postwar houses under editor John Entenza’s original program that they be constructed. It is my intention that these chapters, as case studies themselves, will offer a historically contemporaneous understanding of how Neutra demonstrated modernism to broad publics and how this helped shape his design approach.

³⁰ Beatriz Colomina, “The Media House,” *Assemblage*, no. 27. (Aug. 1995): 66.

Chapter I: Zehlendorf Housing Project (1923) and the Model House for the Vienna

Werkbund (1932)

In October 1921, Neutra accepted a position in architect Erich Mendelsohn's Berlin office. As the cultural capital of the newly established Weimar Republic, Berlin served as a breeding ground for the development of diverse art movements and architectural innovations.³¹ The development of modernist German architecture, called the *Neues Bauen* (new building) or the *Neues Sachlichkeit* (New Objectivity), closely depended on the emergence of public audiences for architecture.³² A widespread housing shortage, coupled with advances in building materials and construction techniques, encouraged architects and city planners to reevaluate forms of domestic architecture. Between the 1920s and 1930s, housing exhibitions became a popular medium across Europe for demonstrating these new architectural ideas to the public.

Created in the midst of this culture of display, Neutra's Zehlendorf project from 1923 and the model house for the Vienna Werkbund from 1932 are closer in program than both their dates and geographical locations initially suggest. The ten units Neutra designed for developer Adolf Sommerfeld were prototypical designs for future units on

³¹ John Zukowsky, "Berlin, Capital of the Modern Movement," in *The Many Faces of Modern Architecture: Building In Germany Between the World Wars*, ed. John Zukowsky (Munich: Prestel, 1994).

³² Kathleen James-Chakraborty, *German Architecture for a Mass Audience* (New York: Routledge, 2000), 3. For a discussion of Weimar mass culture and architecture, see James-Chakraborty, *Erich Mendelsohn and the Architecture of German Modernism* (Cambridge, United Kingdom: Cambridge University Press, 1997) and Frederic J. Schwarz, "Utopia for Sale: The Bauhaus and Weimar Germany's Consumer Culture," in *Bauhaus Culture: From Weimar to the Cold War*, ed. Kathleen James-Chakraborty (Minneapolis: University of Minnesota Press, 2006).

Sommerfeld's land parcel in the forested, Berlin suburb of Zehlendorf.³³ Other than Sommerfeld's program and Mendelsohn's supervision, the project was almost completely designed by Neutra.³⁴ Neutra's Vienna model house was built almost ten years later than the Zehlendorf project in 1932. It was one of seventy units in a *Siedlung* (housing estate) cosponsored by the Vienna Werkbund, the city of Vienna and the nonprofit building cooperative, Gesiba. Both of Neutra's projects were displayed to the public before they were leased or sold.

While these houses are well-documented, the questions they raise, specifically what was to be gained from their public display and unusual floor plans, has not been previously addressed. Whereas new architectural forms were becoming part of the changing rural and urban landscape in both Germany and Austria, they were not easily adopted by mass culture. Architectural historian Richard Pommer, for example, has examined the "War of the Roofs" that emerged in 1920s Berlin over whether housing projects should be designed with flat roofs or traditional pitched roofs.³⁵ Architectural historian Volker M. Velter, additionally, explains that German debates proliferated in the

³³ Only four units were actually built.

³⁴ In 1923, Sommerfeld hired Mendelsohn to design a housing settlement on Mount Carmel in Haifa. As such, Mendelsohn remained abroad for the months surrounding the design of the Zehlendorf project. The project in Haifa was never realized. See Celina Kress, *Adolf Sommerfeld, Andrew Sommerfeld: Bauen für Berlin, 1910-1970* (Berlin: Lukas Verlag, 2011), 123.

³⁵ Richard Pommer, "The Flat Roof: A Modernist Controversy in Germany," *Art Journal*, Vol. 43, No. 2, (Summer, 1983), 158-169.

1920s concerning whether bourgeois architecture should be aesthetically and stylistically differentiated from that of the working class.³⁶

Concurrent with aesthetic debates over an emerging modernist architecture was a growing attempt by European architects and planners to pursue the rationalization of the domestic environment. Interior plans were carefully examined and thought out in terms of providing easy circulation and a maximum use of space for the individual and family. These debates reached their pinnacle at the 1929 Congrès Internationaux d'Architecture Moderne (International Congresses of Modern Architecture, or CIAM) meeting in Frankfurt, the topic of which was “Die Wohnung für das Existenzminimum” (The minimum subsistence dwelling).³⁷ Efficiency in both interior arrangement and methods of building began to materialize as the solution to the housing shortage and improvement of daily life.

Neutra's Zehlendorf housing project and the Vienna model house participate in this pursuit of the minimum dwelling as well as the emergence of the new architecture that would later be termed the “International Style” by Henry-Russell Hitchcock and Philip Johnson. This chapter will examine how Neutra demonstrated new conceptualizations of architectural space to a mass audience. Navigating between contexts of public display, the designs for Zehlendorf and Vienna invited the viewer to

³⁶ Volker Welter, *Ernst L. Freud, Architect: The Case of the Modern Bourgeois Home* (New York: Berghahn Books, 2012), 11. For further information on this debate, see his discussion of the German text by Grete Dexel's and Walter Dexel's, *Das Wohnhaus von heute* (Leipzig: Hesse and Becker, 1928).

³⁷ For a history of CIAM, see Eric Mumford, *The CIAM Discourse on Urbanism, 1928-1960* (Cambridge, MA: MIT Press, 2000).

participate both through visual observance and physical experience. As some of the earliest houses completed by Neutra for a public context, they provide an important foundation for tracing the theme of demonstration in Neutra's oeuvre.

The Zehlendorf Housing Project (1923)

In 1918, Neutra received his degree from the Vienna Technische Hochschule (Imperial Institute of Technology).³⁸ While in Vienna, he also studied informally under architect Adolf Loos.³⁹ After receiving his degree, he held positions briefly in architectural and landscaping offices in Switzerland and Berlin as well as a post as the city architect of Luckenwalde in Germany before joining Mendelsohn's office in Berlin in 1921.⁴⁰ Mendelsohn was a prominent figure in the European avant-garde, and Neutra's tenure in his office undoubtedly exposed him to the changing polemical developments then taking place in Germany. In her writings on Mendelsohn, architectural historian Katherine James-Chakraborty argues that the German architectural community was divided. While architects agreed that their work should represent the conditions of modernity, they differed on "how" it should be represented.⁴¹ Mendelsohn promoted a bold Expressionist style that suggested through its sculptural forms the dynamism of modern life in an increasingly urbanized Weimar-era Germany. By

³⁸ His studies were interrupted by his mandatory service in World War I.

³⁹ Hines, 22.

⁴⁰ Ibid., 31.

⁴¹ James-Chakraborty, *Erich Mendelsohn and the Architecture of German Modernism*, 52 (emphasis is James's).

contrast, other architects began to embrace the impact of mass production and favored the use of new industrialized materials such as concrete, steel and glass to clearly express the modular structure of a building. Neutra entered the Berlin architectural sphere precisely when debates over rationalization and standardization were coming into public focus.

His presence in Germany also overlapped with several important events of the early Bauhaus in Weimar. During the summer of 1923, the Bauhaus, under the direction of then director, architect Walter Gropius, put on its first major exhibition. The 1923 Bauhaus exhibition showcased the school's achievements since its founding. In his manifesto for the Bauhaus from 1919, Gropius argued that the school's curriculum was to "desire, conceive, and create the new structure of the future, which will embrace architecture and sculpture and painting in one unity."⁴² While the Bauhaus maintained no formal architectural program, architecture took an important role at the 1923 exhibition. A focused exhibit, called the "International Architecture Exhibition," organized by Gropius, showcased models and photographs of buildings by international architects. The exhibition also featured the public opening of the Haus am Horn (House on the Horn), constructed collaboratively by the Bauhaus students. In a postcard by Gerhard Marcks, the house is offered up as an emblem for the exhibition (Fig. 2). The experimental, low-cost design was a prototype for the planned (but eventually unrealized) Bauhaus housing settlement in the district of Weimar, known as am Horn (the Horn). Sommerfeld, the same client who commissioned the Zehlendorf project, financially

⁴² Walter Gropius, "Programme of the Staatliches Bauhaus in Weimar," in *Programs and Manifestos on 20th-Century Architecture*, ed. Ulrich Conrads, (Cambridge, MA: MIT Press, 1970), 49.



Figure 2. Gerhard Marcks, Postcard for the 1923 Bauhaus Exhibition, 1923.

backed the construction of the House Am Horn. The Bauhaus's Haus am Horn offers a useful paradigm to unpack the program of demonstration behind Neutra's Zehlendorf design.

To begin, both projects share a similar patron. Sommerfeld was a timber merchant and builder who played a significant role in reshaping the urban landscape of Berlin in the twentieth century.⁴³ He began his career as a bricklayer and eventually became General Director of one of Berlin's largest construction companies, the Allgemeine Häuserbau AG (AHAG), which was responsible for constructing many of the large housing developments in Greater Berlin at the time. Sommerfeld's business, which was centered in the Berlin suburb of Dahlem near Zehlendorf, also extended to projects overseas.

He is best known for commissioning Gropius to design a timber house in Dahlem (Fig. 3). Completed between 1920-21, the house was a collaborative project between Gropius, architects Adolf Meyer and Carl Fieger, and the students of the Bauhaus. In keeping with the program of the Bauhaus, the Sommerfeld House was meant to be a total work of art, unifying the themes of the interior and exterior.⁴⁴ Colored glass windows, wood wall paneling and furniture were all handcrafted by the Bauhaus's faculty and students. By contrast to the emphasis on craft represented by the Sommerfeld House, the

⁴³ For further information on Sommerfeld's influence, see Kress.

⁴⁴ Magdalena Droste, *Bauhaus, 1919-1933* (Köln: Taschen, 2002), 44.

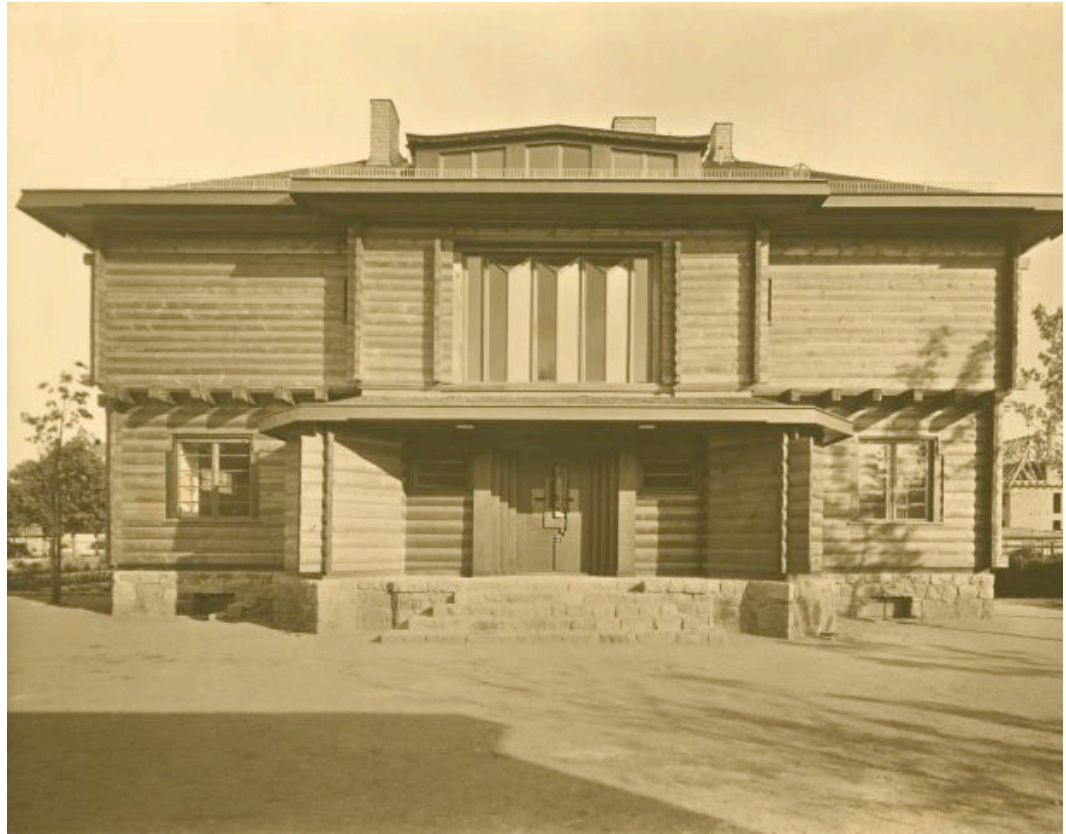


Figure 3. Walter Gropius and Adolf Meyer, Sommerfeld House, Dahlem-Berlin, 1920-21.

Haus am Horn, which was built just a year later, engaged with technology, mass production and the pursuit of interior spatial efficiency.

The Haus am Horn was designed by painter Georg Muche in collaboration with Gropius's private architectural office and the supervision of architect Adolf Meyer (Fig. 4). Muche's cubic design represented the strong influence Gropius had on the school's design approaches. Architectural historian Wallis Miller argues that the design of the Haus am Horn derives from the *Wabenbau* construction system, developed by Gropius and architect Fred Forbat for Bauhaus housing projects between 1920-21.⁴⁵ The *Wabennau* (honeycomb) system emphasized the clear articulation of a building's modular makeup. Gropius's and Forbat's later project, *Baukasten im Großen* (Large-Scale Building Blocks) from 1922-23, illustrated how at the design stage, geometric forms could be re-arranged to produce a variety of living options (Fig. 5). Miller argues further that this concept effectively promoted a move away from traditional readings of building types as a complete whole toward an understanding of the building in terms of its volumetric components.⁴⁶

⁴⁵ Wallis Miller, "Architecture, Building, and the Bauhaus," in *Bauhaus Culture: From Weimar to the Cold War*, ed. Kathleen James-Chakraborty, 74.

⁴⁶ *Ibid.*, 70.

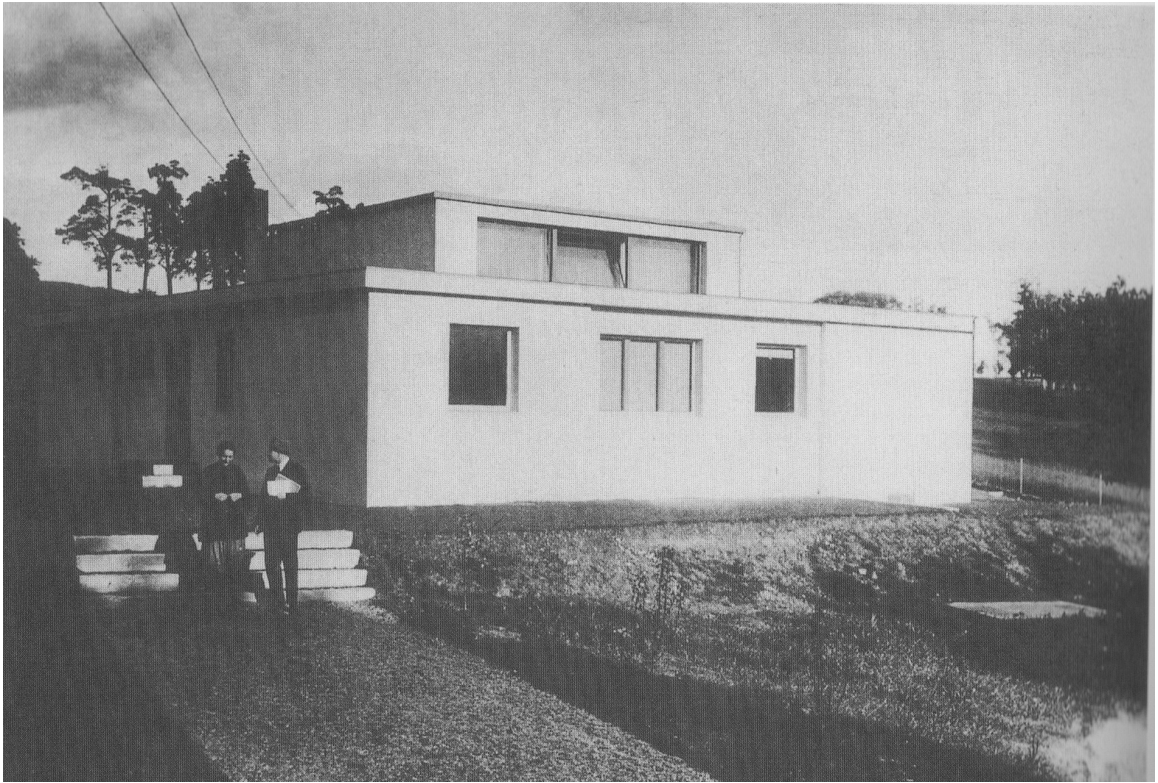


Figure 4. Georg Muche and Adolf Meyer, Haus Am Horn, Weimar, 1923. Photograph with Laszlo Moholy-Nagy and Alma Buscher in foreground.

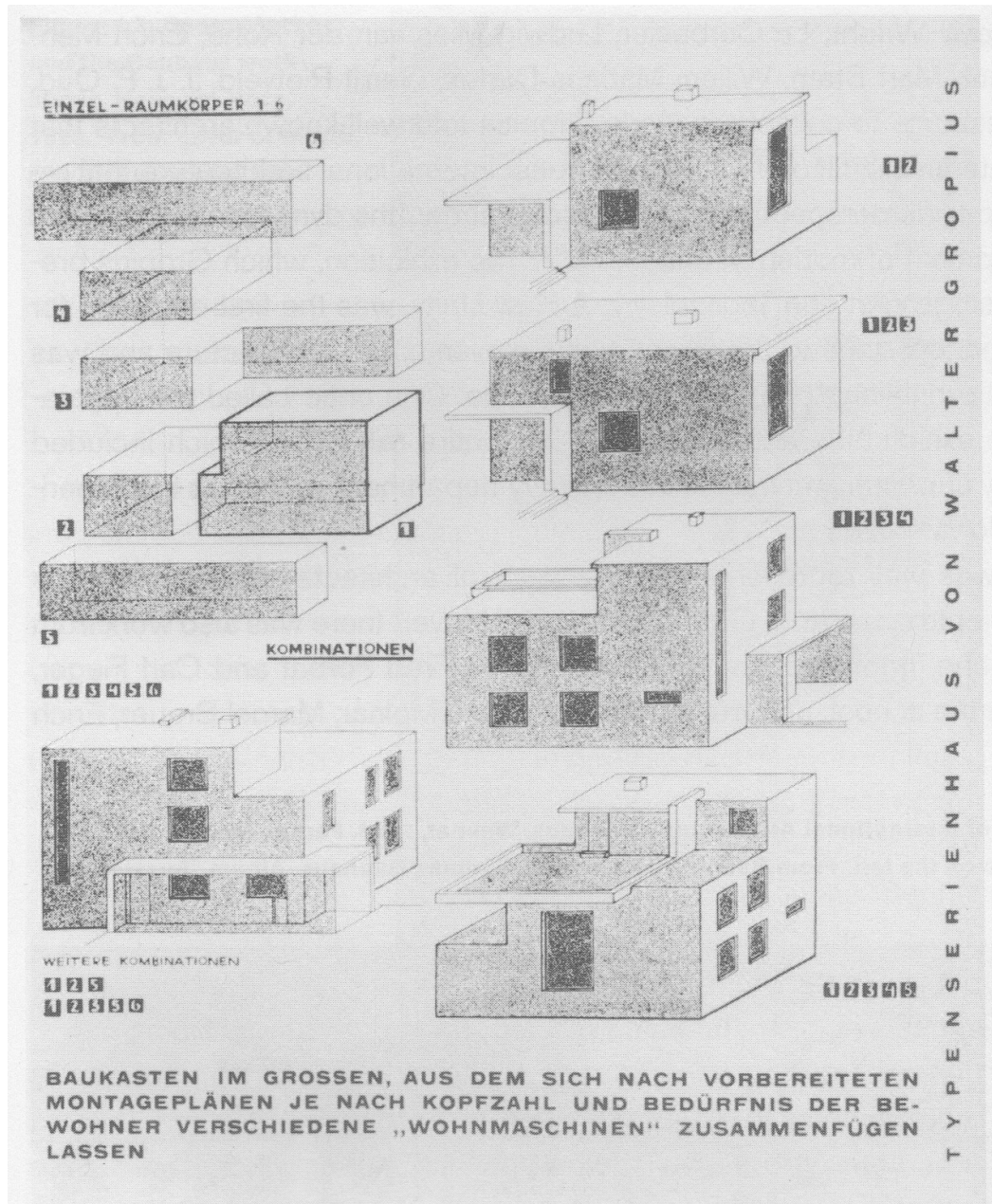


Figure 5. Walter Gropius and Fred Forbat, Large Scale Building Blocks, 1921-23.

The internal arrangement of the Haus am Horn reflects Gropius's principle of conveying the cellular division of a building. A kitchen, dining room, nursery, woman's bedroom, man's bedroom, bathroom and bathrooms were located off a centrally-placed living room that was crowned by a high-ceiling of clerestory windows. The unconventional floor plan was intended to maximize the minimal square footage of the house (Fig. 6). Muehe stated he pursued "economy in both construction and household management" in his design.⁴⁷ Located around the living room, each rectangular room provided a single, functional use. The modularity of the interior spaces is represented in an isometric view of the house drawn by Bauhaus textile designer Benita Koch-Otte (Fig. 7). The design also incorporated the use of industrially prefabricated materials, including steel, concrete and newly offered products for insulation. Together, the pursuit of efficiency and prefabricated materials in the Haus am Horn reveal the Bauhaus's shift under the direction of Gropius from a handcrafted to an industrialized, standardized design approach. Whereas Sommerfeld's own timber house was a custom, handcrafted design, his funding of the Haus am Horn reflects his affinity with a growing move toward the implementation of standardization in the housing industry.

Recognizing a financial opportunity in Germany's housing shortage, Sommerfeld planned to construct a large-scale development of uniform, single-family detached units in Zehlendorf. Four houses were built from Neutra's original design and were intended as speculative models to encourage potential clients to invest in the construction of the

⁴⁷ Georg Muehe, "The Single-Family Dwelling of the Staatliche Bauhaus," in Hans M. Wingler, *The Bauhaus: Weimar, Dessau, Berlin, Chicago*, paperback edition (Cambridge: MIT Press, 1969), 66.

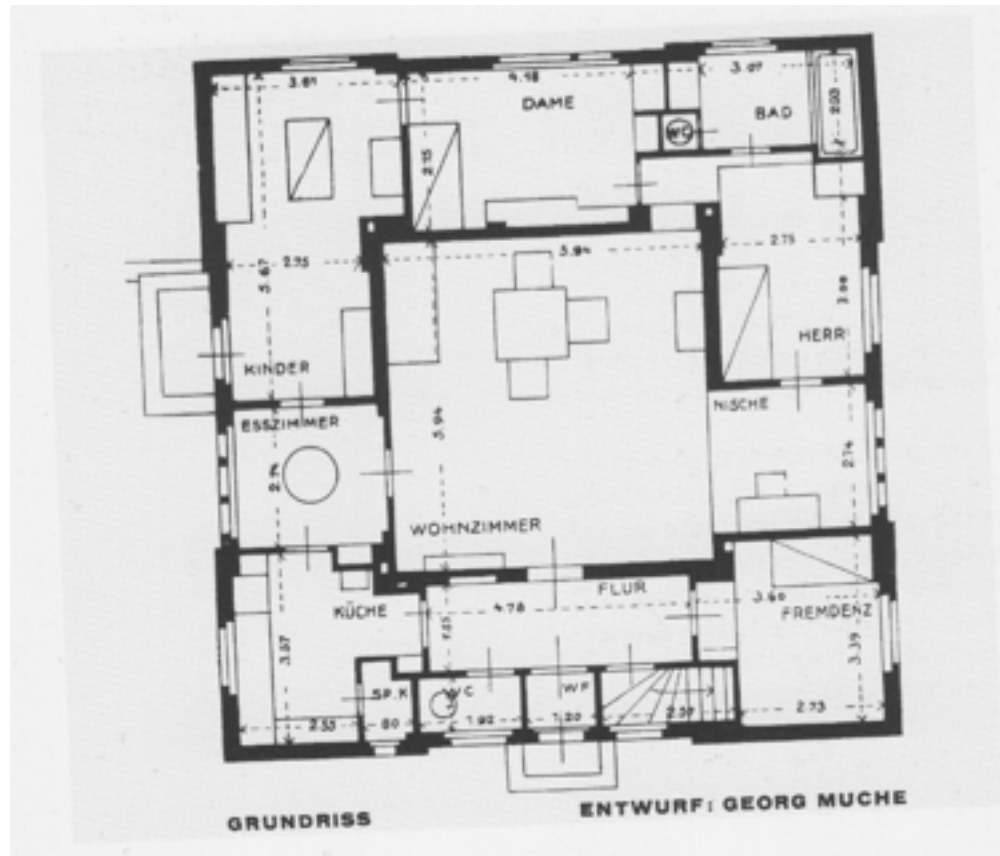


Figure. 6. Georg Mücke, Floorplan, Haus am Horn, Weimar, 1923.

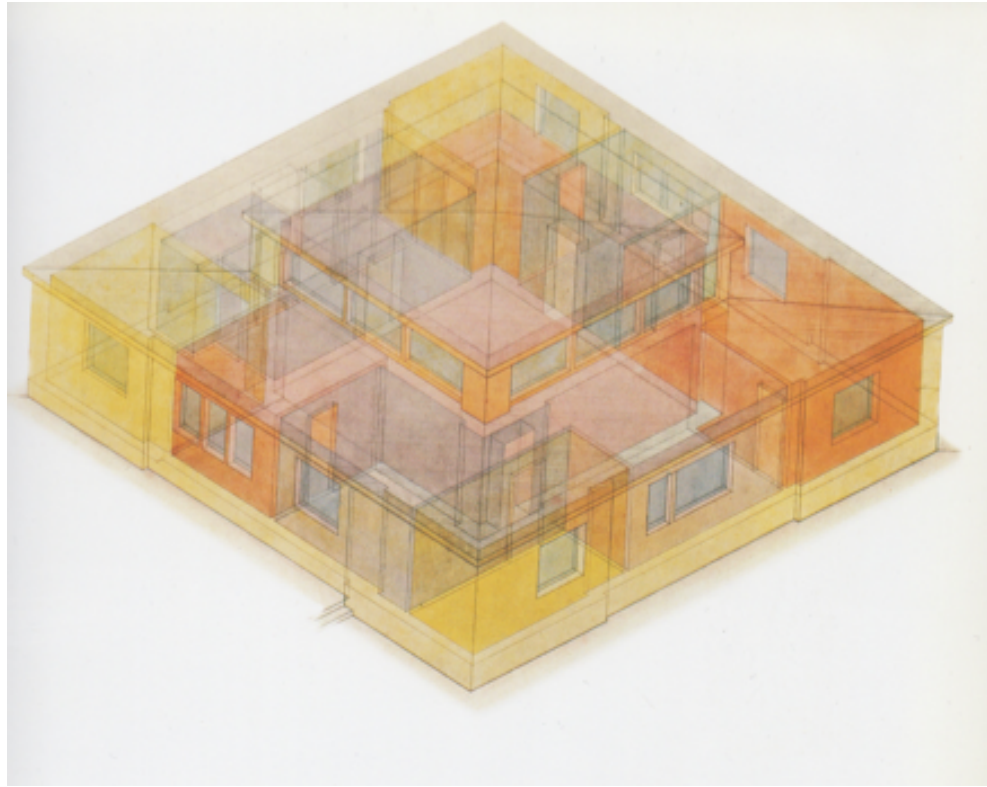


Figure. 7. Benita Koch-Otte, Haus Am Horn, Weimar, isometric drawing, 1923.

development. With the exhibition of the Haus am Horn during the same year, the Zehlendorf project provided an opportunity for these ideas to be marketed to the public.

The four constructed units were located along Onkel-Tom-Straße and comprised the southern most buildings in the original site plan (Fig. 8). Two houses were finished in 1923, while the construction of the final two houses, each featuring a rotating platform adjacent to the living room, was delayed until the early spring of 1924.⁴⁸ The public display of the houses occurred after these units were constructed.⁴⁹ After entering through a covered trellis, the observer, or prospective client, to the site would have encountered the similar modernist facades of each detached unit. By contrast with other houses built in Zehlendorf during the same period, such as a house by architect Otto Rudolph Salvisberg that featured facades of exposed wood and a pitched roof (Fig. 9), the Zehlendorf project presented a radically different style for the bourgeois single-family house.

Neutra's designs were cubic, flat-roofed buildings with red-brick masonry and light-colored plaster facades (Fig. 10 and 11). The units presented the formal characteristics of a new modernist architecture promoted by Mendelsohn. In a manner similar to Mendelsohn's Double Villa at Karolingerplatz built in 1921 (Fig. 12), the materials for the Zehlendorf project accented the volumetric characteristics of the design. The horizontal banding of the brick across corners of the façades suggested a subdued

⁴⁸ Kress, 120-8. Sommerfeld had plans to build a group of houses in Zehlendorf since 1922. He contracted Mendelsohn's office to complete the designs in spring of 1923.

⁴⁹ Kress, 128 and Richard Neutra, *Life and Shape* (Appleton-Century-Crofts, 1962), 158. Kress cites a report of a press conference held by Sommerfeld.

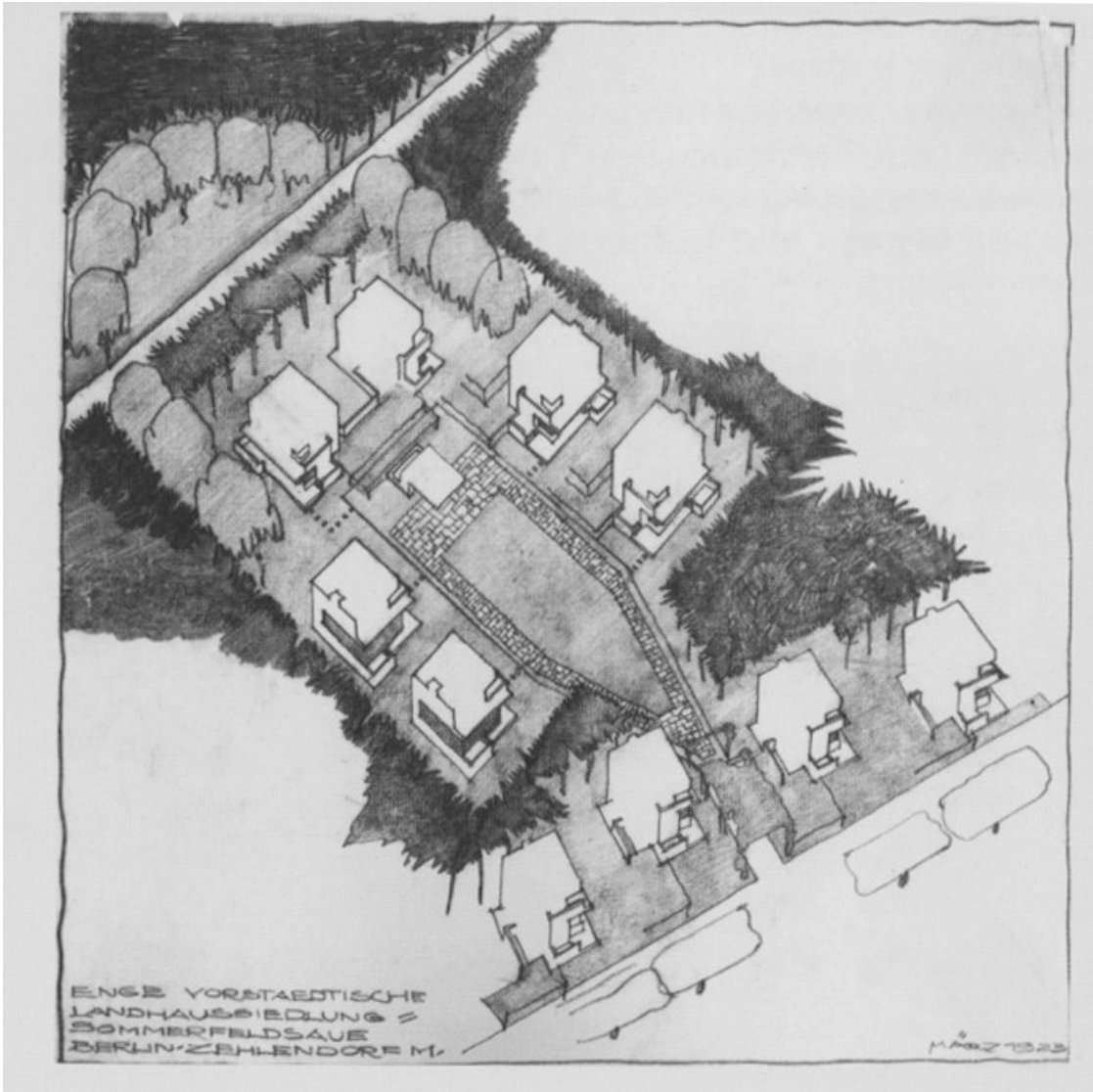


Figure 8. Richard Neutra for Erich Mendelsohn, Zehlendorf Housing, Berlin, 1923.



Figure 9. Otto Rudolf Salvisberg, Stöckle House, Zehlendorf, 1922. Published in Celina Kress, *Adolf Sommerfeld, Andrew Sommerfeld: Bauen für Berlin, 1910-1970* (Berlin: Lukas Verlag, 2011), 119.



Figure 10. Richard Neutra for Erich Mendelsohn, Zehlendorf Housing, Berlin, 1923.



Figure 11. Richard Neutra for Erich Mendelsohn, Zehlendorf Housing, Berlin, 1923, contemporary photograph.

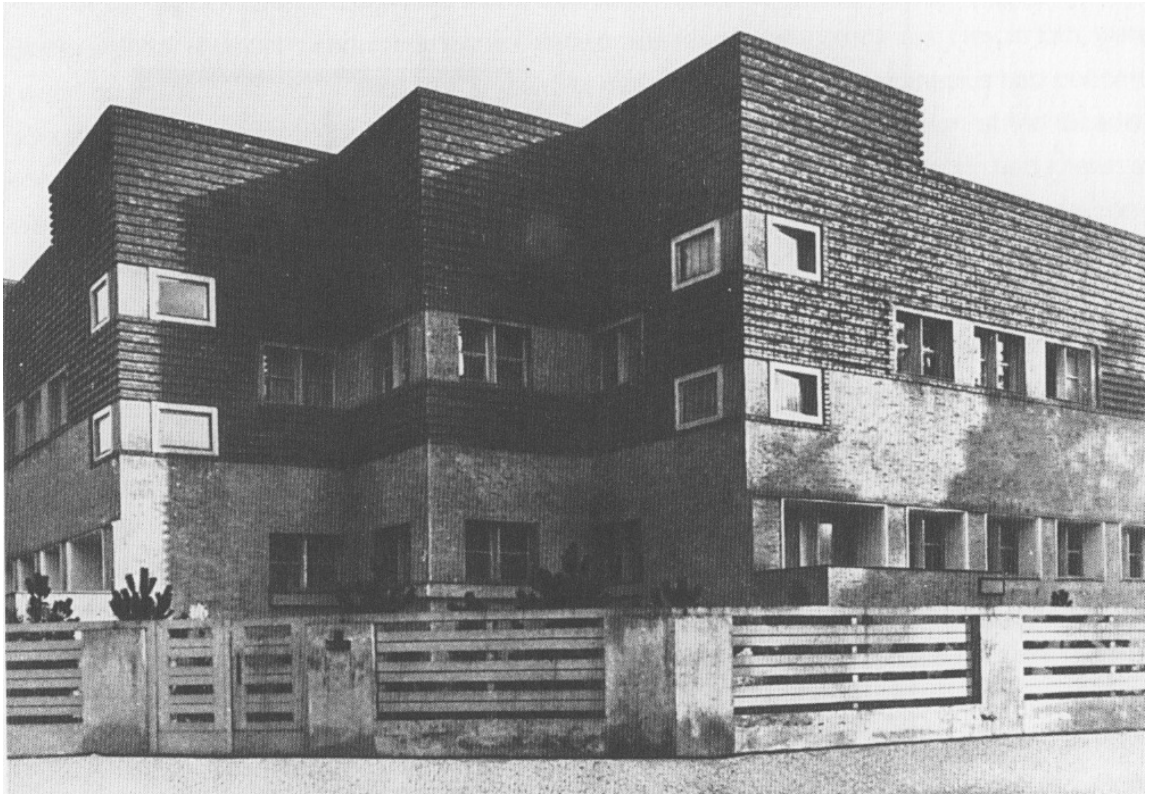


Figure 12. Erich Mendelsohn, Double Villa at Karolingerplatz, Berlin, 1921.

version of the dynamism characteristic of Mendelsohn's Expressionist works. The contrast in materials and coloring of the cantilevered overhangs to those of the support walls added to this spatial illusion of movement. A drawing by Neutra further suggests a dynamic quality associated with Mendelsohn's sketches (Fig. 13). Neutra's use of orange and blue pencils in this sketch accentuates the horizontal extension and recession of the building's modules. In his essay *Dynamics and Function* from 1923, Mendelsohn wrote, "Medieval man, amidst the horizontal tranquility of his contemplative working day, needed the verticals of the cathedrals in order to find his God high above. Modern man, amidst the excited flurry of his fast-moving life, can find equilibrium only in the tension-free horizontal."⁵⁰ The terrace on the second floor of the units further emphasized the horizontality of the building.

As is evidenced by the site plan, each of the houses had their own designated garden space. While Neutra was trained in landscape architecture, having studied under Swiss landscape architect Gustav Ammann, he was not hired by Sommerfeld to design the landscaping for the project.⁵¹ Instead, Sommerfeld hired Margot Wittkower to design the project's gardens (Fig. 14). Wittkower was originally trained in interior design at

⁵⁰ Erich Mendelsohn, "Dynamics and Function," in *Programs and Manifestos on 20th-Century Architecture*, ed. Ulrich Conrads, (Cambridge, MA: MIT Press, 1970), 72.

⁵¹ Hines, *Richard Neutra and the Search for Modern Architecture*, 26. Neutra worked under Ammann at Otto Froebel's nursery and landscaping practice when he was in Switzerland in 1919. Amman instructed him in botanical studies as well as landscape architecture and site planning.



Figure 13. Richard Neutra for Erich Mendelsohn, Zehlendorf Housing, Berlin, 1923.
(From Thomas Hines, *Architecture of the Sun: Los Angeles Modernism, 1900-1970* (New York: Rizzoli, 2010), 279.)

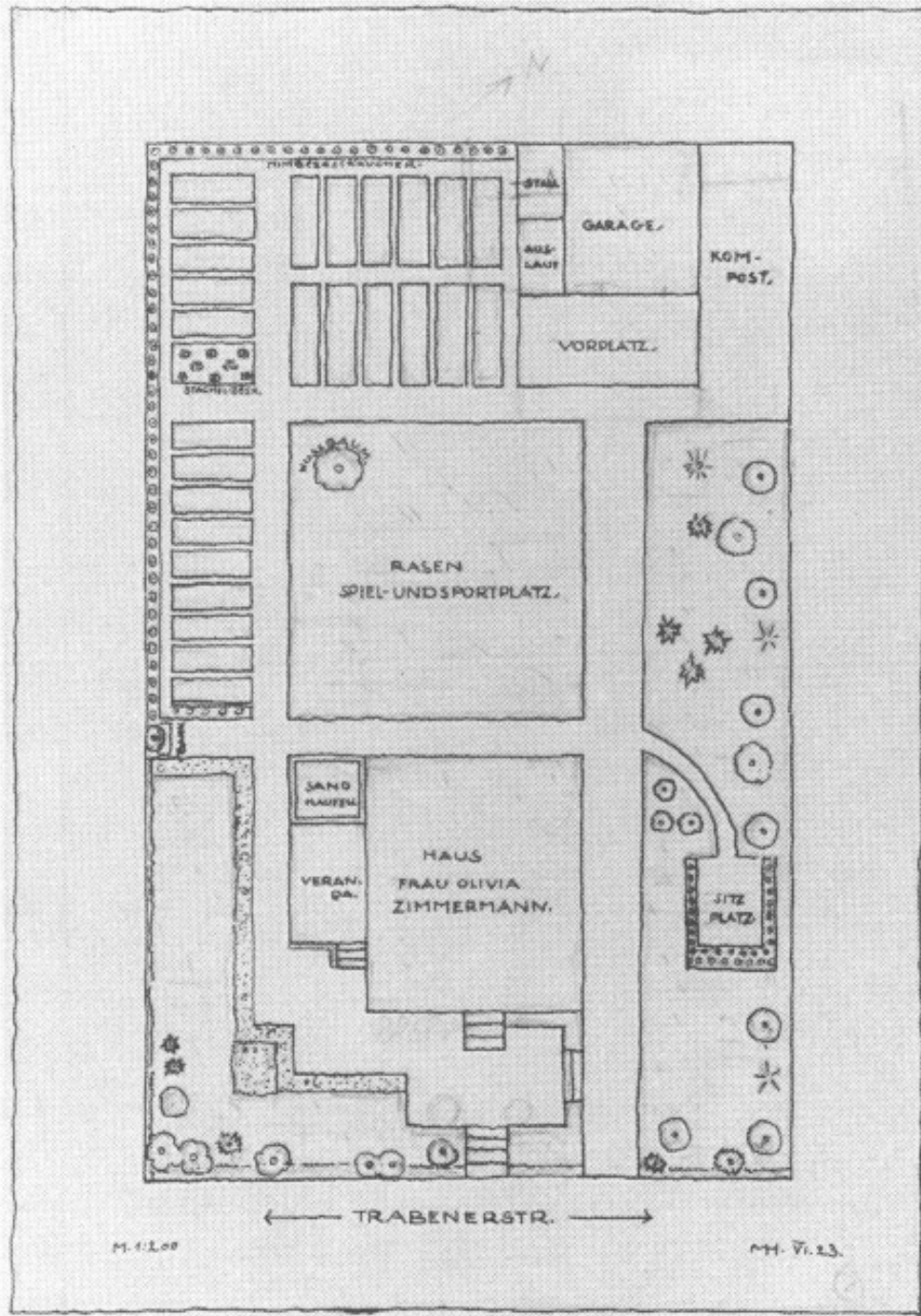


Figure 14. Margot Wittkower, Garden Design for a House in Zehlendorf, Berlin, 1923.

the Tischlerei Fachschule (cabinet-making school) in Berlin.⁵² In 1922, difficulties in the job market led her to contact Sommerfeld, who was a family friend. Sommerfeld hired her to run his newly established Gartenbau Betrieb GmbH (Horticultural Corporation), which was a division of his firm that would allow him to charge future land-buyers additional design fees for landscaping. Wittkower designed the gardens for the Zehlendorf project and supervised the logistics of their maintenance.

The organization of the landscape into neatly arranged gardens assisted in acclimating the viewer to the aesthetic forms of the modernist architecture. The arrangement of the houses provided the viewer with a sense of visual continuity within the site. Gardens were located off to the side of the houses or at the rear of the main structures. In Wittkower's plan from 1923, she indicates where shrubs and walnut trees should be situated (Fig. 14). Plants were placed at a distance from the houses. Contemporaneous photographs reveal that many of the trees native to the heavily forested region were retained, while the areas surrounding the houses were re-landscaped with manicured lawns (Fig. 10). The organization of the gardens into neat, geometrical shapes echoes the bold, cubic shapes of the houses. The gardens also provided a series of *platz* (outdoor rooms), which lent a functional, desirable feature to the suburban site. Together,

⁵² Victoria Newhouse, "Margot Wittkower: Design Education and Practice, Berlin—London, 1919-1939," *Journal of Design History*, vol. 3, no. 2/3 (1990): 88-9. For a discussion of the history of design education, the role of women in the field and Wittkower's pioneering role in this area, see Newhouse.

Neutra's site plan and Wittkower's minimal landscaping produced an ordered space for viewing and understanding the buildings on display.

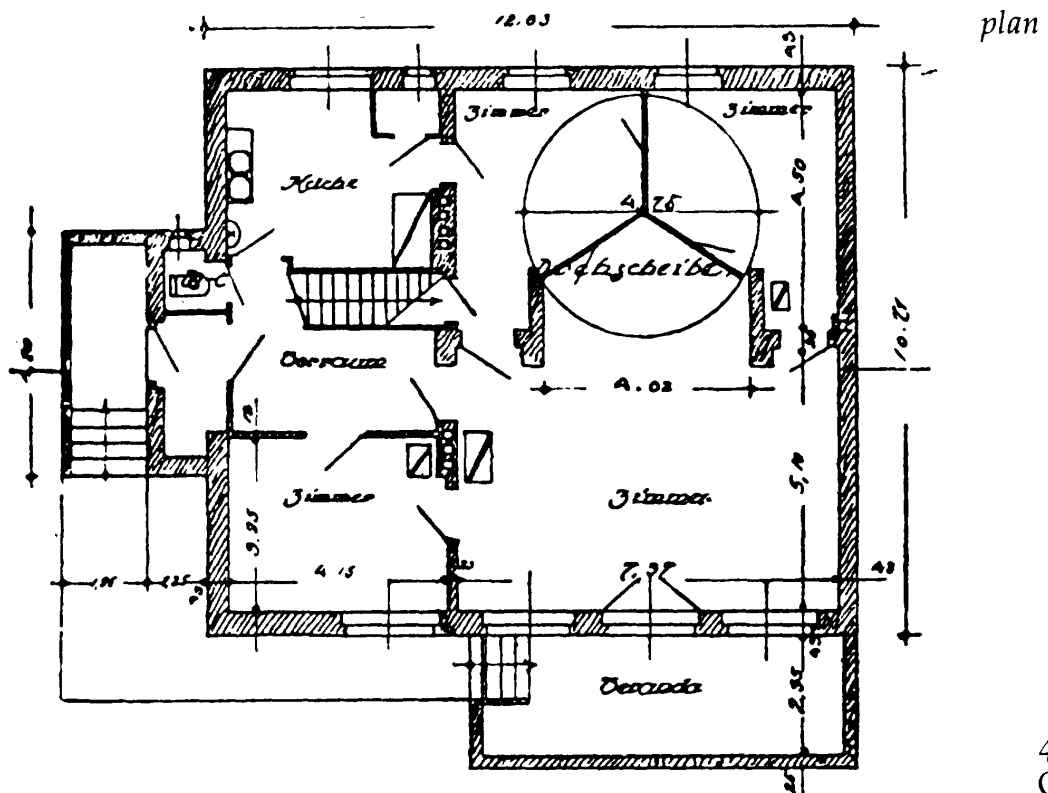
While the exterior facades and gardens attempted to convey a marketable version of the new style of architecture, Neutra's interior designs presented a reinvention of interior space. The exterior design does little to convey the most innovative aspect of the interior plan—the revolving platform next to the living room.⁵³ As seen in a floor plan, the lower level featured a kitchen, small room, living room and a space for the revolving platform or turntable (Fig. 15). According to Neutra's later description of the project, the mechanism offered prospective residents the opportunity of maneuvering it with a button. He goes on to describe how, once rotated, the platform could reveal “one of three fully furnished sectional bays,” explaining that, “the first was a music room; the second, a dining area with the table all set; and the third, a comfortable cozy corner with a good home library.”⁵⁴

Welter argues that a rethinking of the “bourgeois way of life” itself played out in the architectural manuals of early twentieth century Germany.⁵⁵ Architects and writers questioned the necessity of providing a different, walled-off room for each activity and

⁵³ While only two platforms were actually built, Sommerfeld intended for all four houses to feature the design. As such, my discussion of the interiors will be an analysis of the units with the revolving platform.

⁵⁴ Neutra, *Life and Shape*, 158.

⁵⁵ Welter, 12. Welter compares German texts, including Gustav Adolf Platz, *Wohnräume der Gegenwart* (Berlin: Propyläen, 1933) and Hermann Muthesius, *Wie baue ich mein Haus?*, 3rd ed. (Munich: F. Bruckmann, 1919). His translation of Platz's analysis of the bourgeois home is worth restating considering the platform, “The singular living room replaces for him the abundance of rooms that he either does not use or cannot heat. This living room will be a combination of dining area, office area, or music area. The room will be dissected into suitable compartments through built-in features, furniture, partial walls, and sliding doors. The room will be flexible, elastic, separable, it can be increased or reduced-- it is an instrument of life even in modest circumstances.”



4
Or

Figure 15. Richard Neutra, Floor plan, Zehlendorf, 1923.

past-time favored by the bourgeois class (i.e. conducting business, reading, music recitals and formal dining). One possible solution was the consolidation of these activities into a more spatially economic form. Considering this context, the Zehlendorf platform can be seen as one of the earliest instances in which Neutra began to rethink spatial efficiency in his designs and the needs of a general user.

In addition to its ability to literally re-organize space, the platform functioned as a demonstrative tool to guide the viewer's perception of the unconventional interior arrangement. A contemporary photograph demonstrates the various possibilities of the platform (Fig. 16). To the right, a woman plays a piano in the space reserved for music. In the foreground of this space, a young girl appears to demonstrate its rotating capability. Whereas Neutra's description states that the platform was mechanically operated, the stance of the young girl suggests, instead, that the platform had to be pushed in order to move.⁵⁶ Following her stance, the next portion of the platform is partially revealed, in which several men appear to be reading letters and books. Behind the men, there is another door to the dining room. To the far left of the image, another doorway is visible that presumably leads to the kitchen. Through the device of the platform, one room accommodated the functions traditionally reserved for three separate rooms. For the contemporaneous observer, the demonstration of the rationalized spaces of the platform would have made it both a desirable consumer product and an easily legible demonstration of the new architecture's search for efficiency.

⁵⁶ The delayed construction of the units with a platform could have resulted from the difficulty of getting the device to operate correctly.



Figure 16. Installation variations for the rotating platform, c. 1923.

Whereas traditional furniture was used for the interior decoration of the houses, the interior paint scheme was unconventional, at least for the period of the public exhibition. Vivid colors, such as orange, blue, purple and green were used to delineate each room.⁵⁷ The walls of the living room, for example, were painted blue, while a bedroom was painted purple. Barbara Mac Lamprecht argues that the colors “define space as discreet containers, as filled volumes.”⁵⁸ Historian Celina Kress has noted that the colors themselves are similar to those produced by the Bauhaus at Weimar.⁵⁹ While the Bauhaus could be a possible source for the Zehlendorf design,⁶⁰ the school’s exploration of color deserves further attention in terms of the practice of demonstration.

In the Haus am Horn, each room is painted differently in solid pastels or geometric, color patterns. Benita Koch-Otte’s drawing conveys the alternating color schemes (Fig. 7). At the Bauhaus, color theory was part of the *Vorkurs* (Preliminary Course), a workshop developed and taught by painter Johannes Itten, a prominent figure of the early Bauhaus. Among his many influential concepts, Itten asserted that color is experienced in a multi-sensory manner. He claimed that those who wanted to master color needed to “see, feel, and experience each individual color in its many endless

⁵⁷ In 2008, the restoration of the house at Onkel-Tom-Strasse 91 revealed the original paint scheme. It is described in Kress, 125 and Barbara Mac Lamprecht, “The Colors of Neutra,” *Lamprecht ArchiTEXTural*, www.barbaralamprecht.com. Lamprecht’s web page has images of the interior restoration.

⁵⁸ Lamprecht, “The Colors of Neutra.” Lamprecht further writes, “His use of color here reminds me of Le Corbusier’s Color Keys or, especially, Bruno Taut’s Berlin housing, beginning with his “Paint Box Estates” aka Falkenberg Housing, 1912.”

⁵⁹ Kress, 125.

⁶⁰ *Ibid.*, 128.

combinations with all other colors.”⁶¹ Itten developed this theory in relation to painting, yet it was also meant to be applied in other Bauhaus workshops, following the curriculum that encouraged students to unite “all visual arts.”⁶² Painters Wassily Kandinsky, master of the workshop for wall-painting and Paul Klee also promoted ideas of color in relation to space and architecture. Kandinsky argued that “color offers a large number of possibilities for the treatment of space” and “is able to change a given form so that a new one evolves from the given form.”⁶³

In the Haus am Horn, color was a tool for demonstrating spatial arrangements. The modularity of the interior spaces, as reflected in Mucbe’s Gropius-inspired design, was heightened by the use of wall colorings. As visitors walked through each differently colored room a new functional space and, in turn, sense of space would have been revealed to them. Similar to the Haus am Horn, the use of color in Neutra’s Zehlendorf interiors was concerned with demonstrating the maximization of interior space. Changes in color from room to room demonstrate the user’s movement through the house and the functional meaning of each room. Color and the classifying nature of the platform itself were used by Neutra to acclimate the user’s perception to a new spatial organization of the domestic interior.

⁶¹ Johannes Itten quoted in Farber Birren, “Forward and Evaluation,” in Johannes Itten, *The Elements of Color*, reprint and trans. of the 1961 ed. (Stuttgart: Urania Verlag, 2003), 6.

⁶² Gropius, “Programme of the Staatliches Bauhaus in Weimar,” 49.

⁶³ Wassily Kandinsky, “The Work of the Wall-Painting Workshop of the Staatliches Bauhaus,” in Hans M. Wingler, *The Bauhaus: Weimar, Dessau, Berlin, Chicago*, paperback edition (Cambridge: MIT Press, 1969), 66.

Neutra's placement of the platform in front of the living room further shapes the device into a tool for structuring vision and the body of the user. In the photograph of the interior (Fig. 16), the curtains framing the mechanism create a proscenium and draw attention to the platform's similarity to a stage. When oriented toward the living room, activity taking place on the platform becomes vulnerable to the visitor's gaze. This effect of surveillance inherent in the room's layout can be compared to the effect of Loos's designs for contemporaneous houses. In her discussion of theatricality in Loos's interiors, Beatriz Colomina argues that the raised sitting area above the entrance to the split-level Moller House (1928), is akin to a theater box in which the occupant of the space can overlook the interior and exterior spaces of the home (Fig. 17). Colomina states, "The house is a stage for the theater of the family, a place where people are born and live and die. Whereas a work of art, a painting, presents itself to critical attention as an object, the house is received as an environment, as a stage."⁶⁴ The drama of daily life is put under the observational gaze of the occupant in Loos's house. The living room in Neutra's design provides the role of the theater box, while everyday activities were acted out on the platform, putting domestic life on display.

Neutra's design for the Zehlendorf project met with mixed reviews when it was opened for exhibition to the Berlin public.⁶⁵ The focus of the criticism was the rotating

⁶⁴ Beatriz Colomina, "The Split Wall: Domestic Voyeurism," in *Sexuality and Space*, ed. Beatriz Colomina (New York: Princeton Architectural Press, 1992), 85.

⁶⁵ Kress, 128.

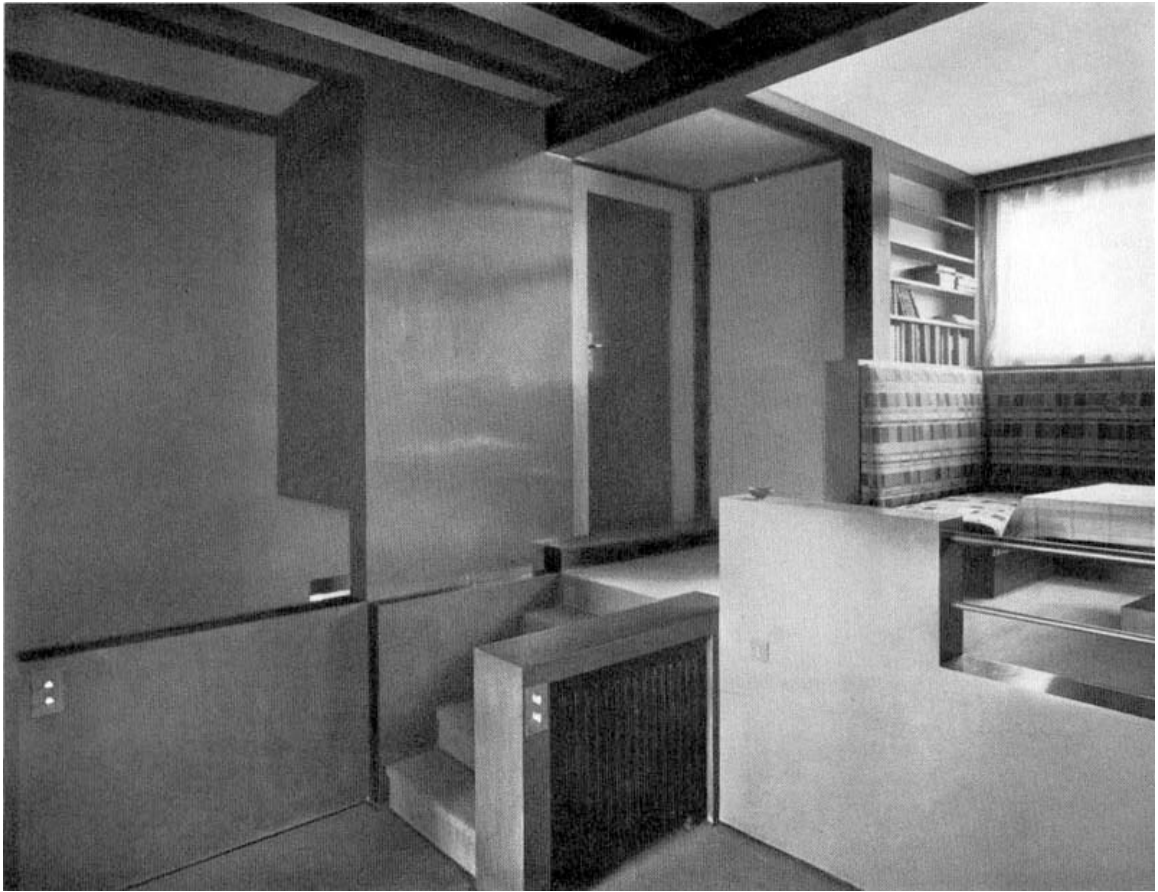


Figure 17. Adolf Loos, Raised sitting area off the living room, Moller House, Vienna, 1928.

platform. According to Neutra, a Berlin newspaper targeted the platform as a potential disaster.⁶⁶

With Berliner humor, the cartoonist for the *Vossische Zeitung* showed the proud owner displaying the architect's sorcery to a guest. Absorbed in bragging conversation, his face turned to the visitor instead of to the revolving stage, he pushes the wrong button and in rolls the bath, with his protesting wife in the nude, trying too late, to jump out of the tub.⁶⁷

While this spatial orientation was not possible, it suggests skepticism toward the design's ability to control views of interior space. Colomina argues that the theater box in Loos's Moller house "is a device which both provides protection and draws attention to itself [...]. The 'voyeur' in the 'theater box' has become the object of another's gaze; she is caught in the act of seeing, entrapped in the very moment of control."⁶⁸ Whereas the occupant of Loos's Moller House is female, the occupant of Neutra's house, in the cartoon, is male. When he is unable to control the architecture of his home and the sightlines produced, he becomes caught in an embarrassing state of voyeurism. He mistakingly reveals an all too private view of his wife to his guests.

⁶⁶ Neutra, *Life and Shape*, 158. I rely on Neutra's description of the cartoon in his autobiography rather than an illustration of the cartoon as it reveals nuances pertaining to my argument.

⁶⁷ *Ibid.*, 158.

⁶⁸ *Ibid.*, 83.

The fact that the platform malfunctioned in Neutra's description of the cartoon reveals a public uneasiness to accept the bold reinvention of bourgeois interior space and, ultimately, tensions over what form architecture should take in response to modernity and economic pressures for domestic efficiency. As a literal machine in the home, the platform failed to merge with everyday domestic life and provide a new way of living. In fact, in 1929, architect Marcel Breuer was hired by Sommerfeld's business associate, Erich Ernst Wilinski, who had acquired one of the houses in 1928, to redesign the floor plan and interior decoration of the lower level.⁶⁹ Breuer's plan for the interior included a more traditional arrangement (Fig. 18). A formal dining room stood where the platform was originally located, while a space was demarcated in the living room for music recitals.

Model House for the Vienna Werkbund (1932)

In October 1923, closely following the completion of the Zehlendorf houses, Neutra immigrated to the United States. Neutra's decision was motivated by his admiration for American architecture.⁷⁰ After a brief stay in New York, Neutra left for Chicago, where he secured a position as a draftsman at the firm of Holabird and Roche. While in Chicago, Neutra also met architects Louis Sullivan and Frank Lloyd Wright. The 1910 publication of Wright's work, commonly referred to as the Wasmuth portfolio

⁶⁹ Kress, 125-6.

⁷⁰ Hines, *Richard Neutra and the Search for Modern Architecture*, 42.

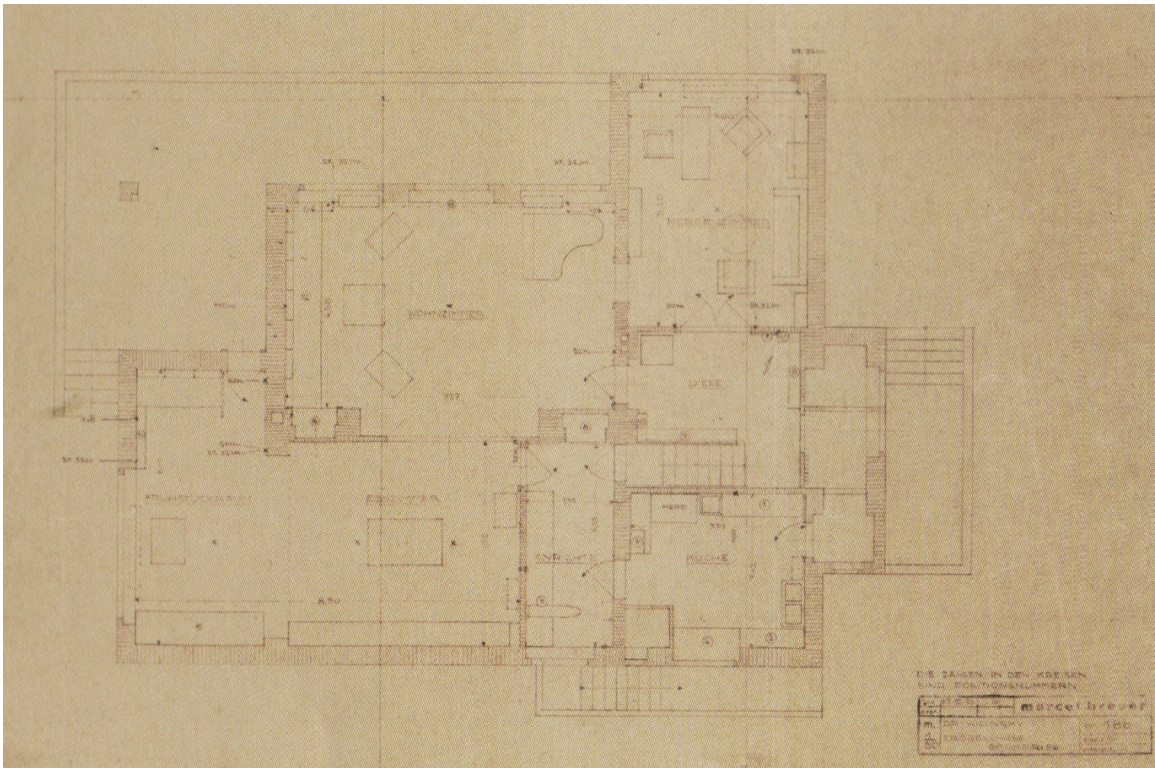


Figure 18. Marcel Breuer, plan for the remodeling of the unit at Onkel-Tom-Strasse, Zehlendorf, 1928.

after the book's publisher, had a profound impact on Neutra and the European architectural community.⁷¹ Shortly after meeting Wright, Neutra accepted a position at his summer home and studio, Taliesin, in Spring Green Wisconsin.

By 1925, Neutra pursued his desire to move to California. The impetus behind this move is largely credited to Neutra's friend and business partner, Viennese-born architect Rudolph Schindler, who had moved to California in 1920 to work for Wright.⁷² Neutra's stay and employment under Schindler at his studio and house on King's Road in West Hollywood has been well-documented by Hines.⁷³ Their working relationship and friendship effectively ended in 1927 when Neutra received the commission from Schindler's former client, Philip Lovell, to design a large, hillside house. The Lovell Health Demonstration House, completed in 1929, has gained iconic status in architectural history as the first house built with a steel frame (Fig. 19).

In 1927, he published his first book, *Wie Baut Amerika?* (How America Builds), which documents his theoretical plans for a modern city as well as advances in American building technologies. Following the publication of this book and the Lovell Health Demonstration House in 1929, Neutra gained increasing prominence in the international architecture community. In 1930, he travelled on a press tour through Japan and then Europe. On this trip, Neutra received a commission from the Vienna Werkbund to design a dwelling for their planned 1932 housing exhibition. The premise of the Vienna

⁷¹ Ibid.

⁷² Hines, "Case Study Trouvé," 85.

⁷³ Hines, *Richard Neutra and the Search for Modern Architecture*.

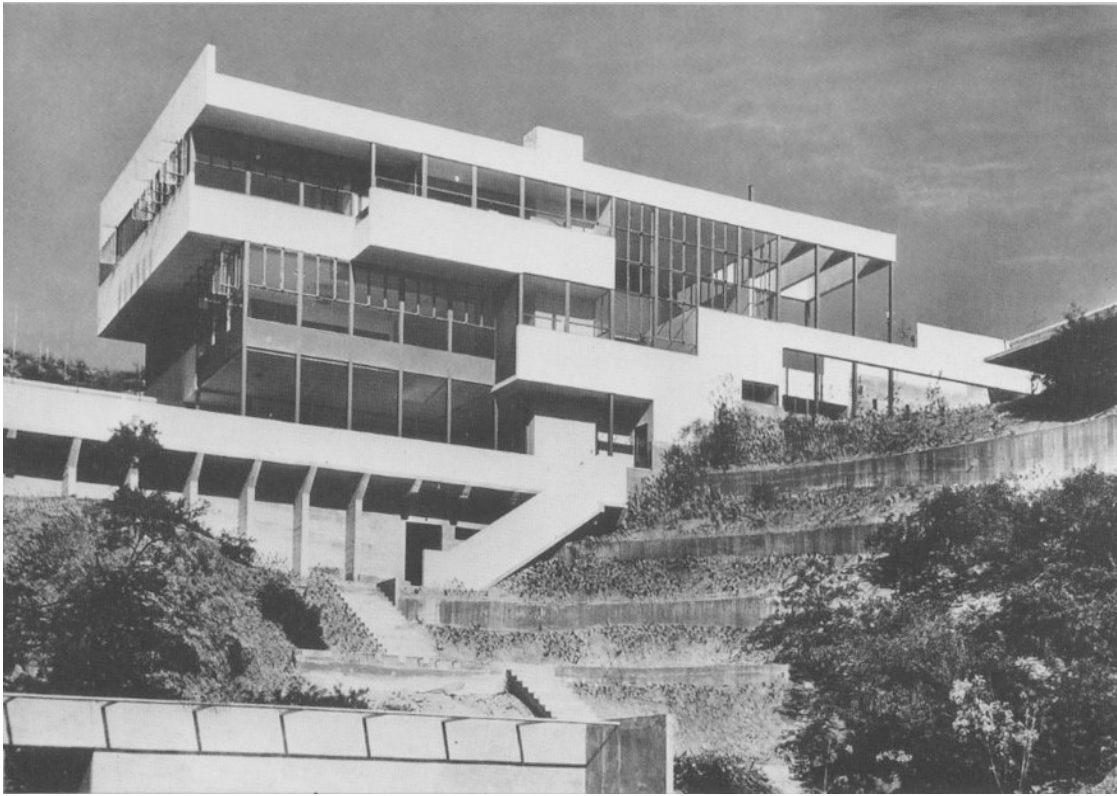


Figure 19. Richard Neutra, Lovell Demonstration Health House, view from gardens, Los Angeles, 1927-1929.

exhibition, organized by architect Josef Frank, was to provide a variety of design approaches based on the principle of the *Existenzminimum*.⁷⁴ The project was located in Lainz, a suburb of Vienna.⁷⁵ Neutra's model house for the exhibition was his first exhibited design for a low-cost, efficient house intended for a larger consumer base—a building type that would occupy a large place in his oeuvre (Fig. 20).

He previously explored mass housing for an industrialized society as a theoretical concept through his involvement with CIAM.⁷⁶ Whereas the first Congress that he attended was the 1930 meeting in Brussels, Neutra submitted an essay a year earlier as the American delegate to the meeting on “Die Wohnung für das Existenzminimum.”⁷⁷ The 1929 meeting, or CIAM 2, dealt with what architectural historian Eric Mumford describes as a pursuit toward a “scientific solution” to the minimal dwelling unit.⁷⁸ The problem proposed was how to provide the working classes of industrialized societies with basic living requirements (such as light and air circulation) with regard to efficient use of square footage and cost. Papers on the Taylorization of building production as well as housework were presented.⁷⁹

⁷⁴ Friedrich Achleitner, “The Österreichischer Werkbund and Its Relations with the Deutscher Werkbund,” in *The Werkbund: History and Ideology, 1907-1903*, ed. by Lucius Burckhardt (New York: Barron's, 1980), 110.

⁷⁵ Eve Blau, *The Architecture of Red Vienna: 1919-1934* (Cambridge, MA: MIT Press, 1999), 132. The development was originally intended for a more urban site.

⁷⁶ Neutra had been an American delegate since the first CIAM meeting in La Sarraz, Switzerland. Mumford, 52.

⁷⁷ Mumford, 49. At the meeting, Neutra presented an abbreviated version of his book *Wie Baut Amerika?* in a lecture titled “High-, Mid- and Low-rise Building in American Construction.”

⁷⁸ Mumford, 30-1.

⁷⁹ *Ibid.*, 31.

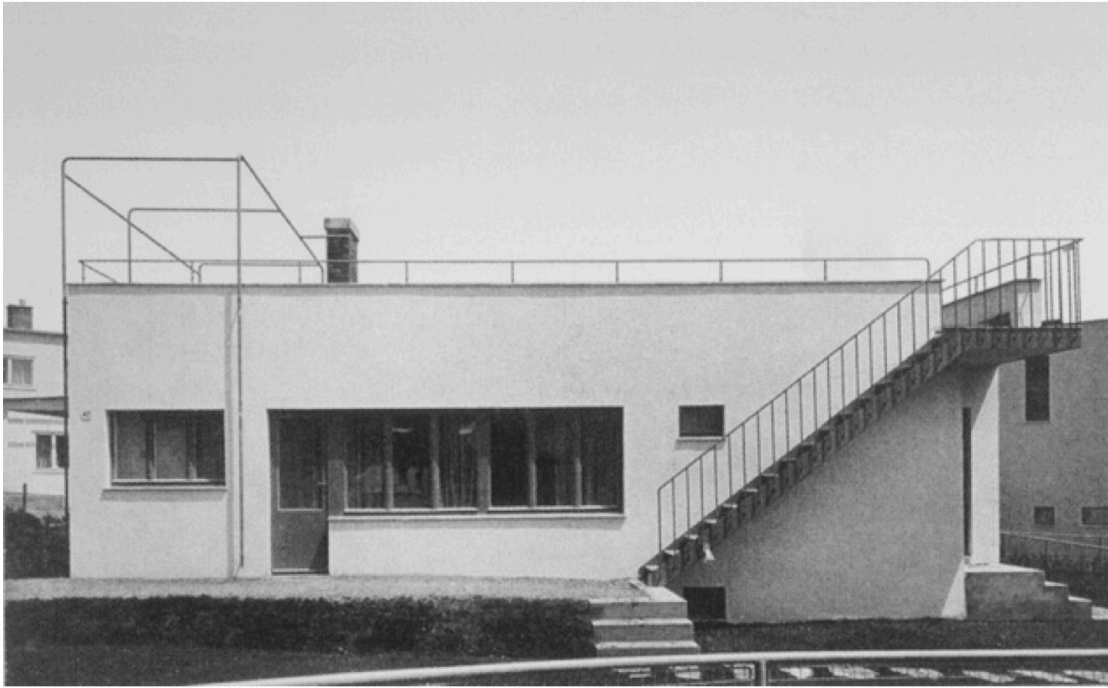


Figure 20. Richard Neutra, Exhibition House, Lainz, Vienna, 1932.

Results of the Congress materialized in a circulating exhibition titled “Homes for Minimum Incomes,” which featured two hundred and seven floor plans based on either one-, two-, or three- story units that had been previously built.⁸⁰ Designs were chosen from across Europe, including Vienna and the United States, and were meant to “offer practical solutions based on the highest, economic values” for the specific cities or countries under examination.⁸¹ Floor plans, rather than photographs and exterior drawings, were used in the display.

In addition to his involvement with CIAM, Neutra encountered new approaches to mass housing when he lectured at the Bauhaus for a month in 1930. Mies van der Rohe, who had succeeded Gropius as the new director when the Bauhaus moved from Weimar to Dessau, invited him. Reminiscing on this experience in a later essay, Neutra wrote that “a clear architectural lesson came out of the Bauhaus set-up.”⁸² Gropius had left the Bauhaus in 1925, but Neutra observed the architect’s lasting impact on the masters and students at the school. He praised the school’s ability to accept and excel in producing an “architectural norm” or “standardized dwelling” without forcing architecture or its inhabitants into a monotonous pattern.⁸³ Having followed the unification of art and technology as exemplified by the Haus am Horn, the Bauhaus now provided a laboratory

⁸⁰ CIAM, *Die Wohnung für das Existenzminimum*, Kraus reprint (Stuttgart: Julius Hoffman, 1933), 46. The designs were re-presented in the book. In a preface to the designs, the authors wrote, “The following Ground-plan schemes illustrate almost completely the material of the Exhibition entitled: “Homes for Minimum Incomes.”

⁸¹ Mumford, 46.

⁸² Richard Neutra, *Nature Near: Late Essays of Richard Neutra*, ed. William Marlin (Santa Barbara: Capra Press, 1989), 179.

⁸³ *Ibid.*

for the exploration of standardization in increasingly formal terms. When Neutra received the Vienna commission, the minimum dwelling surfaced as the most immediate architectural problem that needed to be demonstrated.

The Vienna Werkbund was established in 1913 and grew out of the influence of the German Werkbund, which was founded in 1907. The German Werkbund emphasized quality, in terms of both the production of objects by hand and by the machine, as the aim of their organization.⁸⁴ According to historians Richard Pommer and Christian F. Otto, the Werkbund emphasized the aesthetics of form, focusing on the “casings of products and the shells of buildings over their mechanics or structure.”⁸⁵ In 1927, the German Werkbund constructed a housing exhibition at Weissenhof, near Stuttgart. Mies supervised the design of the *Siedlung*, which was intended to be a “testing station for new techniques and materials as well as new architectural concepts.”⁸⁶ While providing an important model for worker’s housing, the project was widely recognized for its formal appearance.⁸⁷ Both the individual buildings and the exhibition presented a cohesive view of the new architecture of the modern movement.

⁸⁴ Herman Muthesius, “Aims of the Werkbund (excerpt),” in *Programs and Manifestos on 20th-Century Architecture*, ed. Ulrich Conrads, (Cambridge, MA: MIT Press, 1970), 26.

⁸⁵ Richard Pommer and Christian F. Otto, *Weissenhof 1927 and the Modern Movement in Architecture* (Chicago: University of Chicago Press, 1991), 6.

⁸⁶ Searing, 112. Other *Siedlung* were developed by different Werkbund groups in Brno, Basel, Zurich, Breslau and Prague. Vienna was the last to be built.

⁸⁷ Pommer and Otto, 2.

The *Siedlung* built by the Vienna Werkbund was originally planned for 1929 as a nationalist response to the *Weissenhof Siedlung* (Fig. 21).⁸⁸ After financial delays, the construction of the units was completed in 1932. For two months, beginning on June 5, the site and the individual units were open to the public. Each unit contained furniture chosen by the architects and model rooms. Detached units and small, multi-family row houses comprised the Vienna *Siedlung*, which, by contrast with the Weissenhof Siedlung, contained no apartment buildings. Despite Frank's plan for the site to include various styles of modernist architecture, the completed exhibition continued the modern idiom of strong geometric outlines that gave the impression of industrial production. Like CIAM's 1929 exhibit, which displayed floor plans detached from the appearance of their original buildings, the Vienna Werkbund exhibition linked the formal characteristics of modernism with the aims of rationalization and standardization of the minimal dwelling. Modernist architecture was promoted as the appropriate expression for the mass housing building type.

A poster for the public exhibition singled out the modernist style of the designs (Fig. 22). The process of photomontage heightened the planar qualities of the unit facades, drawing attention to their aesthetic form. The poster's formal emphasis echoed the writings of American historians Henry-Russell Hitchcock and Philip Johnson. In their seminal 1932 Museum of Modern Art in New York exhibition, *Modern Architecture: The International Style*, they classified modernist architecture according to

⁸⁸ Friedrich Achleitner, "The Österreichischer Werkbund and Its Relations with the Deutscher Werkbund," 110.



Figure 21. View of the Werkbundsiedlung, Lainz, Vienna, 1932.



Figure 22. Poster for Vienna Werkbundsiedlung, 1932.

a stylistic rubric of volumes, balance and surface. Both Neutra's Lovell House and his Zehlendorf houses were included in the exhibition. The latter were praised for their "projecting slabs."⁸⁹ Hitchcock's and Johnson's exhibition provided a new means for accustoming the public to developments in modern architecture. Flat roofs, clear geometries and surfaces evoking industry became public signifiers of a building in the International Style.

Neutra's house, pictured in the upper left of the Werkbund poster (Fig. 22), was a simple, rectangular cube accented by a small band of punched-out windows on the south. His design was one of only three single-family units in the *Siedlung* and the smallest overall. The floor plan (Fig. 23) shows that it is a one-bedroom unit, with slightly more space allotted for the traditionally public area of the living room than the bedroom. The design includes similar features to a floor plan for a minimal dwelling displayed in CIAM's 1929 exhibition, particularly the combined space for the kitchen, dining and living room (Fig. 24). Compared to Neutra's Zehlendorf houses, the Vienna floor plan is less rigidly structured, but still combines several uses into one space. The combined living and dining room is only partially separated from the kitchen by a wall. A bedroom, bathroom and closet occupy the other section of the house.

By contrast to the CIAM design, the novel feature that Neutra's house offered to the Viennese public was the rooftop terrace, which was accessed by an external ladder

⁸⁹ Henry-Russell Hitchcock and Philip Johnson. *Modern Architecture: The International Style* (New York: W.W. Norton and Co., 1932), 157.

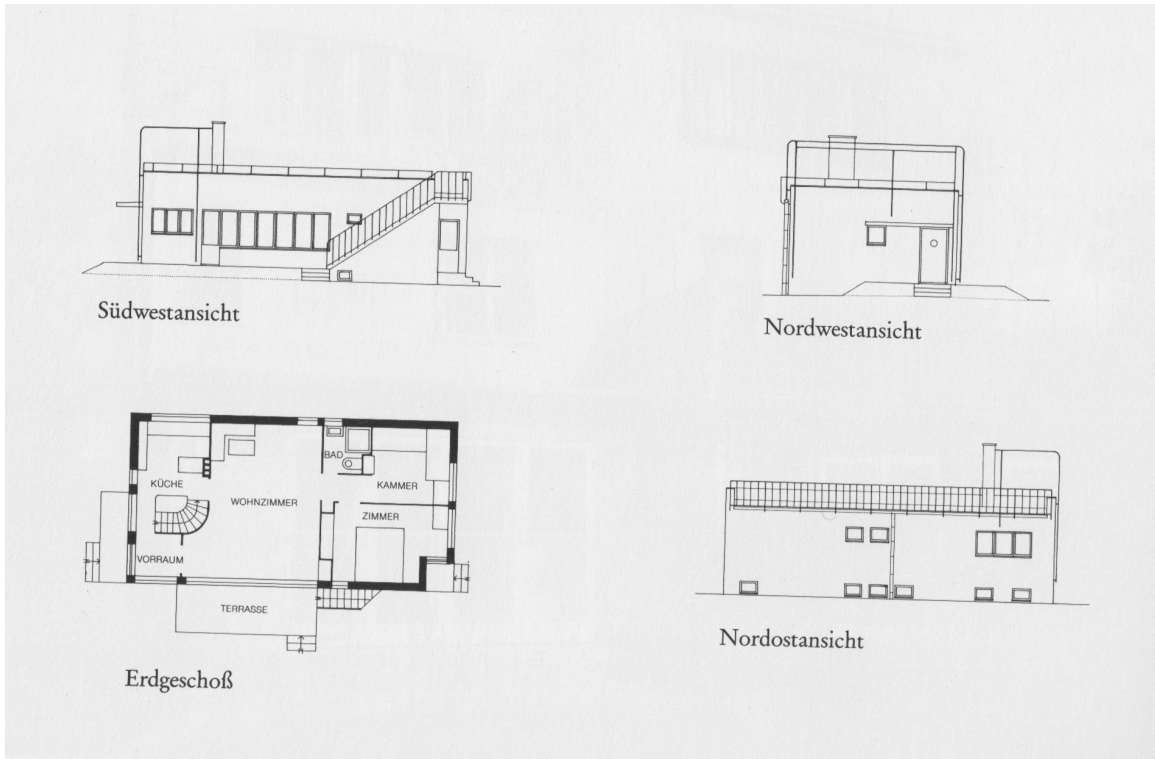


Figure 23. Floor plan for Richard Neutra's Vienna Model House, 1932.

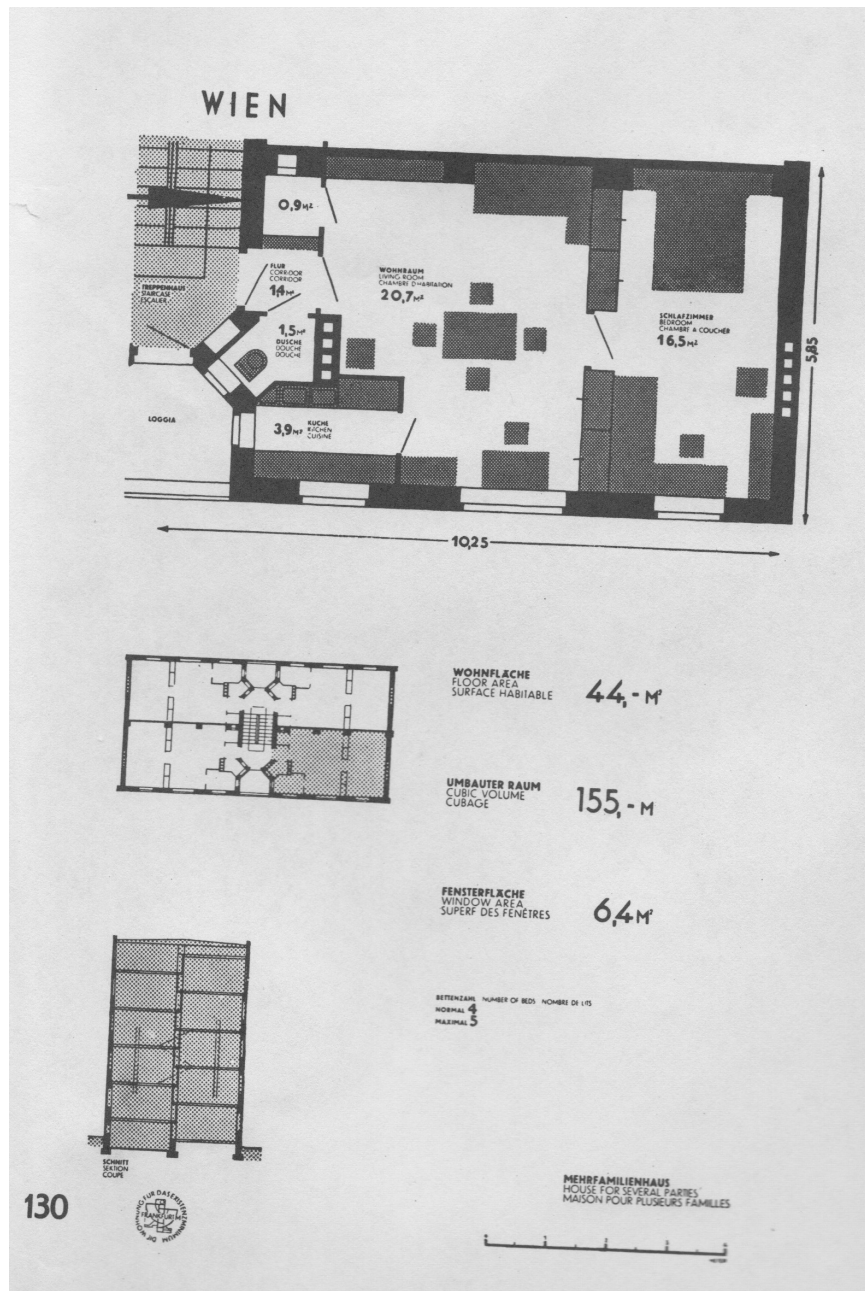


Figure 24. CIAM, Plan for a minimum dwelling for Vienna, 1929.

from the ground-floor terrace.⁹⁰ The low line of the single-story house and the exterior placement of the staircase presumably invited observers to ascend onto the rooftop, where the terrace provided them with a demonstration of the efficiency of the design. Neutra maximized the small footprint of the unit by transforming the entire width of the roof into a useful space. He essentially doubled the living space of his 600 square foot design, albeit only if the terrace could be utilized in the rare, warmer months in Vienna. By contrast with the Zehlendorf project, Neutra moved a demonstration of a new conception for interior spatial arrangement to the exterior, thereby conveying a rationalized image of *Existenzminimum* to the exhibition viewer.

In both the Zehlendorf project and the Vienna model house, Neutra demonstrated to the public the efficient organization of interior space. Between the completion dates of the designs, the formal attributes of modern architecture became increasingly recognizable. The following chapter will discuss Neutra's process of demonstration as it pertains to American consumer culture and the problem of how to demonstrate a modern house.

⁹⁰ A restoration project undertaken by the Austrian government restored the units to their original color schemes. The site was characterized by a range of pastel colors. See Adolf Krischanitz and Otto Kapfinger, *Der Wiener Werkbundsiedlung: Dokumentation einer Erneuerung*, (Vienna: Compress Verlag, 1985).

Chapter 2: The San Diego World's Fair Model House and the Plywood Demonstration House (1936)

Study these houses. Try living in them. Take a long look at the exterior then concentrate on the floor plans, moving slowly and thoughtfully in mind's eye from room to room. Presently you will become aware of the problems of planning in a more professional degree and learn what a talented architect can accomplish within the restriction of four walls. Which is distinctly worth your while. Because talented as the architect may be, his indispensable and chief collaborator is always the client. Turn the page for Lesson One.⁹¹

- Editors of *Architectural Forum*

The “problems of planning” the small house became a pressing concern in magazine articles and books on residential architecture in the 1930s.⁹² For example, beginning in 1936, the editors of the architectural trade magazine *Architectural Forum* teamed up with publishers Simon and Schuster to produce a reference book for the American public that offered solutions on the construction of the small house. For the 1938 edition of *The Book of Small Houses*, the editors presented a “twice distilled collection” of houses culled from designs previously published in the magazine.⁹³ Throughout their introductory statements, they encourage readers to carefully examine the “131 contemporary houses” they compiled as a “national demonstration of sound architectural planning, design, construction, equipment and furnishings.”⁹⁴ Each house

⁹¹ Editors of *Architectural Forum*, *The 1938 Book of Small Houses* (New York: Simon and Schuster, 1937), 1.

⁹² Ibid.

⁹³ Ibid.

⁹⁴ Ibid.

was intended to be a “lesson.” The reader is prompted to simply “turn the page” to a design in order to commence the learning process.⁹⁵

The proliferation of publications such as the *Book of Small Houses* coincided with a critical juncture in the American housing industry. In 1934, the National Housing Act (NHA) was implemented in order to resurrect the nation’s housing industry that had been left in ruins by the Depression. In response to a foreseeable upsurge in building activity brought about by the act, private companies as well as government agencies such as the Federal Housing Authority (FHA) attempted to introduce basic tenets of architectural practice to the broader consumerist public. The “demonstration” of solutions to a crisis in the home building industry expanded beyond print format. Drawing on the examples built by the European Werkbund, model housing displays became popular attractions at American world’s fairs and familiar sites along the main streets of cities and towns across the nation in the 1930s.⁹⁶ The construction of full size houses and the presentation of scale models provided the lay audience that visited these events with a direct experience of both new architecture and advances in housing technologies. The displays served a similar function to reference books such as the *Book of Small Houses*. Visitors to these events were expected to leave with a new, professional understanding of how to solve the housing crisis—the construction and modernization of the small house.

⁹⁵ Ibid.

⁹⁶ Gabrielle Esperdy, *Modernizing Main Street: Architecture and Consumer Culture in the New Deal* (Chicago: University of Chicago Press, 2008), 69-72.

Between 1935 and 1936, Neutra participated in two housing expositions: the model housing exposition at the 1935-36 California-Pacific International Exposition, called “Modeltown” in San Diego, and the California Home and Garden Show in Los Angeles. Both the San Diego and Los Angeles expositions were some of the first model home displays sponsored by the FHA.⁹⁷ Unlike the exploration in structural conceptions of interior space presented by the Zehlendorf Housing project and the model house for the Vienna Werkbund, what immediately stands out in Neutra’s designs for these expositions is an emphasis on building materials and methods of construction. Both the model house for San Diego and the Plywood Demonstration House were particularly singled out by the press for demonstrating the use of new building materials.⁹⁸ The scale model presented at the San Diego world’s fair was constructed with a steel exterior, while the Plywood Demonstration House was constructed out of plywood—a material then only beginning to be explored in home building.

This chapter examines reasons for why Neutra’s model house for the 1935 San Diego World’s Fair and the Plywood Demonstration House demonstrate materials. A broad discussion of building materials and their proper use in residential construction is a reoccurring, yet often overlooked, subject in New Deal-era housing policies and literature. In this chapter, I will explore how Neutra’s design process operated within this

⁹⁷ The FHA had previously participated in the National Housing Exposition which opened on May 18, 1935, see, “F.H.A. Show Commended: Official Praises Local Plan, Los Angeles Exhibit Area First to Allow Proper Display, He Says,” May 7, 1935, 9.

⁹⁸ For descriptions of Neutra’s model house for the San Diego exposition, see “Redwood, Steel Houses Attract Interest in Palace of Better Housing,” *San Diego Union*, May 30, 1935, 3:8; the Plywood Demonstration House is identified by critics as a “modern-type” dwelling, see “Two Houses in Group of Residential Structures Designed for New Exhibit,” *Los Angeles Times*, Feb. 2, 1936, E1.

debate and how his demonstration of materials created a form of systematic guidance that allowed the viewer to understand prefabrication and spatial layout behind the houses presented at the expositions.

The National Housing Act and the Making of the Modern Home

A closer analysis of the NHA and its impact on the housing industry provides a foundation for understanding the San Diego model home and the Plywood House. A widespread lack of confidence in the housing industry was a major impetus for the establishment of the NHA in 1934.⁹⁹ In an announcement on the NHA, President Franklin Delano Roosevelt stated that “providing better homes for the people of the nation” would be the “first principle of our future program.”¹⁰⁰ Under this new policy, the FHA was placed in charge of insuring loans made by lending institutions to borrowers looking either to repair, remodel or construct new residential and commercial properties. The FHA’s Title I covered rules and regulations on repair and remodeling projects, while Titles II and III dealt with those for new construction and mutual mortgage insurance.¹⁰¹

Federal Housing Administrator Stewart McDonald argued that the old mortgage system in the United States of the 1920s failed because of a lack of appraisal standards. According to McDonald, many individuals purchased “badly constructed, ‘jerry-built’”

⁹⁹ Stewart McDonald, “The Federal Housing Administration,” *The 1938 Book of Small Houses* (New York: Simon and Schuster, 1937), xxi.

¹⁰⁰ Franklin Delano Roosevelt quoted in, *The National Housing Act-- Its Background, Its Provisions, Its Possibilities* (New York: Time, 1934), 3.

¹⁰¹

houses under the previous system.¹⁰² “Faulty construction” and the “use of poor materials” added excessive burdens to the homeowner, forcing many to default on their homes under the previous system.¹⁰³ As a result, quality of built design became a core issue of the new policy and was closely linked to the Insured Mortgage System (IMS) introduced by the Act.

Houses insured by the FHA had to meet newly established national standards of design and construction.¹⁰⁴ In describing the IMS, McDonald outlined the authority of the administration in overseeing these standards, stating,

The Administration has full power to reject any loan which is not economically sound. When it appears that the house, offered as security, is not well planned, well built, and well suited to the neighborhood in which it is located, the property rating of the underwriting staff can recommend the rejection of the loan.¹⁰⁵

The concept that a building had to be “well planned, well built, and well suited to the neighborhood” in effect raised national consciousness of the importance of good design and construction for homes in the 1930s.¹⁰⁶ New property appraisal standards were written that established a practice in which each application for a loan required close inspection of either the built home or proposed plan. Regional offices equipped with field inspectors and architectural engineers were also set up as part of the FHA’s standardization of appraisal practices. In his description of the procedure, McDonald

¹⁰² Editors of *Architectural Forum.*, xxii.

¹⁰³ Ibid.

¹⁰⁴ “The Brewing of FHA’s Title II,” *Architectural Forum*, Nov. 1934, 380.

¹⁰⁵ Editors of *Architectural Forum.*, xxiii.

¹⁰⁶ Ibid.

stated, “Plans and specifications for new houses are examined by the Administration before the house is started. During the course of construction, inspectors visit the site and thoroughly check the work for conformity to specifications.”¹⁰⁷ He further stated, “the house must be as good as originally specified, or it will be rejected.”¹⁰⁸ The goal of enforcing these standards over construction was to ensure that in the long run, the funds insured by the NHA would promote the “overall lowering of housing costs.”¹⁰⁹

The professionals involved in designing and building such structures were essential to this call for better housing. In 1938, Walter R. McCornack, Chairman of the Housing Committee of the American Institute of Architects (AIA) perceptively observed that both the FHA and the Home Owner’s Loan Corporation advised the home owner to seek “proper architectural service, consisting of plans, specification, and *supervision*.”¹¹⁰ He went on to argue that the average home owner up to that point had usually secured plans through stock plan service bureaus as well as plan books. They had then hired a builder to execute the design. The duo of the home owner and builder, as McCornack argued, was ultimately unsuccessful. The product of their efforts often resulted in poorly constructed houses.

¹⁰⁷ McDonald, xxiii.

¹⁰⁸ Ibid.

¹⁰⁹ “The Brewing of FHA’s Title II,” 381.

¹¹⁰ Walter R. McCornack, “The Architect,” *The 1938 Book of Small Houses* (New York: Simon and Schuster, 1937), v.

McCornack, instead, offered up a new team model, that of the homeowner and architect.

He stated,

The architect is the only impartial referee standing between the owner and the other elements in the building industry, and his professional duty is to carry out the various tasks which are his obligation to perform to the full extent of his ability. This is a challenge to the architect, and to acquire and maintain the confidence of the public, they must give unstintingly of their time and training in this most important field of architecture—the medium- and low- cost home field.¹¹¹

The architect's new role was to maintain public confidence by ultimately protecting homeowners from unscrupulous builders and bad investments. Rather than adopting an artistic role, the architect had to be a rational member of the team well-versed in structural problems and the new terms set forth by the act.¹¹²

While providing an impetus for the architectural profession to overhaul its image, the FHA, through its Better Housing campaign, promoted a rubric for how architects, home owners and private business owners could bolster the optimistic goals set forth by the NHA.¹¹³ Historian Gabrielle Esperdy has referred to this undertaking as a “modernization effort.”¹¹⁴ While Esperdy traces this process through the remodeling of storefronts along main streets during the New Deal, her discussion of modernization as “a

¹¹¹ Ibid, v-vi.

¹¹² These sentiments over the role of the architect echoed those of debates occurring within the A.I.A.'s annual meetings between 1931 and 1935, as reported by *Architectural Forum*, see, “A.I.A. Convention,” *Architectural Forum*, June 1935, 580.

¹¹³ *Better Selling of Better Housing* (Washington, D.C: Federal Housing Administration, 1935).

¹¹⁴ See, Esperdy *Modernizing Main Street: Architecture and Consumer Culture in the New Deal*.

form of practice” is also pertinent to this study on residential construction.¹¹⁵ Drawing similarities to the process of demonstration, modernization by definition is a process requiring the physical change to a pre-existing object. In terms of the goals outlined by the FHA, the residential or non-residential edifice would become modern only after going through a process of modernization. One of the most potent forms of modernization was the physical transformation of a building; modernization became synonymous with remodeling.¹¹⁶ In terms of newly constructed buildings, a home was modern if it included the latest in new technologies and building materials. While sleek objects such as dishwashers and refrigerators were commonly advertised for their ability to make a home modern, building materials as nondescript as electrical wiring and air conditioning systems were also promoted as products capable of making a house modern.

Through participation in expositions, production of national publications, and the establishment of local agencies, the FHA’s Better Housing program conveyed these strategies of modernization directly to the public.¹¹⁷ Within the same year that the NHA was announced, the Better Housing program, in cooperation with the Southern California Chapter of the AIA, organized an architectural competition to design an auditorium that would accommodate a housing exposition in Los Angeles.¹¹⁸ The winning design for the Pan-Pacific Auditorium was contributed by the architectural team of Plummer,

¹¹⁵ Ibid., 119.

¹¹⁶ Ibid.

¹¹⁷ *Better Selling of Better Housing*.

¹¹⁸ “Los Angeles Housing Exposition,” *California Arts and Architecture*, Feb. 1935, 9.

Wurdeman and Becket. Built in the Fairfax District of Los Angeles in 1935, the *LA Times* declared it to be the first “housing exposition structure of the kind in the United States.”¹¹⁹

The exposition itself opened on May 18, 1935 and was advertised as a “demonstration of what modern constructive skill and taste can achieve.”¹²⁰ Exhibitors were chosen by the Better Housing committee in cooperation with the FHA.¹²¹ The displays included a full scale cottage sponsored by the *Los Angeles Times* that was built with a steel frame, as well as a “Village of Tomorrow”—a scale model of a complete city. On the FHA’s participation at the exposition, Henry G. Guthrie, National Chief of the Exhibition Division of the FHA stated, “We’ll have a trained staff on duty to aid in giving detailed information, and filing of applications for both modernization and new construction loans will be possible right in the exposition building.”¹²² W.D. Flanders, Director of the Field Division of the FHA announced that, “It is much easier for a person to visualize a home or improvements to one by seeing them—that’s why I believe that the housing exposition here will be a great stimulant for increased building activity in Southern California.”¹²³

¹¹⁹ “National Housing Exposition,” *Los Angeles Times*, May 18, 1935, A4.

¹²⁰ Ibid.

¹²¹ “Los Angeles Housing Exposition,” 9.

¹²² “F.H.A. Show Commended,” 9.

¹²³ “Praise Won on Housing,” *Los Angeles Times*, Apr. 8, 1935, A1.

The decision to hold the first show of this kind in Southern California was not coincidental. The region, which underwent a significant population boom in the previous decade, needed new housing construction. By the beginning of the 1930s, Los Angeles surpassed the 1 million-population mark, growing to 1.2 million.¹²⁴ The outlying regions of the city also experienced growth, doubling from 936,000 to 2,208,000.¹²⁵ The single-family house characterized much of the evolving landscape. In 1930, 93.9 percent of housing in Los Angeles was made up of single-family units.¹²⁶ Characterizing both the focus of the FHA's program at the National Housing Exposition and the panoramic view of Southern California, the single-family house became a visual focus in the public eye. In the months following the exposition, critics closely followed patterns of construction in the area. In December 1935, the *LA Times* reported that the exposition, which received over 200,000 visitors in its first two weeks, "set a construction-promoting pace that attracted widespread attention."¹²⁷

Model House for the California-Pacific International Exposition (1935)

If the National Housing Exposition produced a tangible result, it was that demonstrations, if executed correctly, could cultivate a broad market for both

¹²⁴ Kevin Starr, *Endangered Dreams: The Great Depression in California* (New York: Oxford University Press, 1996), 293.

¹²⁵ David Gebhard and Harriette Von Breton, *Los Angeles in the Thirties, 1931-1941* (Los Angeles: Hennessey & Ingalls, 1989), 18.

¹²⁶ *Ibid.*

¹²⁷ "House Show Advocated," *Los Angeles Times*, Dec. 15, 1935, E2.

modernization of existing housing and new construction. At the same time planning for the National Housing Exposition was underway, the San Diego regional office of the Better Housing Program also organized a model housing display sponsored by the FHA for the 1935-36 California-Pacific International Exposition. The exhibit opened two weeks after the National Housing Exposition, on Memorial Day of 1935. The San Diego display was touted as the largest and most comprehensive exhibit “ever conceived or contemplated by the Better Housing Program.”¹²⁸ According to promotional brochures released by the Better Housing program, the purpose of the FHA-sponsored exhibits was to “clearly and concisely tell the story of the benefits to be derived from the National Housing Act.”¹²⁹

The Better Housing Program’s didactic aims translated into three programs along El Prado, the Fair’s main artery: the Palace of Better Housing, Modernization Magic and Modeltown. The Palace of Better Housing featured booths on financing, house designs and community planning.¹³⁰ For the 1936 season of the fair, the FHA placed 12 fifteen-foot high “talking-picture towers” around the auditorium.¹³¹ At the base of the “talking-picture” towers, frequently asked questions on home building appeared on a screen.

¹²⁸ Matthew Bokovoy, “Specters of Social Housing, San Diego, 1935,” in *Designing Tomorrow: America’s World’s Fairs of the 1930s*, ed. Robert W. Rydell and Laura Burd Schiavo (New Haven: Yale University Press, 2010), 160. Bokovoy has analyzed the 1935-36 CPIE its impact in his book *The San Diego World’s Fairs and Southwestern Memory, 1880-1940* (Albuquerque, NM: University of New Mexico Press, 2005) and “The FHA and the ‘Culture of Abundance’ at the San Diego World’s Fair,” *Journal of the American Planning Association*, 68: 4 (2002): 371-386.

¹²⁹ Ibid.

¹³⁰ Bokovoy, *The San Diego World’s Fairs and Southwestern Memory, 1880-1940*, 171.

¹³¹ “Two Carloads of Special Equipment Due Today for \$150,000 FHA Exhibit,” *San Diego Union*, Jan. 7, 1936, 10.

When a visitor pushed a button near one of the questions, an answer played and an illustration appeared at the top of the tower.

Modernization Magic and Modeltown were outdoor exhibits located at the rear of the Palace. Modernization Magic is featured in the lower right of a photograph from the fair's run (Fig. 25). Located in front of the FHA Information Headquarters booth, the display featured models of run down homes placed on a revolving stage. As the platform rotated, modernized versions of the houses became visible, demonstrating the visible transformation of the "dilapidated, antiquated village" into a modern community.¹³² In addition to the straightforward demonstration of the FHA's modernization effort, the display's plaques and brochures explained the low costs of remodeling and the attractive interest rates on loans for improvement projects made possible by the NHA.

Whereas the community represented in Modernization Magic was capable of being modernized through the NHA's Title I program, the 56 scale model homes featured in Modeltown and arranged in a neighborhood-like setting were a demonstration of modernization under Title II's new construction. As stated on each brochure for the models, the message of Modeltown was to "Own Your Own Home" (Fig. 26). All of the designs represented a newly constructed single-family home that could be built for either "\$30 per month, \$40 per month, \$50 per month, and \$60 per month, inclusive of interest, taxes, fire insurance and amortization of principal."¹³³

¹³² Bokovoy, *The FHA and the 'Culture of Abundance' at the San Diego World's Fair*, 374.

¹³³ Modeltown Brochure.



Figure 25. Entrance to the Modeltown Exhibition at Balboa Park, San Diego, 1925-36.

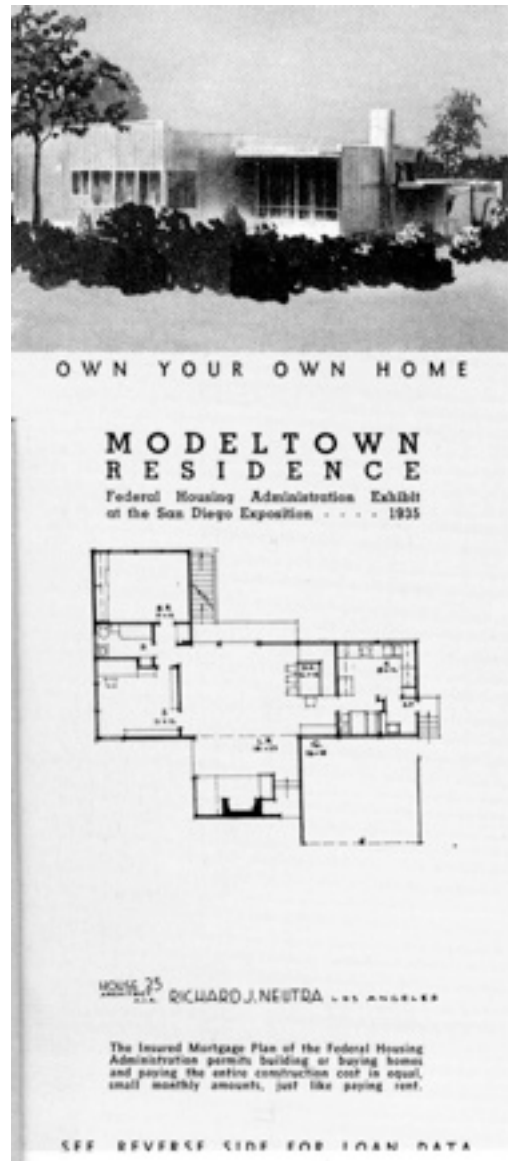


Figure 26. Richard Neutra, Brochure for the model house at the San Diego World's Fair, 1935.

In planning Modeltown, the executive director of the San Diego Better Housing Program committee, Stuart Ripley, originally proposed a nationwide competition of winning house designs from each state that would travel around the country and then be displayed at the fair. In the end, FHA administrators deemed this nationwide contest too expensive. Instead, a competition in which states “west of the Rockies” could participate was organized.¹³⁴ The method of choosing designs through an architectural competition paralleled the strategies used by the organizing committee of the National Housing Exposition. While the practice was not new, it held new significance during the New Deal. The Better Housing program utilized the format as a marketing tool to promote FHA policies to the architectural profession. Having contributed an impressive design to the National Housing Exposition’s auditorium competition, Neutra was certainly aware of the Better Housing program’s efforts to stimulate the building industry in Southern California.¹³⁵ His submitted design for Modeltown, nonetheless, was one of eight designs by architects working in Southern California chosen for the display.

The models themselves, which averaged 3-feet in height, were arranged in a neighborhood-like environment (Fig. 1 and 25). The photographs from the fair suggest that visitors to the exhibition were meant to walk around designated pathways and inspect the model before them. The overall goal of the exhibit was for the “the public to inspect materials and obtain authentic and general information in the fields of real estate,

¹³⁴ Ibid., 164-5.

¹³⁵ See two drawings in oversize folder 1260, Richard and Dion Neutra Papers (Collection Number 1179). Department of Special Collections, Charles E. Young Research Library, UCLA.

architecture, engineering, contracting, financing, building materials, furniture, decorations, etc.”¹³⁶

In the spirit of FHA’s construction standards for actual houses, each model was meticulously assembled. One design reportedly required “the labor of four men for three days to shingle the roof alone.”¹³⁷ The photograph of Neutra next to his model suggests that the architect, rather than a group of laborers, put the “finishing touches” on the house (Fig. 1). Contemporary newspaper articles state that Neutra’s model was made out of steel provided by the Palmer Steel Company.¹³⁸ Glass was also used to complete the design, visible in the reflection of Neutra’s pant leg in the corner of the model.

Historian Matthew Bokovoy has pointed out similarities between the San Diego model house and Neutra’s design for the small house built for clients William and Melba Beard in Pasadena in 1934 (Fig. 27).¹³⁹ Both designs feature vertical metal siding and comprise a two-car garage, kitchen, study, bedroom and a large living and dining room (Fig. 26 and 28). They also feature a roof terrace accessible by an outdoor ladder. Three drawings in Neutra’s archive dated April 16, 1934 and labeled “FHA Modeltown Home Selector” coincide with the Beard design’s exterior elevations, foundation plan, footing sections, and plot and roof plan.¹⁴⁰ While the year on the drawing may be an

¹³⁶ FHA Director James Moffet, quoted in Bokovoy, “The FHA and the ‘Culture of Abundance,’” 6.

¹³⁷ “Modeltown Viewed by Thousands,” *Los Angeles Times*, Aug. 25, 1935, 16.

¹³⁸ “Redwood, Steel Houses Attract Interest in Palace of Better Housing,” 8.

¹³⁹ Bokovoy, *The San Diego World’s Fairs and Southwestern Memory, 1880-1940*, 168.

¹⁴⁰ Oversize folder 930, Richard and Dion Neutra Papers (Collection Number 1179). Department of Special Collections, Charles E. Young Research Library, UCLA.

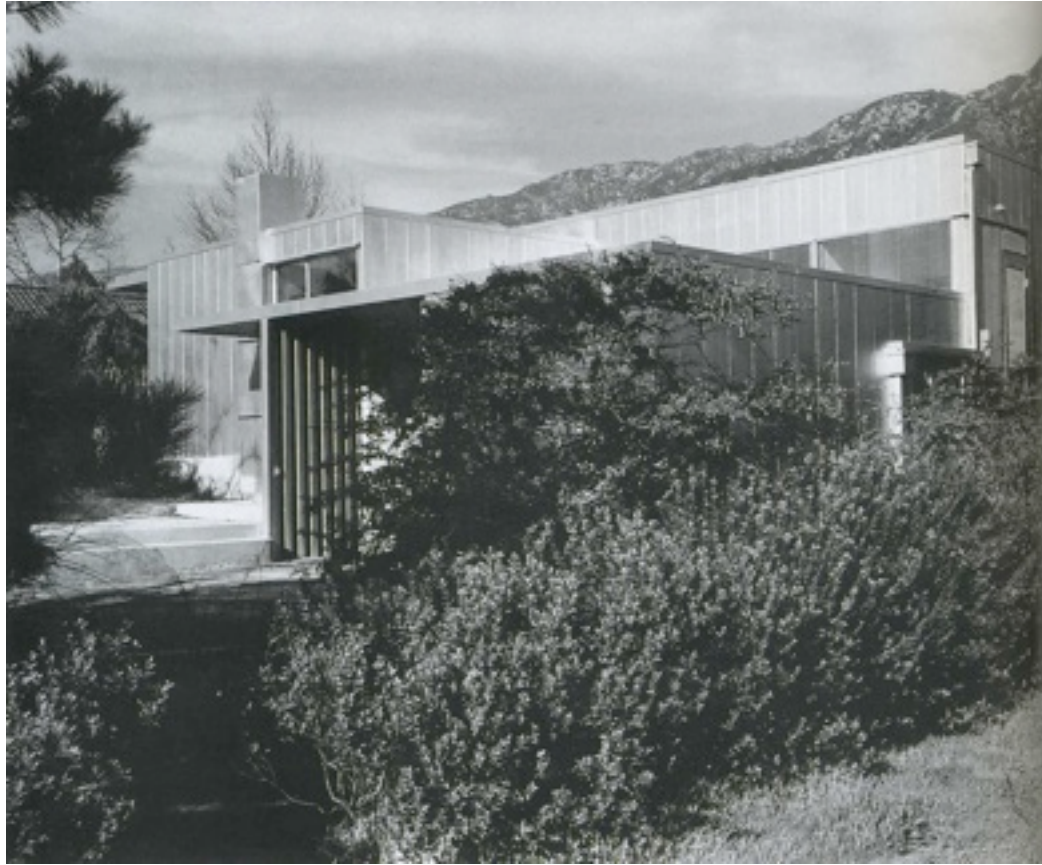


Figure 27. Richard Neutra, View from the southeast, Melba and William Beard House, Altadena, California, 1934-35.

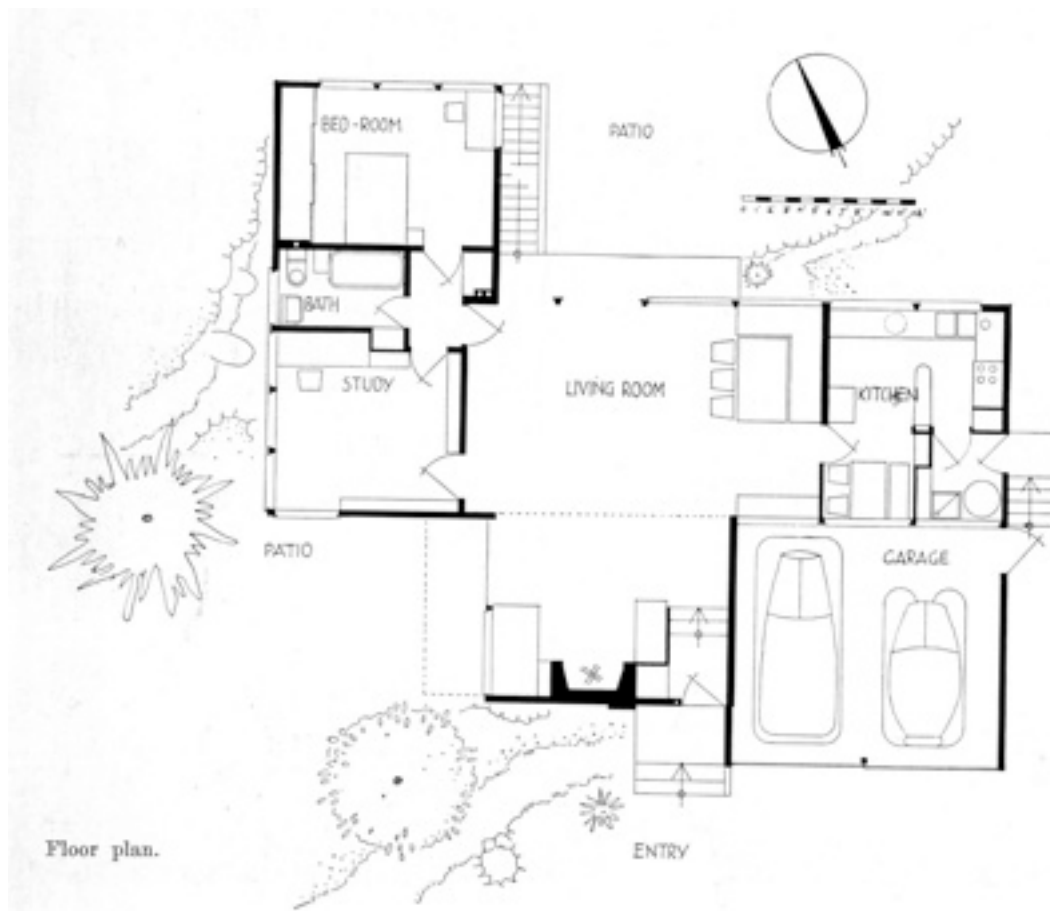


Figure 28. Floor Plan, Beard House, 1934-1935.

error, it nonetheless suggests that Neutra saw value in re-presenting the Beard House within the highly trafficked and publicized arena of the fair.

In the context of the San Diego fair, Neutra's scale model became a surrogate for the Beard House. Other designs in Modeltown suggested the use of steel framing, however, Neutra's was the only model to use steel for exterior siding. While a house made of steel created a certain level of spectacle among viewers and the press,¹⁴¹ Neutra's decision to reiterate the design can be seen as an attempt to demonstrate to the average observer both the prefabrication and lifestyle benefits that can be gained from new technological materials and construction systems.

The main volume of the Beard house was constructed using a framing system created by Los Angeles architect and contractor Vincent Palmer. According to architectural historian Edward R. Ford, the central idea of the Palmer system was the appropriation of "a type of metal decking, the Keystone, manufactured by the H.H. Robertson Company, to form what is essentially a load-bearing wall."¹⁴² In a lecture to the U.S. Navy on the subject of the Beard House, Neutra stated that the metal panels,

were meant to play their role as floor decks, but I used them with other enthusiastic collaborators as wall sections, quickly assembled and fitted [welded] together with their ceilings [either the same decking or open web steel joists for areas where spans were longer].¹⁴³

¹⁴¹ "Redwood, Steel Houses Attract Interest in Palace of Better Housing," and "'Breathing' House Model is Put on Display in Expo," *San Diego Union*, June 10, 1935. The newspaper notes, "The strange home is built entirely of steel with exposed portions coated aluminum." The article also notes, "That homes of the kind shown at the exposition have been constructed in Pasadena" (the Beard House was the only built example).

¹⁴² Ford, 93.

¹⁴³ Lamprecht, *Richard Neutra, 1892-1970: Survival Through Design*, 37.

The interior steel walls were plastered over, while the exterior was covered in panels of steel sheets and three coats of aluminum paint.¹⁴⁴ As seen in the photograph of the southeastern façade of the house, the panels produced a vertical rhythm across the smooth surface of the residence (Fig. 27). For the garage and entry porch, which required smaller roof spans, Neutra used the decking itself for both the materials of the walls and the roof. Neutra's construction of the roof in two different ways provided an intentional point for him to visually magnify the capabilities of the prefabricated product. The Robertson metal decking could be used easily for both instances where smaller or larger spans were required. As demonstrated by the scale of the Beard house, it was an ideal material to solve the problem of the small house.

In addition to employing prefabricated units for the framing of the house, Neutra also incorporated building elements from his Diatom House series in the Beard House.¹⁴⁵ As seen in a vertical section, the house rests on a 2-foot diatom-cement slab supported by steel joists (Fig. 29). Diatom, a naturally-based material, was combined with synthetic products and then steam-hardened. The finished product was similar in form to lightweight concrete.¹⁴⁶ The space between the upper and lower slabs of the foundation

¹⁴⁴ Ford, 93.

¹⁴⁵ He began the series in 1923 and continued to develop the concept over the next decades. In collaboration with architect Peter Pfisterer in the 1930s, he developed a project where standardized Diatom panels could be modified at the design stage for a variety of family sizes. See "'One-Plus-Two' Diatom House," *Architectural Record* (Jan. 1934): 32-33; Henry Robert Harrison, "Richard J. Neutra A Center for Architectural Stimulation," *Pencil Points* (July 1937), 428.

¹⁴⁶ W. Boesiger, ed., *Richard Neutra, 1923-50: Buildings and Projects* (New York: Frederick A. Praeger, 1950), 122.

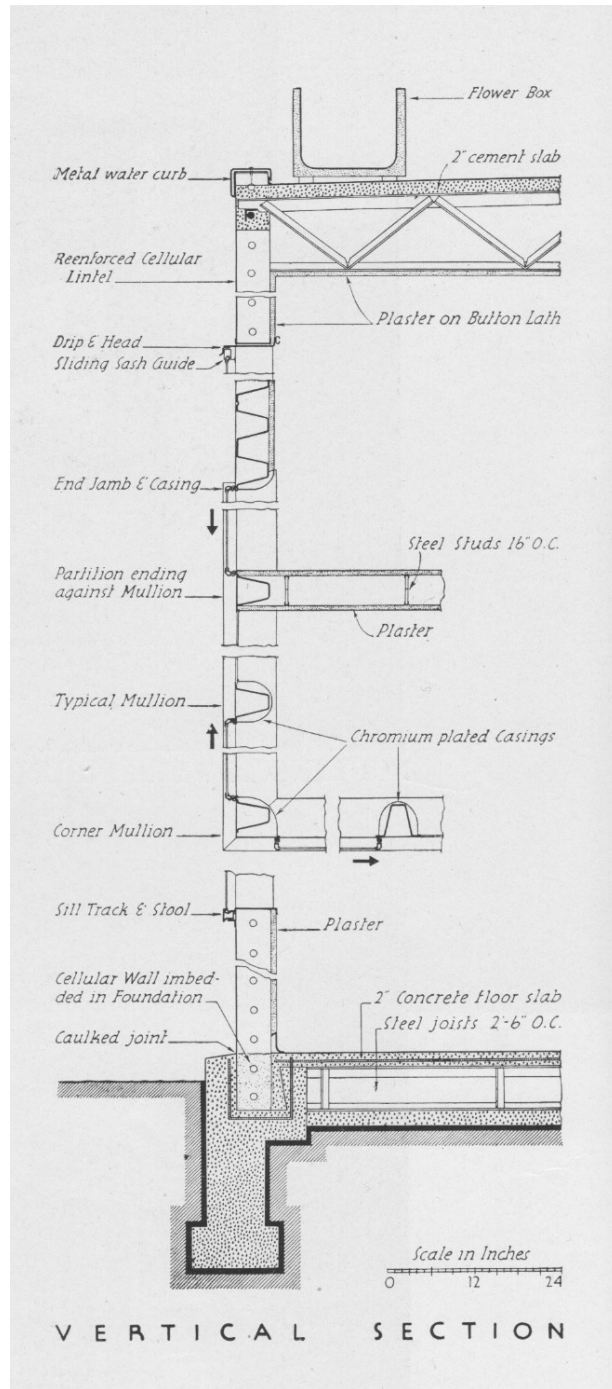


Figure 29. Richard Neutra, Vertical section, Beard House, 1934-35.

were divided into 6-inch plenum chambers. This innovative system made floor heating capable and became a typical feature in Neutra's later designs.

What spurred this design feature was his experience working with steel. The exterior of the Beard House worked in two ways: it provided structural support and gave space for functional advantages such as heating and cooling.¹⁴⁷ Small intakes at the base of the wall units allowed for a cooling system in the home. As the walls were exposed to the sun, convection currents drew heat away from the interior walls.¹⁴⁸ Due to good design and the mild California climate, air conditioning and heating systems were rendered unnecessary. The house, provided with such modern "products" as heating and cooling, was a modern product in and of itself.

In addition to the materials used for the structure, the spatial layout of the home reinforced Neutra's own rhetorical attempts to reconcile new materials with modern living. Similar to the pursuit of the minimum dwelling in the model for the Vienna Werkbund, the Beard House, at 1,200 sq. ft., epitomized the problem of the small house. The original layout is a simple geometric design of three wings. In the floor plan of the home, an attached, covered double garage is located on the southeast street façade (Fig. 28). The main entrance to the home is situated to the left of the garage. A large living and dining space occupies most of the main level, while the western portion of the house contains a study, bathroom and bedroom. The kitchen is located to the right of the living

¹⁴⁷ Lamprecht, *Richard Neutra, 1892-1970: Survival Through Design*, 37.

¹⁴⁸ Boesiger, 122.

room and could be accessed from either the interior of the home or through an exterior entrance located on the east façade. The roof deck was a prominent feature of the house situated above the bedroom and study spaces. Similar to Neutra's Vienna model house, the roof deck is accessible only by an outdoor stairwell. Sliding doors comprise the northern façade and allow access to both the garden and the stairwell to the roof deck (Fig. 30). Neutra envisioned the roof deck as a further usable living space for the Beards. In the elevation sketch for the house, patio furniture on the northwest corner of the deck is oriented toward the view of the Sierra Madre Mountains (Fig. 31)

The clients of the Beard House themselves responded positively to the design. In a letter to Neutra, the Beards declared, "Not only has our modern home destroyed the magpie spirit, but it has taught us that a home can be as easy to operate as a car."¹⁴⁹ The Beards found the interior living space to be wholly functional, similar to that of a car or machine. In a perspective of the house, an image of Melba working in the kitchen is juxtaposed next to an image of the Beard's vehicles in the garage (Fig. 31).

The Beard's comparison of their home to a "car or machine" warrants further inquiry. While the Beard design was a custom prototype for prefabrication and not

¹⁴⁹ Melba and William Beard quoted in, Hines, *Richard Neutra and the Search for Modern Architecture*, 329.

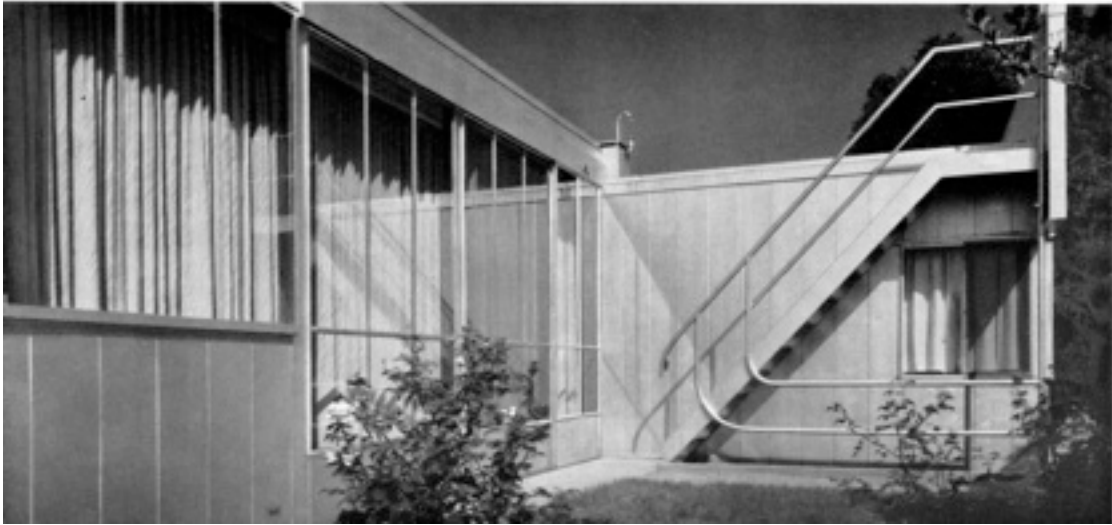


Figure 30. Stairway to roof garden, Beard House, 1934-35.

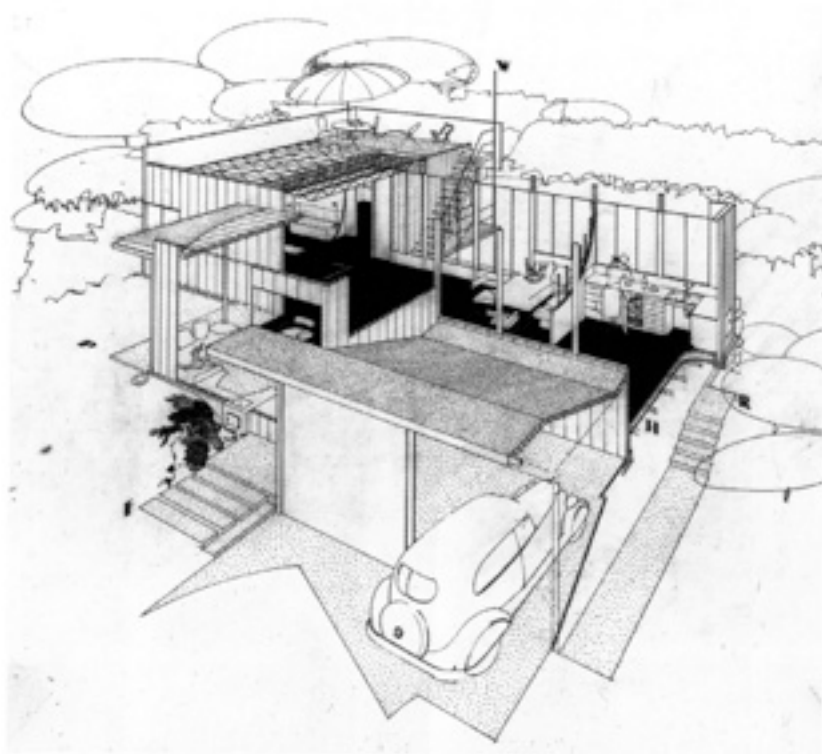


Figure 31. Perspective drawing, Beard House, 1934-1935. Published in Thomas Hines, *Architecture of the Sun: Los Angeles Modernism, 1900-1970* (New York: Rizzoli, 2010), 372.

prefabricated itself, it promoted a transformation in housing construction as well as consumer perception of this process. In a 1935 article on prefabrication, Neutra argued,

The well-integrated, standardized, pre-fabricated, assembled house is in conflict with mass prejudices, which have first to be dissolved. Obliging concessions to individualist formal diversification threaten the manufacture with economic failure. Model consciousness would have to be created in consumers, as has been done in the automotive field. The hand-made house cannot be camouflaged, without losing prefabrication advantages.¹⁵⁰

The “model consciousness” Neutra sees consumers having to adopt is based on an understanding of the standardization of building materials. Rather than being camouflaged, materials must be easily recognizable and understood in order to fulfill their functional program. The Palmer System allowed Neutra to bring the surface of the building system to the fore and make visible the material used for its construction. Neutra’s attention to creating a consumer consciousness recalls the FHA’s modernization effort as well as contemporaneous usage of the term streamlining. Esperdy argues that the term streamlining had the “same basic meaning as *modernizing* with only shades of difference between them. Both implied improved efficiency and appearance, but *streamlining* also implied speed while *modernized* implied newness.”¹⁵¹ Because of its use of prefabricated parts, the Beard House became a symbol for consumers to learn a way of viewing housing production and the lifestyle benefits that could be gained by this adoption of technology.

¹⁵⁰ Richard Neutra, “Problems of Prefabrication,” *American Architect* 123 (December 1935), quoted in Ford, 88-9.

¹⁵¹

By the time the design was replicated in model form at the world's fair, images of the Beard house had been published when the design won the Gold Medal in the "small house" category of the annual Better Homes in America competition co-sponsored by the *Architectural Forum* magazine and the Columbia Broadcasting System. The Better Homes in America annual competition was founded in the 1920s and later supported by President Herbert Hoover in order to promote the idea of home ownership, thus setting the stage for the goals set forth by the FHA.¹⁵² For the 1935 competition, the jury aimed to "discover and call attention to the best small houses *actually constructed* and to stimulate interest in eliminating faulty design and construction."¹⁵³ The images in the magazine, the actual built house in Pasadena and the model home presented at the San Diego world's fair made the design more accessible to the public. The alluring surface of the steel façade provided appeal through spectacle, but the design's actual construction made it a convincing, legible representation of the possibilities of new materials.

Plywood Demonstration House

While the second season of the San Diego fair was still in operation, Neutra contributed a design to the Los Angeles Exhibition of Architectural Building Materials sponsored by the Los Angeles Building Center. The exhibition was directed by Marie Louise Schmidt and her sister Florence Schmidt, who solicited promoters to sponsor the

¹⁵² Lamprecht, *Richard Neutra, 1892-1970: Survival Through Design*, 39.

¹⁵³ Joseph Hudnut, et al., "Better Homes in America," *Architectural Forum*, 399.

construction of the six houses and a group of administrative buildings.¹⁵⁴ Instead of proposing a house completed with the steel-based Palmer system, Neutra executed a plywood design (Fig. 32). The origins of this house overlap with both the FHA's Better Housing Program as well as the dates in which Neutra promoted the Beard House.

The layout of the Plywood House, like that of the model home for the San Diego fair, was based on an existing design by Neutra.¹⁵⁵ The Plywood House is “a reduced version” of a design submitted to the General Electric Company's Small House Competition of 1935 (Fig. 33).¹⁵⁶ On the origins of the competition, co-sponsor *Architectural Forum* described, “Something was needed to stimulate an interest in the design and production of small homes that would take advantage of new methods of construction, the most up-to-date of equipment, and the newly found government support of small home financing.”¹⁵⁷ General Electric provided the “needed stimulus” through the competition, and the company played an active role in promoting the goals of the FHA.¹⁵⁸ The competition organizers tried to make the program “more real” by creating fictional clients, “Mr. and Mrs. Bliss” and their children, who needed a house design at two junctures in their life.¹⁵⁹ The competition's categories included a small house for

¹⁵⁴ Thomas Hines, “Neutra's All-Plywood House: A Design for an Affordable Home by One of the International Style's Most Influential Architects,” *Fine Homebuilding* (1984):29.

¹⁵⁵ See, *Architectural Forum* (April 1935): 303.

¹⁵⁶ *The 1938 Book of Small Houses*, 60.

¹⁵⁷ “The House for Modern Living,” *Architectural Forum* (April 1935), 275.

¹⁵⁸ *Ibid.*

¹⁵⁹ *Ibid.*

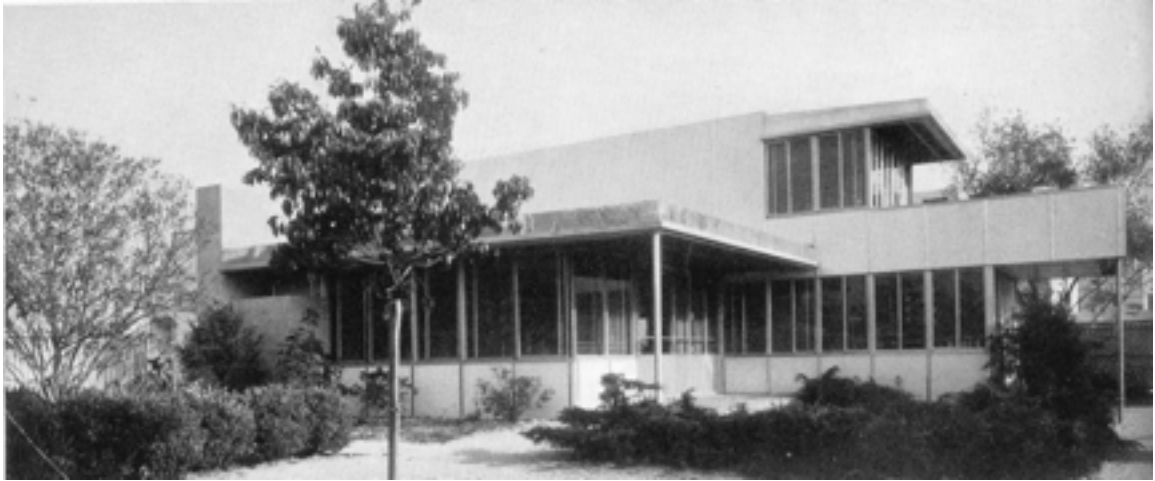
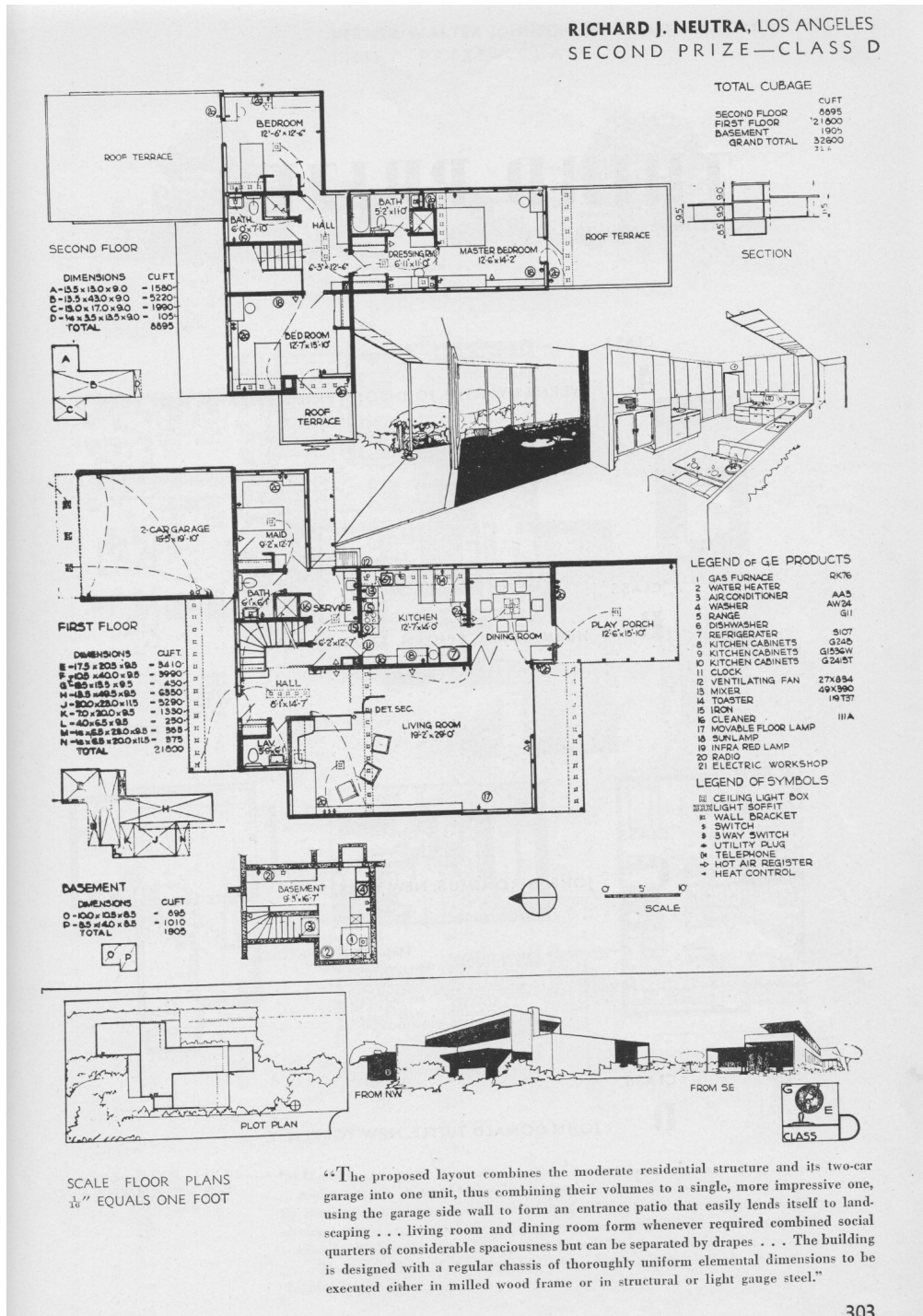


Figure 32. Richard Neutra, Plywood Demonstration House, Los Angeles, California, 1936. (From "Exhibition House Group, Los Angeles, California," *Architectural Forum* 65 (July): 41.)

RICHARD J. NEUTRA, LOS ANGELES
SECOND PRIZE—CLASS D



"The proposed layout combines the moderate residential structure and its two-car garage into one unit, thus combining their volumes to a single, more impressive one, using the garage side wall to form an entrance patio that easily lends itself to landscaping . . . living room and dining room form whenever required combined social quarters of considerable spaciousness but can be separated by drapes . . . The building is designed with a regular chassis of thoroughly uniform elemental dimensions to be executed either in milled wood frame or in structural or light gauge steel."

Figure 33. Richard Neutra, Design for the General Electric Company's Small House Competition of 1935, 1935. Page from *Architectural Forum*.

when the Bliss children are still infants, and a medium house class for when the children are older and the family has gained more economic freedom. Designs for Northern or Southern climates were also considered for each category. The medium house designed for the fictional Bliss family was to be built “with the aid of the FHA.”¹⁶⁰

Neutra’s design won second prize in the medium house, Southern climate class. The house has two-stories with an attached two-car garage, the latter being a stipulation provided in the competition’s description of the Bliss family’s lifestyle (Fig. 33). It takes an expansive horizontal form, including ample provisions for outdoor space. Two roof terraces and a play porch presumably would have allowed the Bliss family to enjoy the benefits of their house’s siting. In Neutra’s description of his design, however, he does not mention how it relates to the “personalities of the Bliss family” on which the competition was based.¹⁶¹ His description, instead, is a brief technical discussion on the structural divisions of rooms as well as potential framing systems for the house. Materials for the exterior surface of the home are not listed. Neutra’s decision to represent his Small House Competition design as the Plywood Demonstration House in Los Angeles suggests his continued interest in demonstrating the impact that materials could have on the user.

In their final analysis of the competition, *Architectural Forum* recognized that while a competition brought about much needed attention to the design of the small

¹⁶⁰ Ibid.

¹⁶¹ Ibid.

house, the successful designs chosen and displayed within the magazine would “not be entirely evident until some of the houses designed have been built.”¹⁶² They continued, “The only conclusive test of a principle is application.”¹⁶³ Neutra’s Plywood Demonstration House built upon this challenge. Set within the context of the California House and Garden Exposition, Neutra added another layer, both literally and rhetorically, to the General Electric House. Now fashioned out of pre-fabricated Plywood, materials became the means within the demonstration that could convey the benefits of the open plan.

In drawing up plans for the Beard House, Neutra reportedly mentioned that he experimented with a wood framing system.¹⁶⁴ According to Ford, Neutra perfected a wood framing system in the Plywood Demonstration House.¹⁶⁵ The system for the Plywood House was based on 40-inch plywood modules linked by aluminum-clad pine battens.¹⁶⁶ Each plywood module was painted white, which allowed the prefabricated units to be rendered more legible against the aluminum-colored battens. The surface of the building allowed the viewer to perceive the fact that the house was based on principles of prefabrication.

¹⁶² Ibid., 276.

¹⁶³ Ibid.

¹⁶⁴ Ford, 93.

¹⁶⁵ Ibid.

¹⁶⁶ Hines, “Neutra’s All-Plywood House,” 32.

The exhibition, which was to educate the public on building materials, further provided a didactic platform for Neutra to demonstrate the suitability of plywood as a sound building material. The material only became available for use as exterior siding in 1935 when a synthetic resin adhesive was invented that essentially waterproofed the wood.¹⁶⁷ During the almost year-long run of the exhibit, the *Los Angeles Times* hosted a weekly column in which questions about the materials and the construction of houses at the exhibition could be answered. In an article from 1936, a visitor asked “Can plywood be used for the exterior of a house?”¹⁶⁸ The editor answered that Neutra’s house was intended to be an example of how plywood could be a viable material for the exterior walls of a house. Visitors could view the building and decide to pursue the construction of a plywood surface for their own house. The emphasis on seeing and understanding the processes of building was further apparent in the exhibition’s practice of exposing areas of each model house to familiarize the visitor in building techniques.¹⁶⁹ An Administration Building also displayed additional materials not easily seen in the model houses.

The exhibition occupied the 5900 block of Wilshire Boulevard. The six houses were located around a central courtyard that included a badminton court and other communal spaces that were used for special programming throughout the exhibition in

¹⁶⁷ Ellwood S. Harrar “Veneers and Plywood: Their Manufacture and Use,” *Economic Botany*, Vol. 1, No. 3 (Jul. - Sep., 1947), 304.

¹⁶⁸ “Construction Primer,” *Los Angeles Times*, Feb. 23, 1936: E4.

¹⁶⁹ “Exhibition House Group, Los Angeles, California,” *Architectural Forum* 65 (July): 37.

order to attract the public (Fig. 34). Following the linear line of the courtyard's walkway, the viewer's gaze would have fallen on the designs at the end of the plan: Neutra's Plywood Demonstration House, the Tea Room used by the administrators for special events, and the French Cottage by architect Paul R. Williams (Fig. 35). David Gebhard and Harriette Von Breton argue that the range of styles presented in the exhibition "cast the whole production in the manner associated with a preview of a new '30s Hollywood film."¹⁷⁰ The temporary nature of the site draws further similarities to the stage sets of the Hollywood backlots.

The Plywood Demonstration House, as a smaller version of the General Electric design, is divided into two levels (Fig. 36). The lower floor consists of an attached garage on the western façade. A utility room, kitchen, dining room and bedroom run along the back portion of the house. The main entrance is located to the south of the garage. The southern portion of the house contains a large, open living room that connects to an outdoor patio through folding screens. The second floor of the house features a second bathroom, a bedroom and an outdoor deck that connects to this space. Compared to the Beard House, the home offers a stronger integration of indoor and outdoor space. Whereas in the design for the Beard House the exterior space is located on the roof forcing the occupant to exit the house in order to access the roof deck, the living room and bedroom of the Plywood House have easier access to the outdoor spaces. In comparison to the other buildings in the exposition, Neutra's Plywood House

¹⁷⁰ David Gebhard and Harriette Von Breton, *Los Angeles in the Thirties, 1931-1941* (Los Angeles: Hennessey & Ingalls, 1989), 96.

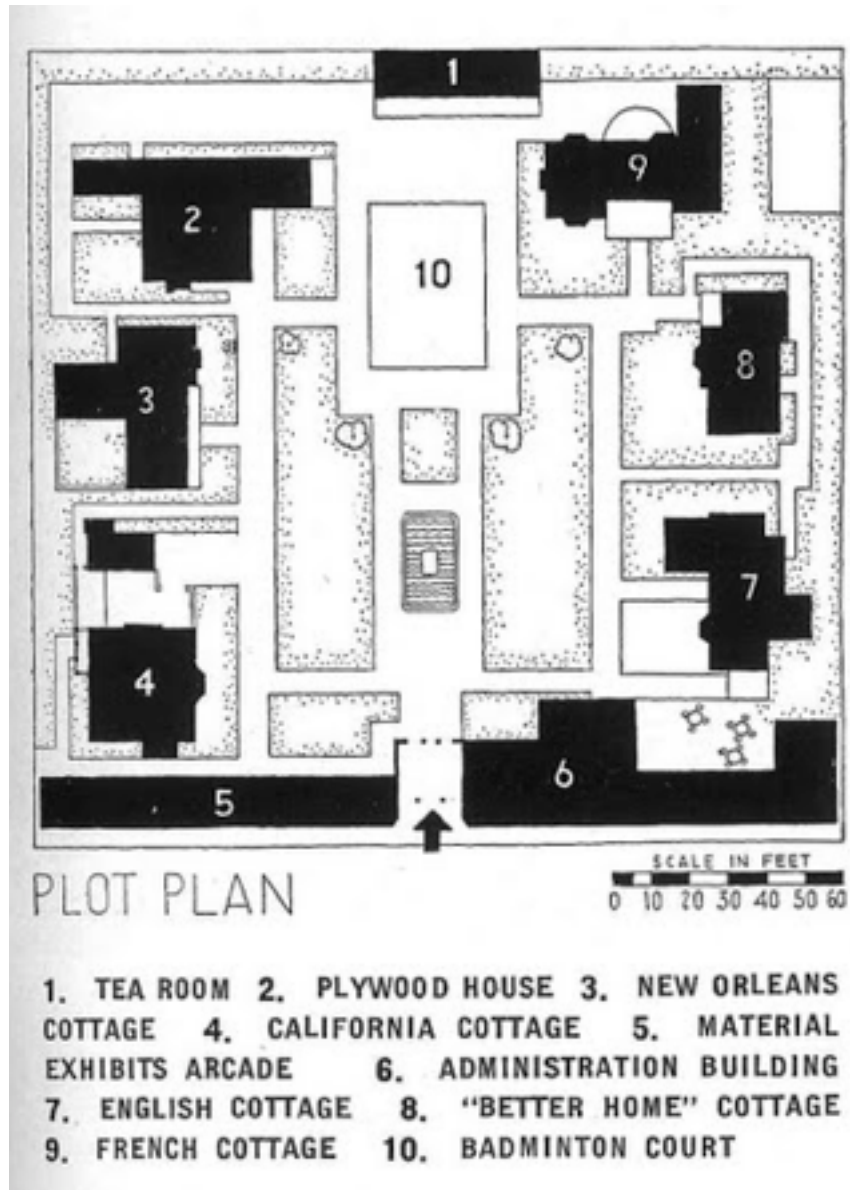


Figure 34. Site Plan for the California House and Garden Exposition at the Los Angeles Exhibition of Architectural Building Materials, 1936.



Figure 35. View of the California House and Garden Exposition at the Los Angeles Exhibition of Architectural Building Materials, Los Angeles, 1936.



Figure 36. Floor Plan, Plywood Demonstration House, Los Angeles, 1936.

integrated indoors and outdoors through the very structure of the house. The model for the French Cottage by architect Paul R. Williams, for example, also featured a roof deck, however, this space was only accessible through narrow, conventional doorways. The main level of Neutra's Plywood House allowed the eastern portion of the living room to be fully opened up to the yard.

Neutra's model house provided an interesting contrast to the other buildings in the exhibition, which were labeled according to regional styles. In particular, the California Cottage designed by architect Winchton L. Risley offered a regional model against which Neutra's house visually contrasted (Fig. 37). The editors of *Architectural Forum* claimed that Risley's house maintained the simple, low lines of the typical one-story house and the "gentle sloping roof" "common to this type of architecture."¹⁷¹ Compared to this traditional design, Neutra's Plywood House stood out as the only building designated by its material. The easy portability of Neutra's design, made possible by its construction in plywood modules, allowed the house to literally be moved to another location in Los Angeles after the exhibition had ended. Whereas the California Cottage offered a traditional idea of the California small home, Neutra's design offered an example of how materials in conjunction with good planning could provide a more modern solution to the housing problem.

¹⁷¹ "Exhibition House Group, Los Angeles, California," *Architectural Forum* 65 (July): 40.



Figure 37. Winchton L. Risley, California Cottage, Los Angeles, 1936.

In both the Beard House and the Plywood Demonstration House, Neutra attempted to convey a rationalized image of the modernized house and the consumer benefits that in turn could be gained from them. Neutra's engagement with materials reveals a complex interchange between his aspirations for modernist architecture as well as the pressing needs of a collective consumer.

Chapter III: The Alpha and Omega Case Study Houses (1945-46)

It becomes the obligation of all those who serve and profit through man's wish to live well, to take the mysteries and the black magic out of the hard facts that go into the building of "house."¹⁷²

- John Entenza, "Announcement: The Case Study House Program," 1945

In 1945, Neutra received a commission from *Arts and Architecture* editor John Entenza to take part in the now canonical Case Study House (CSH) Program. Whereas previous scholarship has focused on Neutra's one built design from this program, the Stuart Bailey House (CSH #20), his earlier designs for the unbuilt the Omega House (CSH #6) and the Alpha House (CSH #13), reveal a shift in his exhibition tactics (Fig. 38 and 39).¹⁷³ Alpha and Omega were introduced to the readers of *Arts and Architecture* as a pair of small houses designed on adjacent lots for two hypothetical families, the Alphas and the Omegas (Fig. 40 and 41).

The Case Study House Program ran from 1945 to 1966 and sought to steer the post-World War II housing boom toward modern architecture by offering American audiences affordable homes that were built with experimental materials and that could be

¹⁷² John Entenza, "Announcement: The Case Study House Program," *Arts and Architecture* (Jan. 1945), 39.

¹⁷³ Neutra designed a total of three official houses for the program. CSH #6 was the first to be published, followed by CSH #13, and lastly, CSH #20. CSH #20 was built on the original site Entenza secured for the program and was surrounded by several other houses built under the program. Hines argues that Neutra designed an additional house for the program, CSH #19, that was later cut off from the program because the clients altered the design. It was not published by *Arts and Architecture*. Amelia Jones and Elizabeth A.T. Smith argue that Neutra's sketches for the Bailey House reveal plans for CSH #19, which was meant to be constructed on a nearby lot. See Hines, *Richard Neutra and the Search for Modern Architecture*, 210 and Amelia Jones and Elizabeth A.T. Smith, "The Thirty-Six Case Study Projects," *Blueprints for Modern Living: History and Legacy of the Case Study Houses*, ed. Elizabeth A.T., Smith (Cambridge: MIT Press, 1989), 48-9.

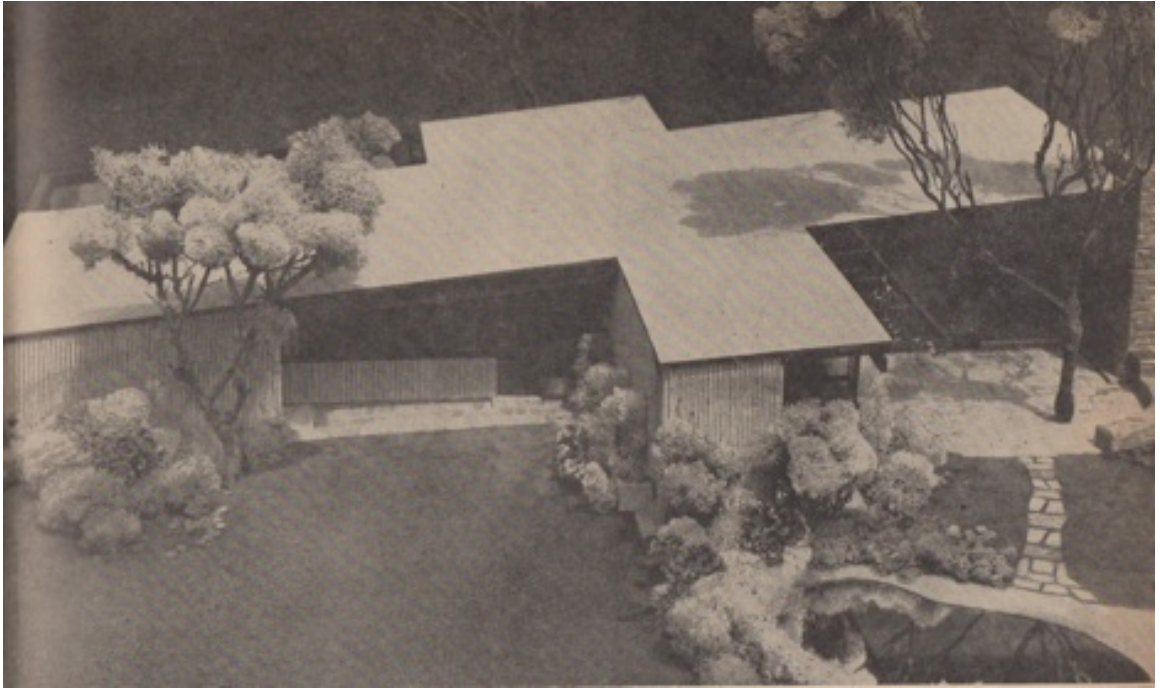


Figure 38. Richard Neutra, Case Study House #6, Omega House, 1945. Photograph by Julius Shulman.

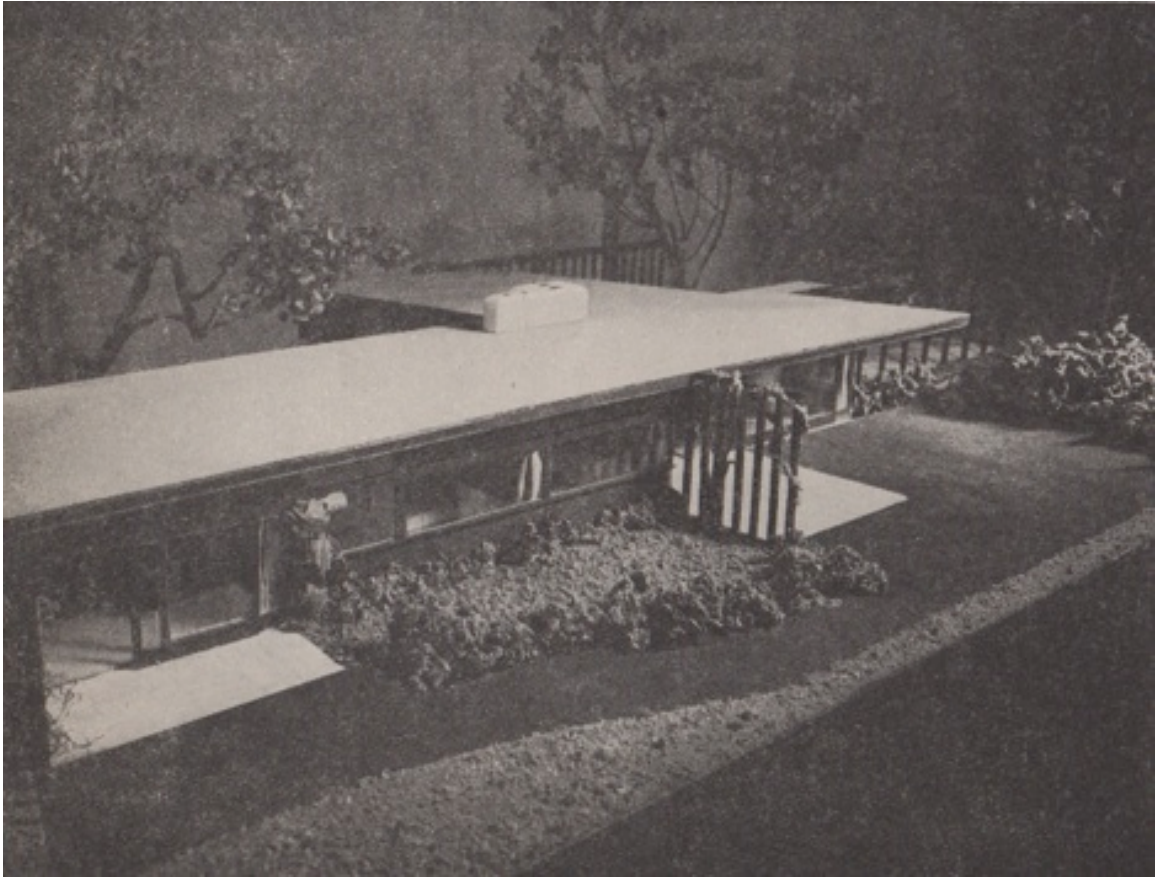


Figure 39. Richard Neutra, Westward View of the Model for Case Study House #13, Alpha House, 1946. Photograph by Julius Shulman.

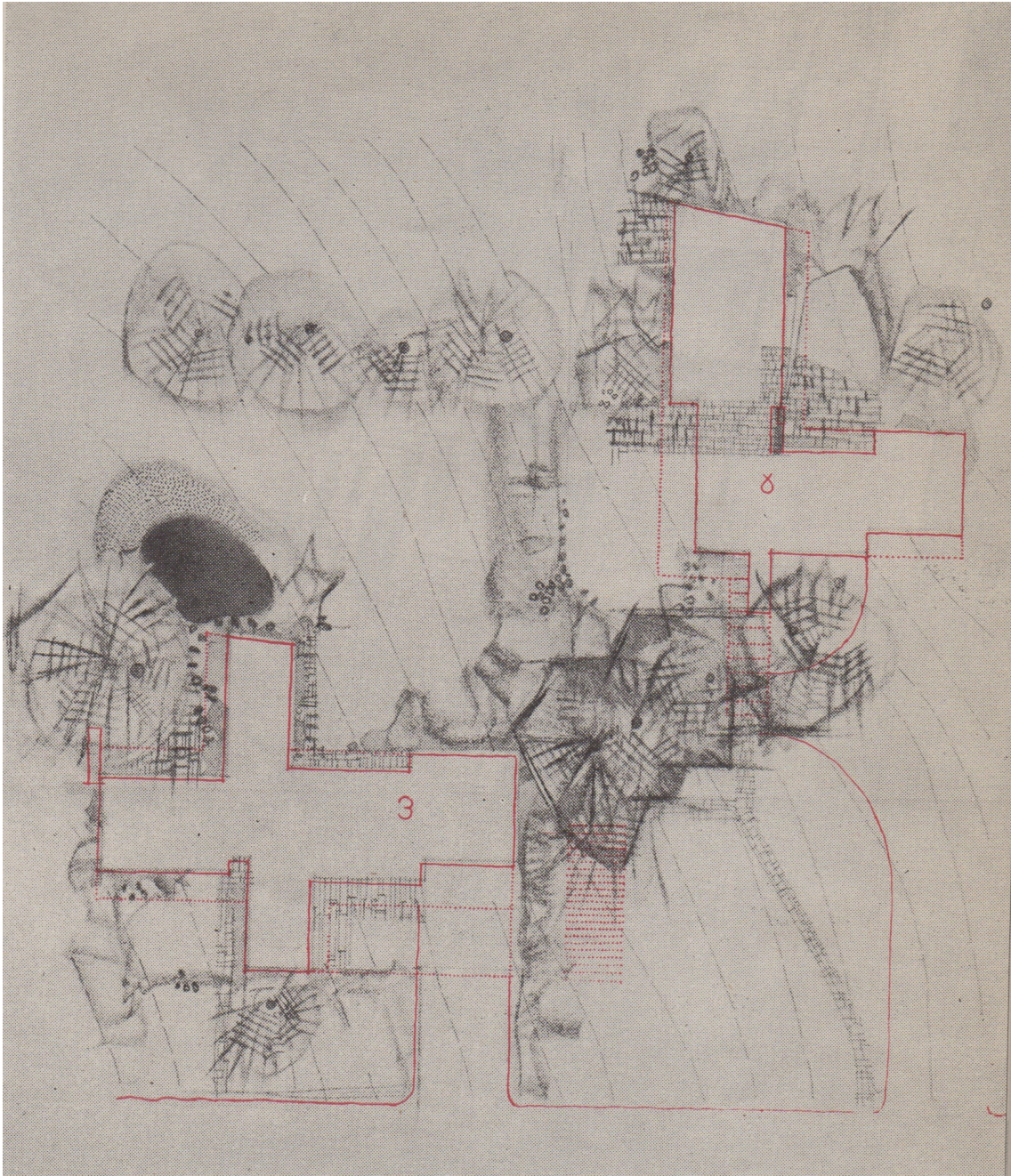


Figure 40. Richard Neutra, Site Plan for Case Study House #6, Omega, and #13, Alpha, 1946.

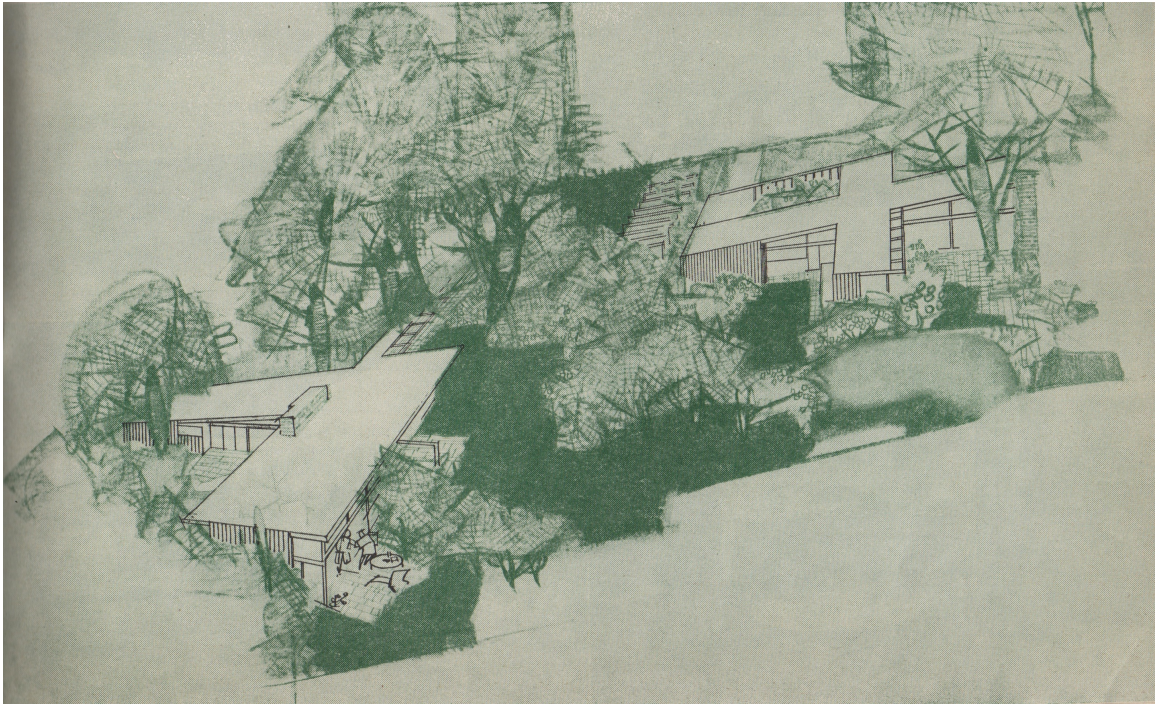


Figure 41. Richard Neutra, Perspective of Case Study House #6, Omega, and #13, Alpha, 1946.

replicated.¹⁷⁴ During the first year of this program, individual houses were depicted monthly in the pages of the magazine.¹⁷⁵ Architects and critics commented on house designs in brief textual responses, augmented by plans and model photographs. After their initial publication in the magazine, the houses were meant to be constructed.

In the articles published on the Alpha and Omega Houses, Neutra constructed an elaborate textual and visual narrative for the houses' design process. At the center of this narrative was the hypothetical client. Compared to Neutra's previous model houses, these designs comment on Neutra's skill in anticipating "real life" situations and needs of the hypothetical clients. Published nearly ten years before *Survival Through Design*, these articles, which have not been critically examined, offer useful indexes for tracing Neutra's design process as it related to the user.

The magazine format itself also reveals a departure in Neutra's planning of the model house and approach to design. The model houses were only to be constructed after they were presented in the magazine. While it can be argued that vision is inherent to a magazine's structure of communication, Neutra's presentation of the Alpha and Omega houses foreground different means of representation as a tool of demonstration. Through

¹⁷⁴ The first critical examination of the Case Study House Program was Esther McCoy's book *Modern California Houses; Case Study Houses, 1945, 1962* published in 1962. A second edition of this book was published in 1977 under the title *Case Study Houses, 1945-1962*. For more information on *Arts and Architecture* and the Case Study House Program, see Ethel Buisson and Thomas Billard, *The Presence of the Case Study Houses* (Birkhäuser: Basel, 2004); McCoy, *Modern California Houses* (New York: Reinhold, 1962); McCoy, *Case Study Houses, 1945-1962* (Los Angeles: Hennessy and Ingalls, 1977); McCoy, "Arts and Architecture Case Study Houses," *Perspecta*, vol. 15, (1975): 54-73; Elizabeth A.T. Smith, ed. *Blueprints for Modern Living: History and Legacy of the Case Study Houses* (Cambridge: MIT Press, 1989); Smith, Julius Shulman, and Peter Goessel, et al., *Case Study Houses* (Köln: Taschen, 2002).

¹⁷⁵ Stemming from the initial 8 designs announced, the program expanded to include a total of 36 designs over the following years.

literary narrative, plans, perspective drawings, collages and models, Neutra created a printed display that demonstrated the concepts of the design through a process of perceptual sequencing. Together, the articles' text and notational elements of the design process act as a set of communicative devices to the reader that simulate the experience of architectural space.

The Alphas and the Omegas

When the Case Study House Program was officially announced in 1945, *Arts and Architecture* planned to construct each project mainly with materials donated by companies who advertised in the magazine and then briefly open the houses for public tours.¹⁷⁶ Many of the original Case Study Houses were model houses designed without specific clients in mind.¹⁷⁷ Only when Entenza and the magazine's staff failed to secure funds and donated materials did they seek out actual clients to fund the construction of the houses.¹⁷⁸ The original, commissioned designs were guided by the experimental

¹⁷⁶ Hines, *Richard Neutra and the Search for Modern Architecture*, 119.

¹⁷⁷ While the Eames House (CSH #8), first announced in the December 1945 issue of *Arts and Architecture*, maintained many personal specifications as it was designed by Ray and Charles Eames themselves, it was a prototype for a professional married couple. Throughout their article on CSH #8 and #9, the Eames avoid describing the house with possessive pronouns. Case Study House #9, designed for Entenza by Charles Eames and Eero Saarinen, also was meant to be a prototype despite it being designed for a specific client. It was a counterpart to Case Study House #8 that was built on the same lot. The house itself was built of many prefabricated parts and modeled after a design that Saarinen contributed to the magazine for a postwar housing competition in 1943. See Jones and Smith, "The Thirty-Six Case Study Projects," 51-4.

¹⁷⁸ Entenza, "Program Note: Case Study House Program," *Arts and Architecture* (July 1946): 44. Two years into the program, only one building—J.R. Davidson's design for Case Study House No. 11—had come to actual fruition.

program of the magazine, which sought to “create ‘good’ living conditions” for various hypothetical American families within the “Southern California area.”¹⁷⁹

The program’s theoretical underpinning posed a preliminary obstacle: How could the unbuilt prototype be presented to the average reader of *Arts and Architecture* in a manner that they could understand? Since the designs were meant to precede the actual built houses, the readers of *Arts and Architecture* were typically forced to use an element of imagination. Scholars have analyzed the disciplinary problems surrounding the dissemination of architecture through mass media outlets, such as illustrated magazines. According to critic Pierre-Alain Croset, architecture itself privileges the “temporal experience, which by definition *is not reproducible*.”¹⁸⁰ He argues that the critic should use narrative techniques in order to “conceive of a sort of ‘visual tale’ capable of ordering a succession of images that refers to *one* possible actual experience.”¹⁸¹ Whereas Neutra’s case studies were unbuilt when the articles were published, his narration of the article prepared the reader for a future experience of the model houses.

Neutra used narration as a didactic instrument to firmly root the reader in his design process. He achieved this element of reality by first presenting the Alpha and Omega Houses as objects that resulted from a traditional model of architectural patronage rather than the visionary proposal of the Case Study House Program. In the October

¹⁷⁹ Entenza, “Announcement,” 37.

¹⁸⁰ Pierre-Alain Croset, “The Narration of Architecture,” *Architecture reproduction*, ed. Beatriz Colomina (New York: Princeton Architectural Press, 1988), 201.

¹⁸¹ *Ibid.*, 205.

1945 issue, Neutra introduced the fictional families, the Alphas and Omegas, to the readers of *Arts and Architecture*. The Omegas commissioned Neutra to design CSH #6, while the Alphas stood in as the clients of CSH #13. The anonymous, alphabetic names of the “Alphas” and “Omegas” suggested that readers of the magazine could have easily inserted themselves into the storyline.

Through the rhetorical artifice of narration, Neutra nonetheless created a setting in which he could dictate the interpretation of the designs. On the Omega House, he stated, “I myself would like to exercise some plastic imagination so as to visualize what detail problems the executing crews will have to encounter. There should be nothing abstract or doctrinary in such a design.”¹⁸² Through the characters of the Alphas and Omegas, Neutra provided a point of entry for the reader to comprehend his design process and the objectives behind his case studies, while also providing a position from which the reader could imagine the real space of the architecture.

In his text on the Omegas, he provided a lengthy description of their character and lifestyle. The Omegas were a relatively young couple in their “first matrimonial decade” with three children-- daughters aged ten and nine and a boy aged five.¹⁸³ In the Case Study, Neutra provides himself with clients who already have an appreciation for architecture and an ability to read formal elements and floor plans. Mr. and Mrs. Omega are characterized as “long standing readers of A&A.”¹⁸⁴ While Mr. Omega’s profession

¹⁸² Richard J. Neutra, “Case Study House No. 6,” *Arts and Architecture* (Oct. 1945): 49.

¹⁸³ *Ibid.*, 33.

¹⁸⁴ *Ibid.*

is not stated, he is listed as a man with a thorough understanding of architecture. Mrs. Omega is “self-described” as “just a housewife with artistic and musical interests.”¹⁸⁵

While briefly introduced as “having made their first visit together” to Neutra with the Omegas, the Alphas were later described in an article on Case Study House No. 13 published in the March 1946 issue of *Arts and Architecture*. As the second hypothetical family to employ Neutra, the Alphas are “as a family, a little older than the Omegas.”¹⁸⁶ They have three children-- a boy aged thirteen and two girls, aged ten and eight. While Mr. Alpha’s occupation is not listed, he is described as a “chronic horticulturist.”¹⁸⁷ Mrs. Alpha is described as a housewife who pays particular attention to the maintenance of her home, worrying that outdoor terraces may cause “root beer to be spilled and greasy sandwiches to drip.”¹⁸⁸ Throughout the two articles, Neutra includes several similar anecdotes relating to daily family life, making it easier for the average reader to relate to his design process.

The articles also serve as a coherent analysis of how Neutra saw himself designing for the needs of the consumer. As the Alphas and Omegas were figures of his own creation, they represent paragons of the Neutra client. They are a set of ideal viewers on which the readers of *Arts and Architecture* could model their process of viewing. His description of the Omegas recalls his earlier strategies of display in which

¹⁸⁵ Ibid.

¹⁸⁶ Ibid.

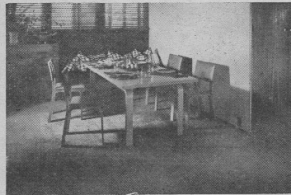
¹⁸⁷ Ibid.

¹⁸⁸ Richard J. Neutra, “Case Study House No. 13,” *Arts and Architecture* (March 1946): 46.

he attempted to outline a model process for observing architecture. As individuals familiar with *Arts and Architecture* magazine, Neutra's Omegas maintain an appreciation and desire to learn about architecture. In the narrative, the Omegas bring to their meeting with Neutra a "scrapbook" with "an amazing mass of clippings and illustrations" of Neutra's previous work, including an image of the Beard House (Fig. 42).¹⁸⁹ In doing so, they offer prime examples of how Neutra saw his program of demonstration. Having been displayed in both public spaces of exhibition and print articles, his prior designs produced standardized typologies for the public to study and familiarize themselves with and then replicate in some way. According to Beatriz Colomina, "Narration implies an object, a truth existing previous to its discursive formation, an object that the narration will represent in the most faithful manner."¹⁹⁰ Whereas the Omega House was still unbuilt, the design, as described in Neutra's narrative, is a synthesis of previous built works which further places it in reality.

¹⁸⁹ Ibid., 34.

¹⁹⁰ Beatriz Colomina, "Introduction: on Architecture, Production and Reproduction," *Architectureproduction*, ed. Beatriz Colomina (New York: Princeton Architectural Press, 1988), 22.



From the scrapbook of Mr. Omega:

One-sided gable front of living room opens broadly on a flagstone-paved patio. (Van Cleef house)
Two story bunk-equipped children's room extends to playroom and play court. (Amity Village)
Dual purpose table—up for dining, down for tea. (Barsha house)

House built of H. H. Robertson Steel Elements with radiating floor in 1935. Owner writes: "Our system of hollow floors, whereby heat radiates from a composition slab, has proved to be very satisfactory in practice. It is most pleasant to be able to walk barefoot across warm floors on cold mornings and to enjoy warm feet and legs at all times." signed: William Beard, owner

Photographs by Julius Shulman.

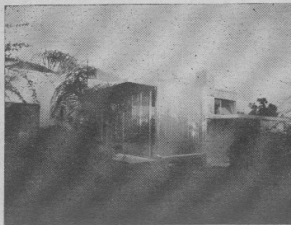


Figure 42. "From the Scrapbook of Mr. Omega," page spread from *Arts and Architecture* magazine, 1945.

Having created ideal clients that are familiar with architecture, Neutra emphasized the importance of drawings and sketches in his narrative. The Omegas explicitly ask Neutra for sketches of their house. They state:

I know they tell stories of how you design things without a pencil, thinking them out while lying on a couch; how some of your happiest clients, I hear never saw a sketch before they saw their house, and that you believe in houses, not in artistic drawings, and all that sort of thing. But we are just people who are anxious to see *our own* things ahead of time.¹⁹¹

Neutra, beginning to describe his design approach in psychoanalytic terms, however, subsumes to the pressing concern of the consumer. The clients are anxious to view the drawings of their house. Even in the early stages of the design process, they recognize the importance of a clear understanding of the structural layout. Croset argues that, “Even when architecture is published at the stage of its design, what should be communicated is precisely the possibility that architect and reader have something to enjoy together, namely the common desire to experience a significant building.”¹⁹² The drawings, for the Alphas and Omegas, then become important emblems that convey they are also actively participating in the design process. Neutra’s narration ultimately hints at the possibility that the readers of the magazine could build the houses themselves, if they acquire a similar approach to viewing architecture as the Alphas and Omegas.

¹⁹¹ Neutra, “Case Study House No. 6,” 34 and 49.

¹⁹² Croset, 206.

Case Study House #6 “Omega” and Case Study House #13 “Alpha”

Within the context of the magazine article, the reading of Neutra’s text must occur before the images are examined. Following his lengthy narrative on the Omegas, he states:

I showed the Omegas their plans, silently, and without much talk. Here was a layout sufficiently labeled for them to roughly find their way through and yet get their bearings... sketches of the outside from all factual angles, to see the flat roof sloping and draining parallel to the natural grade—as well as the four different outside spaces, appendages to the interior, courts numbered one, two, three and four.¹⁹³

By using this narrative device, Neutra encourages the reader of *Arts and Architecture* to assume the role of the Omegas. After having read the article, the reader then becomes an active, educated viewer capable of identifying the elements of the plan produced in the article (Fig. 43).

The reader is presented with numerous drawings from various interior and exterior vantage points of the design as well as photographs of the model from various angles that demonstrate social advantages. The floor plan of the Omega House was arranged in a cross shape. The cross plan allowed Neutra to create four exterior courtyards as extensions of the interior spaces of the dwelling. The concept of the four court or “Four Courter” house was originally designed by Neutra and his son Dion and reproduced in *Pencil Points* magazine in 1944 (Fig. 44). In the “Four Courter” house, each courtyard provided a specific function for the inhabitants that was closely linked to

¹⁹³ Neutra, “Case Study House No. 6,” 50.

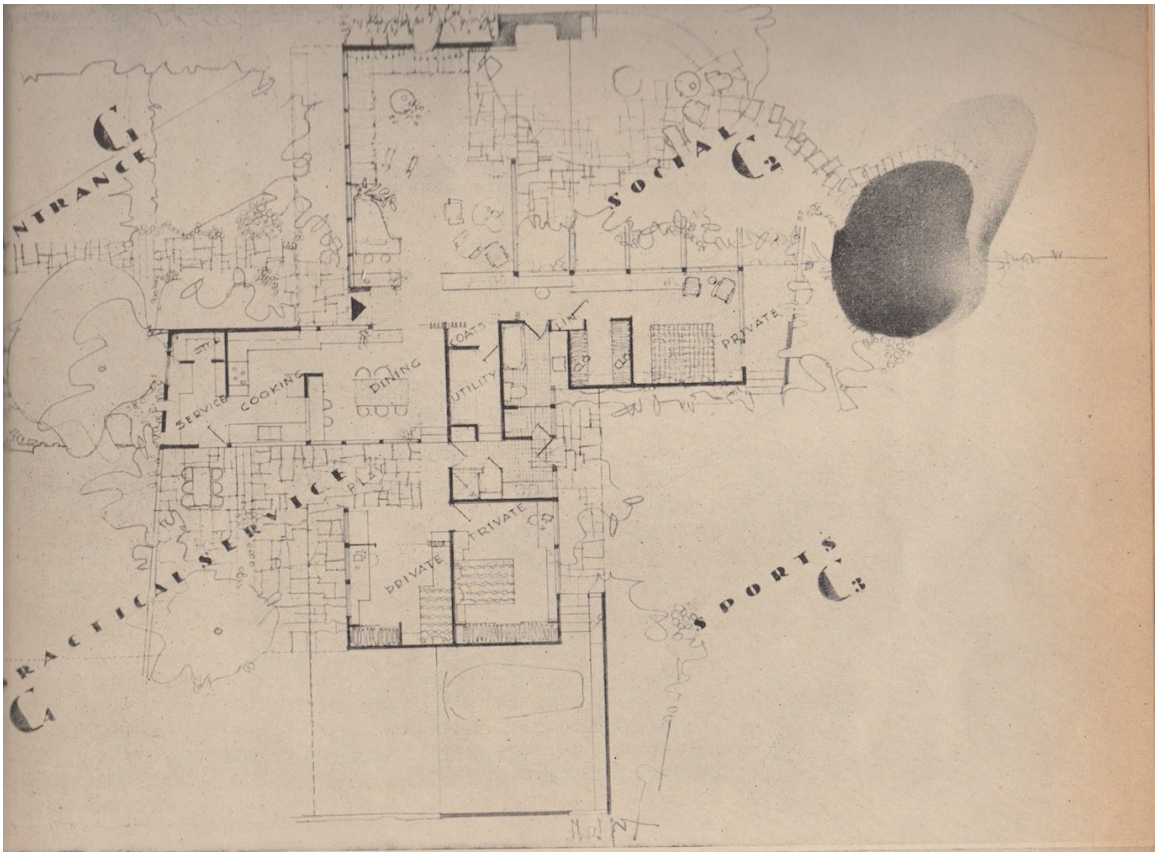


Figure 43. Richard Neutra, Floor Plan for the Omega House, 1946.

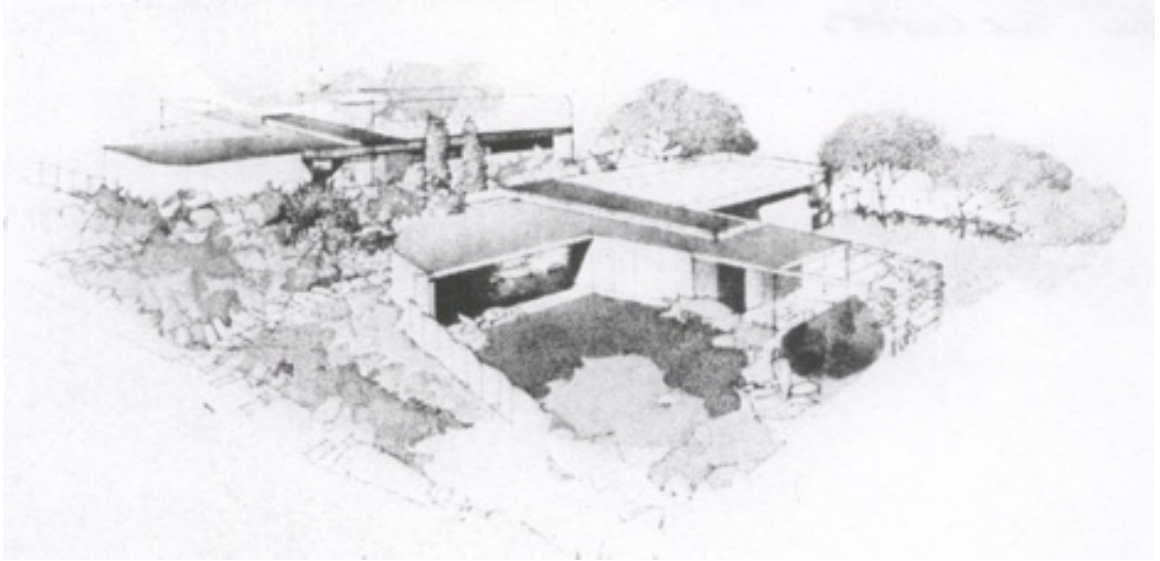


Figure 44. Richard Neutra and Dion Neutra, The Four Courter House of Tomorrow, 1944.

the social functions of the rooms that framed them. The initial article published on the “Four Courter,” stated that “the architect figured his plan areas on the basis of ‘square-foot hours’ of living, eliminating whatever space added nothing but a cleaning chore.”¹⁹⁴ The four courts were defined as follows: “one is for visitors and main entrance; the second is a service yard; the third, a social room for adult relaxation, eating, or entertaining without being disturbed by children; and fourth a place where the children can yell and jump about without being disturbed by adults.”¹⁹⁵ Instead of referencing psychological and physiological needs, the Four Couter, similar to the Beard House is presented as a design that is streamlined both in design and layout for efficiency. It is a plan designed for the average consumer, rather than the individual user.

Mrs. Omega specifically requests the “articulated plan” from the “four-court idea” of which she “saw some illustrations a few years ago.”¹⁹⁶ Rather than deriving from personal needs, moreover, the plan of the house develops out of the consumer’s familiarity with images of Neutra’s previous designs. The “Four-Courter” itself is sequentially numbered in a way for the viewer to easily comprehend the spatial experience of the design. As seen in the floor plan for the Omega House, courtyard one or C1 is designated as the “entrance court,” which Neutra states “preserves and respects the privacy of the others” (Fig. 43).¹⁹⁷ C2, the “social court,” is adjacent to the living

¹⁹⁴ “Richard Neutra Designs a ‘Four Courter’ House for Tomorrow. Dion Neutra, Collaborator,” *Pencil Points* (May 1944): 58.

¹⁹⁵ *Ibid.*

¹⁹⁶ Neutra, “Case Study House No. 6,” 33.

¹⁹⁷ *Ibid.*, 37.

room. It was meant to be an “extension of the living quarters” that could also serve “for quiet informal meals and conversation” or accommodate as space for sunbathers to lounge near the planned spray pool or water feature.¹⁹⁸ C3, the “sports court,” was meant for “active pastimes” and connected directly to the bath facility of the house.¹⁹⁹ Lastly, C4, the “practical service court,” can be accessed off the service rooms of the house. Enclosed by the kitchen on one side and the garage on the other, the service court was a large outdoor space intended as a play area for the children of the household. Just as the textual narrative provided a means for the reader to engage with the concepts behind the Case Studies, the numbered system of the courtyards produced an ideal route for the reader to experience the space of the houses.

Based on the principles of the Four Courter, the floor plans of the Omega and the Alpha Houses provided close relationships between the exterior courtyards and the interior rooms. In the numerous sketches produced for the magazine article, Neutra provided framed views of each courtyard space as seen from the vantage points of the interior rooms. Just as the reader of the magazine contemplates the pages of the article, circulation through the Omega House triggers a process of perception. As seen in a sketch of the interior, the kitchen provided a clear view of the service court (Fig. 45). The mother, designated by Neutra as the “house-keeper,” is able to closely survey the children playing in the courtyard. Leaning over the counter space, her head is oriented

¹⁹⁸ Ibid.

¹⁹⁹ Ibid.

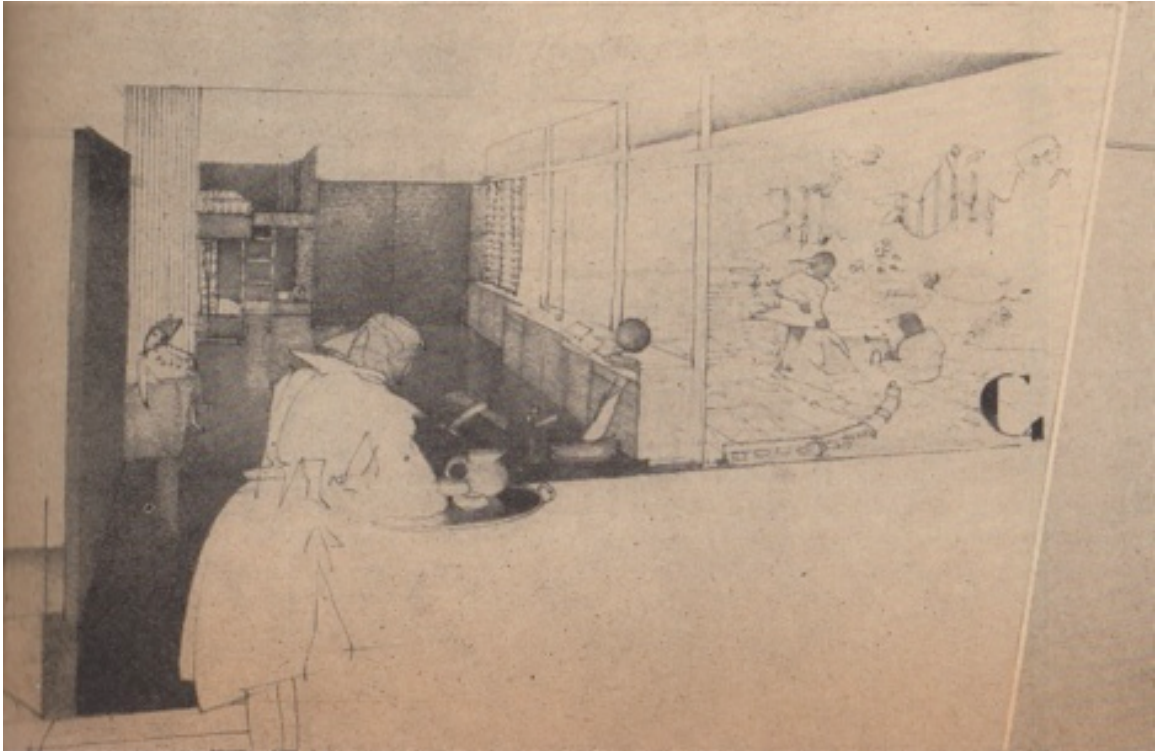


Figure 45. Richard Neutra, View from the Kitchen onto the Service Court (C4), Case Study House #6, Omega House, 1945.

toward the two figures in the exterior space. The doll located in the left of the drawing also tilts its head toward the children in the courtyard, underscoring that the interior spaces provide clear paths for viewing the activities taking place in the courtyard. This emphasis on the vantage points produced by the interior spaces is also seen in Neutra's sketch for C3, the sports court (Fig. 46). In this image, Mrs. Omega, peers around the wall of the house to view Mr. Omega playing with their children. The plan itself emphasizes the importance of the view.

Whereas these sketches reveal that the interior spaces provide framed views of the exterior courtyards, the use of sliding glass doors and windows throughout the design ultimately also suggest that the exterior spaces of the home provide their own views of the social activities taking place within the home. In a sketch of the living room, the family is arranged loosely around a table (Fig. 47). The sliding glass doors to the right of this image provide a seamless view of the patio space of C2, the social court. Here, the outdoor seating space around the barbecue pit forms a continuous line with the indoor seating space. Moreover, the sliding glass doors coupled with the piano in the room suggest that the interior living space of the house can provide an extended space for the social activities taking place in the courtyard, or vice versa. The Alphas and Omegas can move freely between the indoor and outdoor rooms of their house, thus eliminating the idea that one space within the structure is a more privileged space for viewing and observation.

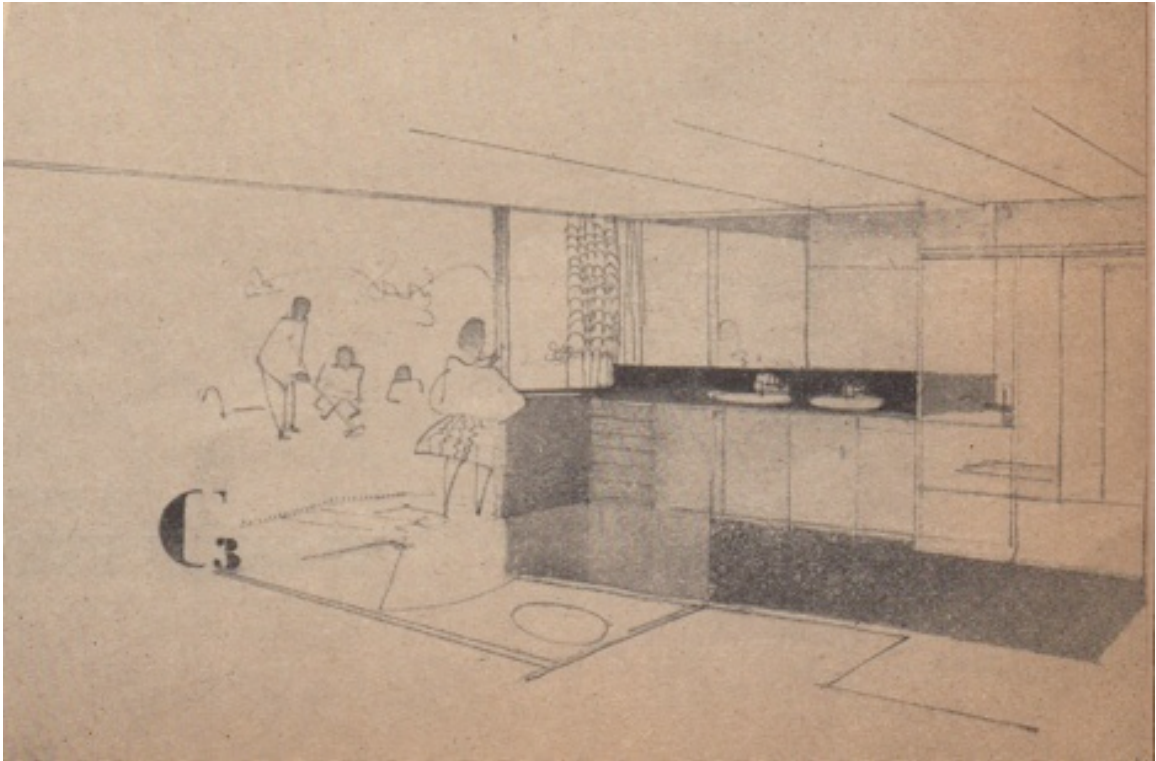


Figure 46. Richard Neutra, View from the Living Room onto the Sports Court (C3), Case Study House #6, Omega House, 1945.

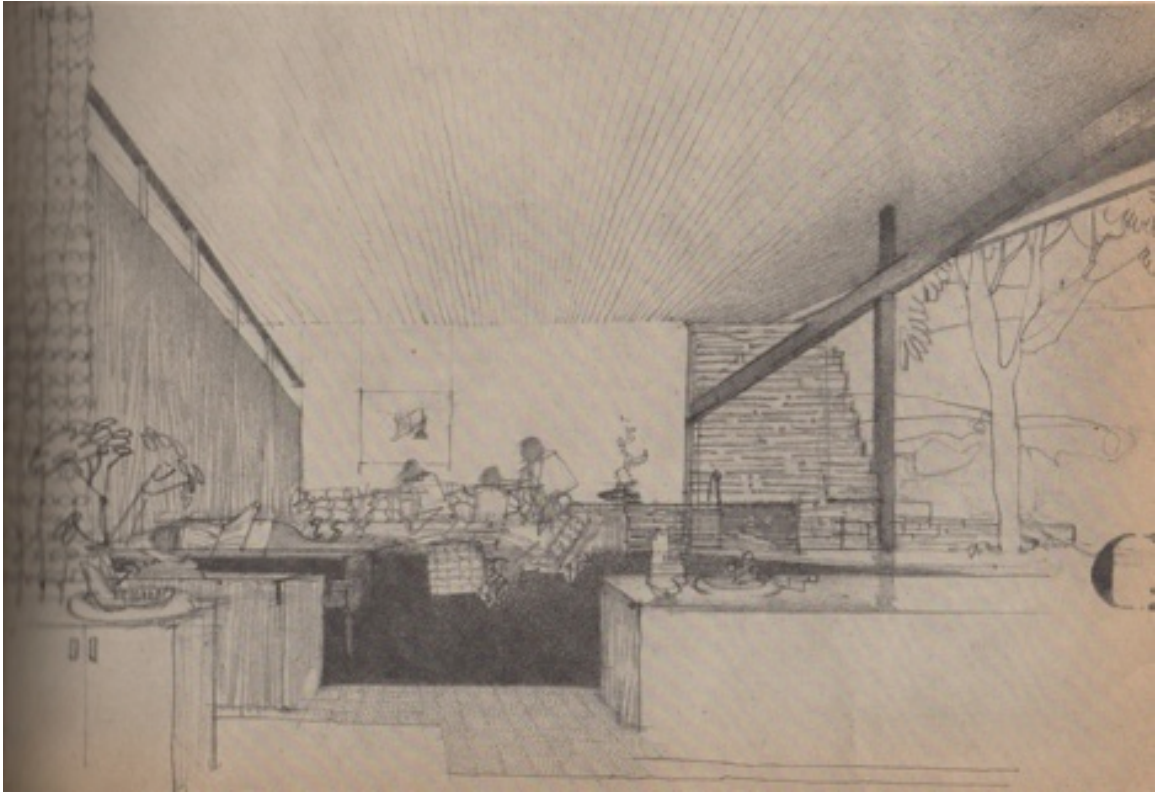


Figure 47. Richard Neutra, View of the Living Room and the Social Court (C2), Case Study House #6, Omega House, 1945.

The Modernist House as a Type

Whereas the article on the Omega House demonstrated the layout of the individual house, Neutra's article for the Alpha House demonstrated how the modernist house could be planned to harmonize with other similar designs in a neighborhood environment. While the Omegas are described as being readers of *Arts and Architecture*, they begin their discussion with Neutra by asking him to "pioneer with moderation" in his design.²⁰⁰ By doing so, Neutra frames the rest of the fictional dialogue around a critical debate about the formal characteristics of modernist houses. This debate offers insight into how Neutra's design approach to both form and materials was conveyed at the postwar juncture.

At the center of Neutra's debate is the overall shape of the house. Mr. Omega asks, "Why has not contemporary architecture started on a path of some doctrinary tenets too? Take the flat roof idea. Are you giving us a flat roof?"²⁰¹ With some hesitation over the possibility that their roof could be flat, the Omegas are instructed by Neutra on the characteristics that encompass such a design. Neutra argues that the "flat roof" is anything that does not include a "plastic, three dimensional protrusion."²⁰² The flat roof ultimately is defined as something that adheres to a single plane, including roofs tilted on steeper angles.

²⁰⁰ Neutra, "Case Study House No. 6," 33.

²⁰¹ Neutra, "Case Study House No. 6," 49.

²⁰² *Ibid.*, 50.

By choosing to discuss the “flatness” of the roof, Neutra, reveals an argument in which he takes the most identifiable formal characteristic of modern architecture to task. He states that contemporaneous subdivisions view the flat roof as the ultimate “taboo.”²⁰³ In doing so, he reveals prevailing views that modernist houses, because of their flat roofs, could not be incorporated into existing subdivisions based on their formal appearance. In his response to this attitude, he then goes on to defend his use of the flat roof as not an arbitrary decision based on an effort to identify his houses with a prevailing style, but rather as a regional and technical decision. He compares his use of the flat roof to regional, historical styles of the West, drawing comparisons to the buildings of early Los Angelenos as well as those of the Shoshone Indians. He further argues that his use of the flat roof is based on the fact that it is easier to construct. He adds a slight pitch to his roofs because it produces a roof that requires less technical maintenance, allowing for water to easily run off the angled plane.

Neutra effectively strips away any monumentalism the flat roof conveyed in order to harmonize it into the average suburban landscape. It becomes a form understood solely in terms of its functional, consumer purpose. Neutra used the Case Study to move beyond these traditionally formal terms of modernism in order to provide an educational example of how his flat roof designs could be widely incorporated into neighborhood environments.

²⁰³ Ibid., 49.

In the text, moreover, Neutra argues that the roof design affects the spatial layout of the house. By choosing a low-maintenance flat roof, the Omegas are then able to have a house that moves beyond the simple, “box-shaped affair.”²⁰⁴ Mrs. Omega states, “I *want* what you have been calling an ‘articulated house,’ jutting its wings into outside garden and yard spaces—which would also well suit those wings of interior rooms I would like to have.”²⁰⁵ Mrs. Omega eventually gets her “articulated house” in the Four Courter plan. By focusing on defining the visual appearance of the houses, Neutra provided the observer, just as he did with his design from the 1930s, with a vocabulary to talk about architecture. The modernist flat roof and the X-shaped plan can now be described in terms of function by the viewer. The ideal viewer of Neutra’s houses is equipped with a vocabulary to identify what they see.

By presenting both families in the initial article on the Omega House, Neutra also presented a simple answer to the debate over whether modern houses could assimilate visually in a neighborhood. Since the Alphas and Omegas both “approached” Neutra together, either family would not have to worry whether or not the designs affected the tastes of the “neighbors.”²⁰⁶

²⁰⁴ Ibid., 50

²⁰⁵ Ibid.

²⁰⁶ Ibid., 33.

The Alpha and Omega Neighborhood

The concept of the neighborhood within the overall Case Study House program is of critical interest even if it was a downplayed aspect of the program. Entenza originally acquired a five-acre site in Pacific Palisades for the construction of the case studies. After the program expanded, the magazine acquired several lots around Los Angeles, however, effectively doing away with the idea that the models would constitute a neighborhood.²⁰⁷ While fiscal limitations prevented the actual construction of all of the houses, the original plan for the close siting of the prototypical houses did not go unnoticed. Architectural critic Esther McCoy insightfully compared *Arts and Architecture's* original intention to both the Wiessenhof settlement as well as the Vienna housing exhibition.²⁰⁸

In the Omega Case Study article, Neutra was one of the first participating architects to point out that Entenza was “an over-all-man of vision, who, conceiving and directing a modern subdivision, has invited a number of conscientious, capable architects to collaborate on the single plot.”²⁰⁹ Nonetheless, Entenza did little to link the designs in terms of community planning. Architectural historian Dolores Hayden argues that, “In its early years, the Case Study House program was at a disadvantage because Entenza did not attempt to define a model neighborhood in which the model houses

²⁰⁷ McCoy, “Arts and Architecture Case Study Houses,” 54.

²⁰⁸ Ibid.

²⁰⁹ Neutra, “Case Study House No. 6,” 33.

would find their social and physical context.”²¹⁰ As individual experiments in the design of the small house, they varied drastically in program and function.

In considering the original program, Neutra’s designs hold the exception. Conceived as a pair, the two houses aid the viewer in understanding the importance of good neighborhood planning.²¹¹ Recalling the FHA’s aims, Neutra’s Case Studies are presented in a manner that highlights they are “well planned, well built and well suited to the neighborhood.”²¹² The first article on the Omega House emphasized the thoughtful plan of the house and its construction, while the second article on the Alpha House conveyed the importance of design and planning in creating a sense of neighborhood identity (Fig. 40 and 41). The latter of which was of pressing importance considering the rise of suburbanization and single-family tract housing in wartime and postwar Southern California.²¹³ Given these concerns, Neutra’s Alpha and Omega Houses, in their generalized approach to the user, offer alternative, modernist consumer options, even if they are not as technologically spectacular as his earlier model houses.

Neutra uses surface as a tool to demonstrate the cohesiveness of the designs. He stated on the Alpha House, “In appearance this house has been designed with constant

²¹⁰ Dolores Hayden, “Model Houses for the Millions: Architects’ Dreams, Builders’ Boasts, Residents’ Dilemmas,” in *Blueprints for Modern Living: History and Legacy of the Case Study Houses*, ed. Elizabeth A.T. Smith (Cambridge: MIT Press, 1989), 159.

²¹¹ Jones and Smith, “The Thirty-Six Case Study Projects,” 49.

²¹² Editors of *Architectural Forum.*, xxiii.

²¹³ For a discussion of suburbanization in Los Angeles, see Greg Hise, *Magnetic Los Angeles: Planning the Twentieth-Century Metropolis* (Baltimore: John Hopkins University Press, 1997). Neutra wrote on the threat of poor planning in his article, “Homes and Housing,” in *Los Angeles: Preface to a Master Plan*, ed. George W. Robbins and L. Deming Tilton (Los Angeles: Pacific Southwest Academy, 1941), 189-202.

thought for its relation with its neighbor. The same facing and finishing materials, as well as the same fixtures are used.”²¹⁴ The materials stipulated for the construction of the Omega house were corrugated Cemesto (a combination of asbestos and cement) panels over a wood frame.²¹⁵ While Neutra did not specify the materials for the framing of the Alpha House, the textures of the model for the house suggest that wood was meant to be used for an exterior surface (Fig. 39). Natural materials such as flagstone were also used heavily in the design of the individual houses as well as in the plan for the designated lot. While the houses differ greatly when compared to the experimental materials of the “all-steel” Beard House and the Plywood Demonstration House, Neutra nonetheless draws the viewer’s attention to the surface of his designs as a means of demonstration. The surface and its visual appearance links the two designs together to demonstrate the larger concept of a neighborhood identity.

In Neutra’s Alpha and Omega designs, he demonstrated a process of dynamic perception produced both by the textual and visual display of the magazine. Within the pages of *Arts and Architecture*, Neutra was able to transform the relationship between architect and audience. Through a narrative that emphasized a real experience of space, a plan that emphasized the view, and a standardized facade, Neutra demonstrated how the modernist house could prevail in contemporary subdivisions.

²¹⁴ Neutra, “Case Study House No. 13,” 33.

²¹⁵ McCoy, *Case Study Houses: 1945-1962*, 30.

Conclusion

Through demonstration as a framework, each chapter has centered on a case study of how Neutra demonstrated modernism. Returning to the definition of demonstration as an action that orders the process of observation carried out by the observer, I have attempted to expand discussions of Neutra's approach to design. I have argued that Neutra's model houses, as they were targeted directly to the consumer, offer important investigations into how the architect interacted with audiences. Contrary to prevalent approaches to Neutra's work, his architecture and its interest in form and technology was closely related to the influences of consumer culture even before the postwar period. Today, images of Neutra's model houses serve as iconic images of twentieth century modernism, yet they conveyed to the collective consumer at the time their easy, if not desirable inhabitability.

In Chapter 1, I compared Neutra's Zehlendorf Housing project to his design for the Vienna Werkbund in order to reveal how Neutra was responding to modernist discussions on the reconceptualization of interior space and the minimum dwelling. Heightened by their exhibition contexts, Neutra's Zehlendorf project and the Vienna model house privileged both visual and tactile experiences in order to explain the new forms of architecture then taking root. While a failure in the consumer market, the Zehlendorf project was the first instance in which Neutra grappled with the concept of the dwelling as a consumer commodity. As such, this project reveals that Neutra's interest in advertising and promotion was stimulated in Germany, not California.

The contemporaneous viewer of Neutra's Vienna design was required to adopt an active process of viewing that was capable of categorizing what is being seen on the exterior and interior plan of the building. In this sense, affinities among the Vienna model house, Neutra's Zehlendorf project and his projects from the 1930s onward come to the fore.

In Chapter 2, I argued that Neutra put the material of his model houses for the San Diego world's fair and the California Home and Garden Show on display in order to demonstrate the lifestyle benefits that could be gained by new technologies. While Neutra's interests in technology in this period are generally discussed as his own hermetic pursuit of the "forms and symbolism of the International Style,"²¹⁶ these designs reflect a response to pressures brought on by a New Deal-era consumer culture. By looking at these early designs from the 1920s and 1930s, within their consumer contexts in both Europe and California, I have also questioned traditional readings of Neutra's work that view his European and Californian projects within separate programs. A similar pursuit of the minimum dwelling surfaces in both the Beard House and the model house for the Vienna Werkbund, most notably in the appearance of the rooftop terrace.

In her writings on how photography influenced Le Corbusier and Loos, Colomina has argued that "modern architecture only becomes modern with its engagement with the media."²¹⁷ Chapter 3 of this thesis, in line with Colomina's argument, has examined

²¹⁶ Jordy, 9.

²¹⁷ Colomina, *Privacy and Publicity: Modern Architecture and Mass Media* (Cambridge: MIT Press, 1994), 14.

architecture beyond strictly built forms, considering how architectural representations passed fluidly to the public through magazines, photographs and drawings in the twentieth century. In Neutra's conception of his ideal client, the Omegas, they would bring him a clip-book of photographs of his work. By including these unbuilt model houses, I have also expanded the concept of the model, aligning with Christian Hubert's assertion that architecture is "at once pictures and buildings."²¹⁸

In Neutra's plans for the Alpha and Omega Houses, he placed an emphasis on the inhabitants' circuitous movement through the plan in order to activate the paired houses' performative qualities. While drawing from earlier principles demonstrated in his European model houses and the model houses of the 1930s, Neutra's Alpha and Omega are no longer stage sets. Anticipating the movement the observer would take in a tour of the model house, a dynamic representation of movement through drawings is conveyed in order for the reader to understand the demonstrative qualities of the design. The space, for example, represented for social use in the view of C2 allows for multiple vantage points to be assumed by the viewer, compared to the rotating platform from the Zehlendorf houses, which required the observer to position himself or herself in the living room in order to take in the "view" of the stage-like platform. By codifying the landscape into outdoor rooms, Neutra further guided the viewer through a sequential understanding of his design and what he thought would be the future site of display for the model house and its dynamic set of perspectives.

²¹⁸ Christian Hubert, "The Ruins of Representation," *Idea as Model*, ed. Richard Pommer (New York: Institute for Architecture and Urban Studies, 1981), 17.

One intention of my study has been to broaden discussions of modern architecture as a form of high art, by taking into account the various mediums architecture circulated through mass culture. In comparison to a permanent house built for a specific client on a specific site, the model house—in its medium’s ability to make visibly and spatially aware architectural ideas and its location within liminal sites of display—lend it the unique ability to bridge the high/low art gap.

In a final example, I would like to draw attention to an unpublished essay wrote around July 1963. Titled the “Four Courter House,” the article is premised on Neutra being asked what he thinks the “house of the future” in twenty years should look like. As the title suggests, Neutra reiterated the plan of the Four Courter House and the unbuilt Omega House. He retains his ideas for the courts, but adds several features, including a helicopter deck and dishwasher that cleans with “sound waves.”²¹⁹ He writes on the features of his design that “one could go on and on and on—until one lands at the polaroid sheets which substitutes for our old window glass. Their transparency can be regulated down to translucidity and opaqueness by merely switching in an electro-magnetic field. Thus, curtains and drapes will have become antiques like grandfather-clocks. The dreams of yesteryear, the possibilities of the present, become the commonplace of the future.” While intentionally humorous, the overall plan in its efficient design for the user did not change, only the materials for the consumer products and windows.

²¹⁹ “Four Courter House,” c. July 1963, 7. Folder 56, Richard and Dion Neutra Papers (Collection Number 1179). Department of Special Collections, Charles E. Young Research Library, UCLA.

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