NPS Form 10-900-b (Rev. 01/2009) OMB No. 1024-0018 (Expires 5/31/2012)

United States Department of the Interior
National Park Service

National Register of Historic Places Multiple Property Documentation Form

This form is used for documenting property groups relating to one or several historic contexts. See instructions in National Register Bulletin *How to Complete the Multiple Property Documentation Form* (formerly 16B). Complete each item by entering the requested information. For additional space, use continuation sheets (Form 10-900-a). Use a typewriter, word processor, or computer to complete all items

X New Submission _____ Amended Submission

DRAFT

A. Name of Multiple Property Listing

The Case Study House Program: 1945-1966

B. Associated Historic Contexts

(Name each associated historic context, identifying theme, geographical area, and chronological period for each.)

Experimental modern residential architecture of the Case Study House Program in California: 1945-1966

C. Form Prepared by

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D. Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this documentation form meets the National Register documentation standards and sets forth requirements for the listing of related properties consistent with the National Register criteria. This submission meets the procedural and professional requirements set forth in 36 CFR 60 and the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation.
(_____ See continuation sheet for additional comments.)

Signature and title of certifying official | Date

State or Federal Agency or Tribal government

I hereby certify that this multiple property documentation form has been approved by the National Register as a basis for evaluating related properties for listing in the National Register.

Signature of the Keeper Date of Action

Table of Contents for Written Narrative

Provide the following information on continuation sheets. Cite the letter and title before each section of the narrative. Assign page numbers according to the instructions for continuation sheets in National Register Bulletin *How to Complete the Multiple Property Documentation Form* (formerly 16B). Fill in page numbers for each section in the space below.

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Name of Property Los Angeles, California
County and State The Case Study House Program: 1945-1966
Name of multiple listing (if applicable)

Section number E Page 1

Summary Statement

This Multiple Property Submission covers the many resources that were part of the Case Study House Program in California from 1945 to 1966. Each property that meets eligibility requirements is eligible for listing in the National Register of Historic Places under both Criteria A and C at the local level of significance. Under Criterion A, these properties have significance for their association with experimental modern housing in the postwar years under the auspices of John Entenza's *Arts & Architecture* magazine. The properties are also significant in the area of architecture under Criterion C because they embody the distinctive characteristics of residential architecture of the Case Study House Program.

The historic properties associated with this Multiple Property Submission may be nominated for their association with events and architecture under the context: Experimental modern residential architecture of the Case Study House Program in California: 1945-1966.

E. Statement of Historic Context

Introduction

Residences of the Case Study House Program were associated with a multi-year program of experimental housing utilizing a vast array of traditional and new construction methods, materials, floor plans, fixtures, finishes, furnishings, landscaping, and ways of living under the unifying banner of Modernism as interpreted by the editor of *Arts & Architecture* magazine. As will be shown, the impact of the Case Study House program was profound and enduring.

Case Study houses embody the distinctive characteristics of residential architecture associated with the Modern Movement in California, and the Case Study program in particular. Whether of wood-frame or steel-frame construction, the houses share the modern qualities of flat roofs, deep overhangs, open floor plans, extensive use of glass, indoor/outdoor flow, and concrete slab foundations. The designs reject applied ornamentation or historical references. Many of the program houses were built of modest size in keeping with the original tenets as presented in 1945. In addition, all of the houses were designed by master architects, many of whom became nationally known because of their pioneering work within the program.

The Case Study House program of *Arts & Architecture* magazine was one of the most significant efforts at designing and building experimental residential housing ever attempted in the United States. From 1945 until 1966, the plans for 35 houses and one apartment building were published and 25 were built[1]. Under the auspices of *Arts & Architecture* magazine's editor and publisher John Entenza, architects associated with the Modern Movement - most of whom were practicing in Southern California - were selected to design modern, single-family residences that would take advantage of the latest advances in construction methods, planning, materials, furnishings, landscape design, and living arrangements. Experimentation was encouraged, but not at the sacrifice of utility. The construction of affordable, replicable housing prototypes - key original goals of the program – were generally not achieved for

[1] Although CSH #23, the Triad, is consistently treated as one property, for the purposes of listing in the National Register the houses must be considered individually. Specifically, Houses A and C meet the established registration requirements established below, but House B does not.

reasons that will be discussed here. What was achieved were a series of bold, individualized architectural statements with broad impact on local designers. This multiple property nomination form documents the historic and architectural significance of the Case Study House program and its associated dwellings located in California, concluding that those properties meeting eligibility requirements quality for listing in the National Register under Criteria A and C at the local level of significance. The nomination does not include Case Study Apartment (CSA) #1 constructed in Arizona, which is located outside of the jurisdiction of the California State Historical Resources Commission.

Some of the most revered, iconic examples of the Modern Movement ever constructed were products of the Case Study House program, including the 1945-49 Eames House (Case Study House #8) and Pierre Koenig's 1959-60 Case Study House #22. In the last 20 years there have been important museum exhibitions on both the Case Study House program and individual Case Study designers (Eames, Neutra) as well as an exhaustive 439-page Case Study House tome published by Taschen in 2002. Numerous critical essays examining the history and legacy of the program tend to agree that, despite the program's failures, "John Entenza's grand experiment in residential architecture created a model for mid-century living"[2] and was "the most significant statement of architectural commitment that America had ever seen."[3]

The property type associated with this nomination is "Single-family residences of the Case Study program," and includes two subtypes: wood-frame dwellings and steel-frame dwellings. All of the program's built residences are integral components of the Case Study House program and should be considered as a whole. Each individual residence also stands on its own as an exemplar of both the Case Study House program and of the architect's highest capabilities as a disciple of the Modern Movement in America. As noted, eligible properties appear to qualify for individual listing in the National Register under Criteria A and C at the local level of significance.

John Entenza and *Arts and Architecture* Magazine

John Entenza had not studied architecture but was drawn to it early in life and was fully versed in the history of the Modern Movement in Europe, Latin America, and the United States. He was born in 1905 in Niles, Michigan, to a Scottish Mining heiress and a Spanish attorney involved in migrant workers' issues. He studied liberal arts at Tulane University and the University of Virginia at Charlottesville, attaining a Bachelor of Arts from the latter. Entenza worked in the office of Secretary of Labor James J. Davis in Washington D.C. as preparatory work for a diplomatic career. However, his career path changed and Entenza moved to California. From 1932-1936, Entenza worked at Metro-Goldwyn-Mayer in experimental film production. After the unit folded due to the depression, Entenza's interests turned towards architecture.

According to architecture critic Barbara Goldstein, Entenza had "always been interested in the design of boats, he began to develop a fascination with modern architecture when his father's partner commissioned, then rejected, a house design by Harwell Hamilton Harris."[4] In 1937, Entenza himself commissioned Harris to design and build him a house. Soon after, through the same partner of his father's, Entenza began working as an editor of *California Arts and Architecture* magazine, "a rather

[2] Paul Makovsky, "Making a Case," *Metropolis*, April 2002, page 99.
[3] Michael Glickman, "Case Study Celebration," *Architectural Review,* October 1989, Volume 186, Number 1112, p. 98.
[4] Barbara Goldstein, *Arts & Architecture: The Entenza Years*. Cambridge, Massachusetts: The MIT Press, 1990. Introduction.

staid provincial publication focusing on local residential architecture and gardening."[5] By 1938 Entenza had purchased the magazine and begun redirecting it.

A substantial number of young, progressive, creative people had relocated to Los Angeles in the 1920s and 1930s. Like Entenza himself, many came to work in the film industry. During the Depression and through the early 1940s, European émigrés and expatriates such as Aldous Huxley, Billy Wilder, Josef von Sternberg, Thomas Mann, Arnold Shoenberg, Christopher Isherwood, and Man Ray located in Los Angeles. In the 1920s, young modernist architects such as Rudolph Schindler, Richard Neutra, Lloyd Wright, and Julius Ralph Davidson arrived.

The creative and progressive people swirling around Entenza helped encourage him to reformat *California Arts & Architecture* into a vehicle reflecting the avant-garde community and give it a strong voice. In 1940 the reformatted cover and layout of the magazine debuted with the publication targeted towards a national audience with a mission of chronicling many aspects of the Modern movement. In addition to architecture, the magazine discussed visual arts, literature, furniture design, music, and social and political topics. As a collaborative effort, Entenza sought out the most creative and artistic minds of the era and published their work. Expressing new ideas through the magazine was a passion of Entenza's with the result that *Arts & Architecture* was "among the first magazines in America to present the work of Hans Hofmann, Craig Ellwood, George Nakashima, Bernard Rosenthal, Charles Eames, and others."[6]

According to Goldstein, John Entenza's friends described him as "a very moral man with a strong work ethic. He was dignified and immaculate, usually dressed in a dark suit and polished shoes. At the same time, he enjoyed his comfort, and being surrounded by friends. He seldom arrived at the office before noon, had a caustic wit, and loved gossip. A lifelong bachelor, he lived for many years with his adopted son, Kenneth, a homeless teenager who had been living on the beach when Entenza met him during the Depression."[7]

During the war years and early postwar period, Entenza was also president of Plyformed Wood Co. under contract to the United States Navy and Air Corps. As the years progressed, Entenza was appointed a member of the California Governor's Council on Regional Planning, a member of the California Council on Regional Planning, and a member of numerous juries on art and architectural competitions.[8] Said architectural historian, author, and critic Esther McCoy of Entenza, he was "essentially an educator, his lesson was simply that we live with architecture and it is the concern of all; he kept a democratic faith in the ability of the public at large to understand a good living environment when it was presented."[9]

In 1977 Esther McCoy wrote a new introduction for the reprint of her 1962 book on the Case Study Program. In looking back at the program's early years, she noted that the influence of *Arts & Architecture* magazine was vast. "*A & A* was known and respected in Europe, Japan, South America

[5] Ibid.
[6] Ibid.
[7] Ibid.
[8] Taken from a short biography of John Entenza written by Esther McCoy in her 1962 book, *Case Study Houses 1945-1962*.
[9] Esther McCoy, *Case Study Houses 1945-1962*. Los Angeles: Hennessey & Ingalls, Inc., 1977. Pp. 8-9. The book was originally published in 1962 under the title: *Modern California Houses*, but was out of print until the 1977 Hennessey & Ingalls publication.

and at home; it was the only magazine in the U.S. which devoted its pages exclusively to modern work..."[10] In terms of the magazine's impact on architects, McCoy believed that the younger generation of architects were more interested in being published in *Arts & Architecture* than older designers for whom the established eastern magazines were still preferred.

Remarked Reyner Banham, a renowned observer of Los Angeles, "By 1950 or so [*Arts & Architecture*] had begun to enjoy a reputation far larger than its slender bulk and apparently provincial origins would have led one to expect."[11] According to Esther McCoy, "A slim magazine with no outside financial backing became the greatest force in the dissemination of cultural information about California."[12]

Antecedents to the Case Study House Program

It is appropriate to consider the *Arts & Architecture* Case Study House program as part of a continuum of experimental and prototypical residential design originating out of Europe, particularly Germany, in the 1920s and 1930s. The great International Style architect Ludwig Mies van der Rohe coordinated a well-known housing exhibition in Stuttgart in 1927[13] where such architects as Le Corbusier, Walter Gropius, Mart Stam, and Mies himself contributed designs. The completed houses were minimalist demonstration projects designed as prototypes. Modern housing projects in Frankfurt for German workers that were built in the 1920s also served as inspiration for the Modern Movement. These efforts at presenting tangible demonstration projects to the public must be acknowledged as among the European precedents for *Arts & Architecure's* Case Study effort.

In pre-World War II America, there were a number of Case Study house precedents. The *Ladies Home Journal* in the early years of the twentieth century published Frank Lloyd Wright's design for "A Small House with Lots of Rooms in It," a low cost residential prototype. Wright's design received enormous attention, as did R. Buckminster Fuller's Dymaxion House, which, although not actually built in full scale as a demonstration house until 1946, was nevertheless widely published when first proposed by Fuller in the 1920s. Fifteen residential prototypes in the "Town of Tomorrow" were exhibited in the 1939 New York World's Fair, several of which were modern. However, when compared with Europe's greater embrace of Modernism by architects, particularly in mass housing, such efforts were rare in the United States outside the context of World's Fairs and existed primarily as isolated examples.[14]

The two decades prior to World War II saw a handful of Southern California architects maintain their commitment and devotion to the Modern Movement. They were the foundation upon which the younger postwar architects of the Case Study House program constructed their houses. Rudolph Schindler, Richard Neutra, Gregory Ain, Harwell Hamilton Harris, J.R. Davidson, and Raphael Soriano established a residential design vocabulary of flat-roofs, open floor plans, an orientation away from the street and towards private gardens at the rear, integration of outdoor space with indoor space, and generally accomplished with the use of inexpensive materials.

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[10] McCoy, *Case Study Houses*, p. 2.
[11] Reyner Banham, "Klarheit, Ehrlichkeit, Einfachkeit...And Wit Too! The Case Study Houses in the World's Eyes." An essay in the exhibition catalogue *Blueprints for Modern Living: History and Legacy of the Case Study Houses*, Exhibition organized by Elizabeth A.T. Smith for the Museum of Contemporary Art, Los Angeles. Cambridge: The MIT Press, 1989, p. 186.
[12] McCoy, *Case Study Houses*, p. 3.
[13] The 1927 Stuttgart exhibition was called the Weissenhofsiedlung and was developed under the aegis of the German Werkbund.
[14] Elizabeth A.T. Smith, *Case Study Houses- The Complete CSH Program 1945-1966,* Italy: Taschen GmbH, 2002, p. 8.

Mindful of the talent and profound commitment of these Southern California architects to the principles of the Modern movement, Entenza felt confident that his Case Study House program would make use of many of the greatest design talents of his generation.

The Case Study House Program Manifesto

During the long years of the Great Depression and the Second World War, American architects anticipated the end of hardships in the availability and affordability of new housing. Wartime restrictions had virtually ended new residential construction, but, by 1945, progressive architects sensed that the postwar years would inaugurate an era of freedom and experimentation in housing design based on new materials, construction techniques, floor plans, and ways of living. John Entenza in *Arts & Architecture* magazine articulated these ideals in his manifesto inaugurating the Case Study House program in the January 1945 issue. He wrote, "...certainly we can develop a point of view and do some organized thinking which might come to a practical end. It is with that in mind that we now announce the project we have called THE 'CASE STUDY' HOUSE PROGRAM."[15]

In his 1945 announcement, Entenza wrote, "We are proposing to begin immediately the study, planning, actual design and construction of eight houses, each to fulfill the specifications of a special living problem in the Southern California area."[16] Eight architects were commissioned to "...create 'good' living conditions for eight American families. They will be free to choose or reject, on a merit basis, the products of national manufacturers offering either old or new materials considered best for the purpose by each architect in his attempt to create contemporary dwelling units."[17] "Architects will be responsible to no one but the magazine, which having put on a long white beard, will pose as 'client.' It is to be understood that every consideration will be given to new materials and new techniques in house construction."[18] Manufacturers of building materials and appliances agreed to cooperate with the program by making available the latest advances in technology and product development. However, Entenza would not sanction the use of materials or products merely because they were new. Finally, "The house must be capable of duplication and in no sense be an individual 'performance.'"[19]

The houses were to be opened to public inspection upon completion for up to eight weeks. Entenza wanted to see solutions that could be applied generally "...to be of practical assistance to the average American in search of a home in which he can afford to live."[20]

Regarding the possible attitudes of home buyers in the postwar years, Entenza pondered, "Perhaps we will cling longest to the symbol of 'house' as we have known it, or perhaps we will realize that in accommodating ourselves to a new world the most important step in avoiding retrogression into the old, is a willingness to understand and to accept contemporary ideas in the creation of environments that is responsible for shaping the largest part of our living and thinking."[21] It was Entenza's hope that the program would result in houses reflecting "...the spirit of our time, using as far as is practicable, many war-born techniques and materials best suited to the expression of man's life in the modern world."[22]

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[15] John Entenza, "Announcement: the case study house program," *Arts & Architecture*, January 1945, p. 37.
[16] Ibid.
[17] Ibid.
[18] Ibid, p. 38.
[19] Ibid.
[20] Ibid.
[21] Ibid, p. 39.
[22] Ibid.

Entenza understood that the greatest impediment to the ultimate success of the Case Study House program would be, "...the tenacity with which man clings to old forms because he does not yet understand the new."[23] He believed that it was the obligation of architects, builders, manufacturers and *Arts & Architecture* magazine to educate the public on new methods of construction and new ways of living for the overall improvement in the quality of life of the average American. Entenza concluded his manifesto, "We hope [the program] will be understood and accepted as a sincere attempt not merely to preview, but to assist in giving some direction to the creative thinking on housing being done by good architects and good manufacturers whose joint objective is good housing."

Elizabeth A.T. Smith, curator of the Los Angeles Museum of Contemporary Art's seminal 1989 exhibition "Blueprints for Modern Living: History and Legacy of the Case Study Houses," wrote that Entenza's "...unyielding emphasis on modernism...made *Arts & Architecture* an ideal forum for the propagation of an effort such as the Case Study House program, in which social and artistic concerns merged at a moment of crucial historical importance."[24]

The early postwar years were potentially ripe for experimentation due to the plethora of clients, but McCoy believed "architecture was a big word to the family who needed a house in a hurry; architecture has always been a big word in America."[25] It was Entenza's fear that architecture would regress at war's end that led him to take a leading role in helping bring about, and widely publicize, a new architectural vision for America. The Case Study House program encouraged design that it was hoped "would turn the tide against the Anne Hathaway cottage and the salt box."[26]

John Entenza personally selected the architects whose work would be presented in his magazine. Because of this, it would be incorrect to suggest that the Case Study House program was a comprehensive overview of American, or even Californian, approaches to low-cost modern housing. It is not known precisely why Entenza chose not to invite several important modern architects working in Southern California to participate in the program including Rudolph Schindler, Gregory Ain, John Lautner, and Carl Maston.

One of the distinguishing characteristics of the program was its devotion to the two-bedroom/two-bath, single-family residence. Most other architectural journals of the period were interested in larger houses and more impressive commissions. For most of the program, Entenza promoted contemporary design solutions to the problem of providing American families with well-designed, forward-looking, yet modest homes.

The Early Years 1945-1948

In 1945 with the announcement of the program, eight design offices were selected by Entenza to produce plans for the first eight houses. They were J.R. Davidson, Richard Neutra, Spaulding and Rex, Wurster and Bernardi, Ralph Rapson, Whitney Smith, Thornton Abell, Eames and Saarinen.

During the first three years of the program, six houses were completed, furnished, landscaped, and

[23] Ibid.
[24] Smith, *Case Study Houses*, p. 8.
[25] McCoy, *Case Study Houses*, p. 9.
[26] Ibid, p. 3.

opened to the public. The reaction was remarkable – 368,554 persons visited the six houses.[27] It must be noted that not all of the Case Study houses were designed under the magazine's auspices. Esther McCoy states that "the success of the program and the delays in construction in the early phase were responsible for certain houses being pulled into the program after construction was almost completed, simply to keep worthy examples of design before the public."[28]

Julius Ralph Davidson designed the first Case Study House presented in the February 1945 issue of *Arts & Architecture* magazine. The simple, compact, two-story residence was conceived for a hypothetical family consisting of a couple, one child, and an in-law. The two-story house was not constructed, however, and the plan was greatly altered when a couple came forward with a small lot located in North Hollywood. Case Study House #1 was actually built in 1946, and was smaller and one story in height, but of similar materials and concept.

From 1945-1948 there were also a large number of projects that remained unbuilt. Most of these designs were highly unconventional and experimental, with the architects exploring new ideas in materials, floor plans, and construction techniques. The hope was that clients would emerge who were receptive to these new concepts. Ralph Rapson's "Greenbelt" House (CSH #4) and Whitney Smith's "Loggia House" (CSH #5) were two highly acclaimed unbuilt projects from this period.[29] Other projects were sometimes changed quite considerably from their published plans. The best example is the Eames House, which was originally published in the December 1945 issue of *Arts & Architecture*, but, when completed in 1949, was essentially a different house.

During the early years, the Case Study Houses shared the qualities of modular building components for efficiency in construction, glass walls for a relaxed indoor/outdoor flow, and were primarily modest in size with open floor plans, many built-in furnishings, and rational kitchens. There were still, however, the issues of limited availability of building materials and, in practical terms, few clients for modern houses in these years. Although these designs "were auspicious early contributions to the program,"[30] the houses generally were similar to designs that the architects had proposed or built prior to the program's inauguration.

McCoy suggests that the public's fascination with the Case Study House program, particularly in its early years, was with the interiors and gardens of the model residences. The decidedly modern furnishings manufactured and distributed by the Herman Miller Company and Knoll International were regularly used to decorate interiors. Designers such as Charles and Ray Eames, Eero Saarinen, Harry Bertoia, Isamu Noguchi, George Nelson, Florence Knoll, and others produced furniture of the size, scale, and character appropriate to Case Study homes. Prior to World War II, modern architects often had to design their own furniture as available pieces were invariably overstuffed or overwrought.

Small factories of artisans produced many of the decorative objects that appeared in the Case Study houses. New designs in floor coverings, textiles, lamps, tableware, kitchen utensils, and accessories

[27] McCoy, *Case Study Houses*, p. 10.
[28] Ibid, p. 210.
[29] A full-size version of Rapson's "Greenbelt" House was actually constructed and furnished within the confines of a large industrial warehouse space, then known as the "Temporary Contemporary" branch of the Museum of Contemporary Art, in Los Angeles in1989-90. It was a key element in the exhibition "Blueprints for Modern Living: History and Legacy of the Case Study houses" curated by Elizabeth A.T. Smith.
[30] Smith, *Case Study Houses,* p. 8.

appeared in the houses. Kitchens had the best-designed new appliances. Said McCoy, "...the Case Studies were something of a signal that peace was here and talents were blooming."[31]

For exterior spaces, Hendrik Van Keppel of Van Keppel-Green created a line of tubing-and-cord patio furniture that was very popular with the Case Study architects. Architectural Pottery of Los Angeles provided vessels for plants that were wholly in keeping with the architecture, indoor and outdoor, in which they were placed. Architectural Pottery's owners, Max and Rita Lawrence, commissioned many of the best ceramicists and sculptors available to design the inspired new shapes that appeared in the Case Study homes.

The contributions of landscape architects such as Garrett Eckbo, Dean and Williams, Eric Armstrong, and others to the program brought low-maintenance gardens, textured surfaces in walks, pavings and walls, and right angles and diagonal lines in garden layouts to the attention of the general public. This was in stark contrast to the curves and flow of the romantic tradition. A variety of unfamiliar plants appeared in Case Study House gardens such as ajuga, festuca, lirope grass, and red flax.[32]

The Years of Steel 1949-1962

Charles and Ray Eames' Case Study House #8 and the Entenza Case Study House #9 were the first of the program houses to break from the design vocabulary of 1930s Los Angeles Modernism. By 1949, improved economic conditions and the greater availability of industrial materials including steel for residential construction finally allowed architects to take full advantage of new technology in house design. The Years of Steel brought forth the program's iconic examples by architects Charles Eames, Eero Saarinen, Raphael Soriano, Craig Ellwood, and Pierre Koenig. These houses are among the most outstanding of mid-century American modernism. In particular, the Eames House has attained the status of an international modernist icon.

In 1950, after the completion of 13 houses, Entenza reduced the program to one house a year. According to Smith, it was not until the 1950s that the Case Study architects "...were able to fully embrace the ideal of experimentation with industrial materials and construction systems that underlay the thinking behind the program's genesis."[33] Due to the growing reputation of the program in the 1940s and the increasing prosperity of the postwar period, most of the Case Study Houses published after 1950 were actually built. In addition, wealthier clients with a commitment to modernism commissioned some of the houses as the decade progressed, leading to some of the most costly houses of the program.

The steel houses most closely approximated the rationalism of the International Style that had evolved in 1920s Europe and many of whose originators now taught in American design schools, particularly in Chicago and the northeast. The application of industrial materials and construction methods to residential design in the southwestern United States was most reminiscent of the spirit of the International Style.

The subsequent fame of the program's steel houses somewhat overshadowed the achievements of the

[31] McCoy, *Case Study Houses*, p. 5.
[32] Ibid.
[33] Smith, *Case Study Houses,* p. 8.

many important modern designs rendered in wood-frame post and beam and sheathed in a variety of materials including stucco, natural rock, wood, and laminates from the forties and fifties. Walls of glass used in establishing an indoor/outdoor flow, however, linked all of the Case Study houses. Architects whose Case Study work is associated primarily with wood-frame post-and-beam design include Thornton Abell, Julius Ralph Davidson, Richard Neutra, Rodney Walker, and the firms of Buff, Straub & Hensman, and Killingsworth, Brady & Smith. Although not as sober as the steel-framed houses, the program's wood-frame designs also strived towards mass production by utilizing modular construction and standardized parts.

By the late 1950s, evolving attitudes towards Modernism and wealthier clients resulted in larger houses with greater emphasis on finishes. For instance, Killingsworth, Brady & Smith designed a large, sumptuously appointed residence (Case Study House #25) along a canal of the Naples section of Long Beach in 1962.

The best effort *Arts & Architecture* made to foster a sense of neighborhood was Case Study House #24, a 1961 plan for a tract of 260 houses, designed by A. Quincy Jones and Frederick Emmons and adopted for construction by Eichler Homes. Unfortunately, this project was not constructed because local planning authorities argued that the individual lot sizes were too small (despite the generous shared spaces in the design and an overall size of 142 acres for 260 houses) and that the common green areas might not be maintained.

In 1962 John Entenza sold *Arts & Architecture* magazine to David Travers. Entenza's responsibilities as Director of the Graham Foundation in Chicago were too great to continue editing a Los Angeles-based magazine with the time and care the publication required. Under Travers, the magazine continued to support the Case Study House program, expanding its geographical scope beyond California to include Phoenix, Arizona. Case Study Apartment (CSA) #1 of 1963-64 by architects Alfred N. Beadle and Alan A. Dailey was a prototype triplex for a planned community of 80 units in Phoenix. Unfortunately, only the triplex was ever built. The effort was the first example of multiple-family housing in the program. In addition, CSA #1 was a truly replicable prototype, one of the original goals of the Case Study House program as envisioned by John Entenza in 1945. In 1966 *Arts & Architecture* folded. In all, 36 Case Study House designs were published with 25 actually constructed.

Weaknesses of the Case Study House program

Despite Entenza's declarations in his 1945 manifesto, the Case Study House program did not achieve several of its primary goals. Very few of the projects became replicated prototypes. For a variety of reasons, including the increasing cost of materials, especially steel, the reluctance of banks to provide loans for modern houses, the reticence of developers to commit to the designs, and, finally, the lack of demand by homebuyers, the Case Study houses remained singular architectural statements. As wealthier individual clients for the Case Study houses emerged, the designs further departed from what working class or middle class Americans could afford. Ultimately, most homebuyers were still attracted to traditional and familiar eclectic facades and pitched roofs although the acceptance of open floor plans, picture windows, sliding glass doors, up-to-date appliances, and gardens was most likely due to the influence of the widely publicized Case Study houses.

Author and critic Thomas Hine concluded that the Case Study House program "did not address many of the key issues of postwar housing – particularly the creation of a new kind of mass suburbia. Although

widely condemned as ugly even while it was happening, and deplored for its impact on the land, suburbia never got the kind of serious scrutiny and experimentation it deserved. The Case Study program, with its increasing concentration on large houses on choice hillside sites, paid only slight attention to the sprawl happening in the valleys."[34]

Unlike the mass-market developers such as Levitt and the builders of Lakewood and other suburban tracts, Case Study architects had impressive, carefully crafted houses to display but no financial backing to produce them in quantity. "So the Case Study marketing efforts were more show than sell. They got 368,554 Los Angeles residents to visit the first six Case Study houses,...but they had no way to back up the Case Study houses with sales contracts." [35] In addition, banks were generally unwilling to grant loans on such houses because they did not conform to the loan requirements of the Federal Housing Administration (FHA), which banks commonly adhered to.

Dolores Hayden in a 1989 essay concluded, "As the history of the Case Study program shows us, even the most excellent designs for individual houses cannot, in themselves, lead to the sweeping changes required to house the majority of Americans in new ways. But as the legacy of the program suggests, innovation in housing across cultural, social, technological, and economic boundaries is still urgent."[36]

The Importance of the Steel Houses

In the decades since the Case Study Program ended, two houses, both steel-framed, have emerged as perhaps the program's most sublime examples: Case Study House #8, the Eames House, and Case Study House #22 by Pierre Koenig. Helping to establish the iconic status of these residences were the widely published photographs of Julius Shulman, with Case Study House #22 being the most recognizable image symbolizing the entire program. The stunning, dramatic photo of a cantilevered, steel house perched atop the hills above Los Angeles captured the essence of postwar modernity and optimism – the freedom of open space within the minimal confines of lightweight steel looking upon a limitless vista of opportunity.

Regarding the Eames House, Michael Glickman wrote in the UK's *Architectural Review*, "It demonstrates, beyond doubt, that buildings of supreme grace can be assembled from a catalogue of industrially produced components. Previous exemplars of the Modern Movement were, whatever their aspirations or imagery, handcrafted. Case Study House #8 rewrote the rulebook and established a standard for subsequent Modernism. Industrialization can work magnificently for architecture."[37]

David Jenkins, coauthor of the book *Pierre Koenig* (Phaidon, 1998) said of Case Study House #21 (Koenig's steel house built in 1958 in the Hollywood hills), "The house is exquisite. It ranks up there with the great glass houses of Mies van der Rohe and Philip Johnson."[38] Koenig himself said of the house, "I was trying to develop 1,300 square feet in an efficient, social, and exciting plan that people

[34] Dolores Hayden, "Model Houses for the Millions: Architects' Dreams, Builders' Boasts, Residents' Dilemmas." An essay in the exhibition catalogue Blueprints for Modern Living: *History and Legacy of the Case Study Houses*, Exhibition organized by Elizabeth A.T. Smith for the Museum of Contemporary Art, Los Angeles. Cambridge: The MIT Press, 1989, p. 201.
[35] Ibid, p. 210.
[36] Ibid, p. 201.
[37] Glickman, p. 98.
[38] David Hay, as quoted in "Returning to the Scene," *House Beautiful*, October 1998, page 108.

could afford."[39]

Writing in the journal *Architectural History* in 1990, Neil Jackson analyzed the legacy of the metal-framed house with particular attention to the work of Raphael Soriano. Case Study House 1950 was Soriano's attempt at designing a house capable of being mass-produced. Said Soriano of his goals, "My whole idea was to have [prefabrication] in housing...because we need housing for the public, and I was trying to pursue this in the assembly method, prefabricated."[40] The following decades, however, proved that consumers did not believe that metal-framed housing was desirable because the buildings lacked the flexibility for personalization that homeowners required. The material and system of construction was adaptable to a variety of building types: filling stations, schools, convenience stores, and factories, but it was never embraced as a system for housing.

"The problem, it seems, was endemic in the product for it suited everything and was specific to nothing," Jackson wrote, continuing, "Thus it surely was not, as Esther McCoy has suggested, that 'the steel frame was too strict to lend itself to mass production,'.... but it was more the case that prejudice on the part of the public and even the leaders of the steel industry forced the market to turn to comfortably familiar solutions."[41]

Said Michael Brawne, writing in the September 1966 "Eames Celebration" issue of *Architectural Design*: "Where the Eames House, however, differs from its nearest predecessor, the steel-framed buildings of Soriano, and also its possible successors, the houses of Koenig, Craig Ellwood and others in the Los Angeles area, is that its composition is wholly additive, with frame and cladding not separated, but working together, and that it possesses wit, a quality extremely rare in architecture."[42]

The Years of Steel were unique, highly individualized statements by some of the greatest architects working in the Southwest, but, as stated earlier, they generally did not meet the goal as replicable housing prototypes. Reyner Banham, however, argued strongly in 1989 that the greatest legacy of the steel-framed Case Study houses was not in residential design, but in industrial architecture. He believed that the High Tech style popular with corporate industrial buildings of the 1970s and 1980s was a direct outgrowth of Eames' and Ellwood's Case Study houses. Banham argued that the steel houses "...may well have wrought a permanent change on the face of architectural design worldwide and altered our understanding of modern architecture." [43] He traced Ellwood's 1966 Scientific Design Systems plant in El Segundo, California as one of Ellwood's houses expanded to industrial scale. The Teledyne plant in Northridge, California by Cesar Pelli, also of 1966, is seen by Banham as a variation upon the Eames House. From there the flat-topped, glass and steel-walled industrial buildings of Silicon Valley emerged and "by emulation traveled to the rest of the industrializing world – and in this sense, the Case Study houses of the steel-and-glass phase have contributed to the creation of a global industrial vernacular."[44]

Neil Jackson asked, "Why was this 'The Style that Nearly...'? The answer must lie in the realization

[39] Ibid, p. 110.
[40] Neil Jackson, "Metal-frame houses of the Modern Movement in Los Angeles. Part 2: The Style that Nearly...," *Architectural History 1990*, Volume 33, page 167.
[41] Ibid, pp. 182-183.
[42] Michael Brawne, "Eames Celebration," *Architectural Design*, September 1966.
[43] Banham, p. 191.
[44] Ibid.

that the metal-frame house was not, ipso facto, a style but a system. And as a system, a facilitator of the additive process and the seemingly casual juxtaposition of different images, it surely did succeed."[45]

Said architectural critic John Chase, "In photographs, the ultimate Case Study houses by Koenig and Ellwood look like the final chapter in the evolution of domestic architecture; their restful balance of horizontal and vertical planes and expanses of glass seem to be unsurpassable."[46]

MOCA's 1989-1990 Case Study House exhibition

In 1989 Elizabeth A.T. Smith, then the Director of the Architecture and Design program of the Museum of Contemporary Art (MOCA) in Los Angeles, curated an exhibition entitled, "Blueprints for Modern Living: History and Legacy of the Case Study Houses." The exhibition and accompanying catalog were substantially reviewed and discussed in the academic, architectural, and popular press. Within the converted warehouse space of the museum were constructed full scale recreations of three of the Case Study Program houses: the unbuilt 1945 "Greenbelt House" project (CSH #4) by Ralph Rapson, the 1960 Case Study House #22 by Pierre Koenig, and a section of the 1949 Eames House (Case Study House #8) by Charles and Ray Eames. The exhibition included large blowups of original Julius Shulman photographs of many Case Study houses as well as renderings, floor plans, models, and documentary films and videos. An exhibition catalog written and edited by Elizabeth A.T. Smith included historical articles, critiques and reinterpretations of the program and its legacy, many of which are quoted in this document.

Said John Chase of the exhibition in 1989, "Just at the moment when the press and the public are equally satiated with both postmodern irony and post-industrial de-con obfuscation, the modernist glass and steel pavilions of the Case Study house era appear refreshingly direct."[47] He concluded, "The show is a magnificent tribute to the program, and MOCA is to be congratulated." Esther McCoy called the construction of the two houses and a section of the Eames House under a museum roof "an inspiration."[48]

In reviewing the 1989 MOCA show on the Case Study House program in Los Angeles, Michael Glickman wrote in the UK journal *Architectural Review*, "The essential principals of Modernism – integrity of structure, clarity of space and social and political progressiveness – were embodied in the Case Study Houses which exerted an influence on latter-day Modernists more pervasive than that of the better known example of International Style Modernism, the Weissenhofsiedlung rational housing programme in Stuttgart, 1927."[49] Glickman concluded, "This was the most significant statement of architectural commitment that America had ever seen"[50]…, "The exhibition should be brought to Europe. Perhaps it might help us see that, rather than dredging the stagnant ponds of a nostalgic yesteryear, there is relevant history closer to hand."[51]

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[45] Jackson, p. 183.
[46] John Chase, "Rehabilitating Modernism," *L.A. Architect*, December 1989, p. 5.
[47] Chase, p. 5.
[48] Esther McCoy, "Case Study Houses Remembered at MoCA," *Progressive Architecture*, December 1989, Volume 70, Number 13, p. 33.
[49] Glickman, p. 98.
[50] Ibid.
[51] Ibid.

It can be reasonably inferred that the impact of the 1989-1990 MOCA show was a key element in the resurgence of interest in Modernism in Southern California in the 1990s, particularly the houses designed by the Case Study architects. During the nineties and 2000s, custom, architect-designed mid-century modern houses appreciated tremendously in value.

In 2002, Taschen GmbH published "Case Study Houses: The Complete CSH Program 1945-1966." Utilizing her expertise and credentials as the curator of the 1989 exhibition and writer of the show catalog, Elizabeth A.T. Smith authored this 443-page, lavishly illustrated tome. In it she continued the discussion of the Case Study House Program and its legacy. Each of the 36 Case Study Houses was individually presented, illustrated, and evaluated. Also included were biographies of all of the Case Study House architects.

The Impact of the Case Study House program in Europe

Reyner Banham wrote in 1989 on the impact that the program had on contemporary European designers of the period and its legacy to that point. Banham believed that "for the modernist establishment in Europe, the immediate followers of Le Corbusier and Walter Gropius, the appeal of the Case Study houses lay in the way they reinforced the dogmas of honesty, clarity, and unity, the exposure of structure, the use of certifiably modern materials, and the absence of ornament."[52]

"In many offices that I used to visit in the London of the middle fifties," Banham continued, "pages from *Arts & Architecture* were often pinned up on the corkboard above the designers' work stations, and the products of this inspiration could be clearly seen on the drafting boards below."[53] The impact of *Arts & Architecture* was multiplied by the many articles reprinted in European design magazines of the era, such as the German *Bauen und Wohnen*, a well-regarded periodical, "very influential in academic circles, and also a prime source of material for other magazines."[54]

Banham concluded that the influence of the Case Study program "more commonly operated at the level of helping give younger architects the courage to fight for, and realize, their steel-and-glass ambitions....The reassuring domestic scale of the Case Study houses was more relevant [than Mies' projects] to the size of the commissions they might expect to realize at an early stage of their careers."[55]

The Legacy of the Case Study House program

Esther McCoy believed that the early success of the Case Study House program resulted in building departments becoming more lenient in approving non-traditional designs and banks' increasing willingness to offer loans for modern houses. Both of these institutions had had strong reservations about the structural viability and resale value of modern residences.

In 1977, McCoy wrote "By 1962 it had become clear that the battle for housing had been won by the developers, with more drafting services involved than architects. Housing was a gigantic industry, and the cost of land and construction was of greater concern to the builders than good environment. By

[52] Banham, p. 185.
[53] Banham, p. 186.
[54] Ibid.
[55] Ibid, pp. 189-191.

1960, the custom-built family small house was being priced out of existence. The Case Study house was a social program; it essentially ended when the house became a luxury." [56]

According to Elizabeth A.T. Smith, the Case Study houses "epitomized the aspirations of a generation of modern architects active during the buoyant years of America's post-World War II building boom. By its end in 1966, despite the fact that many of the early designs were not built and few, if any, of the houses had served their intended function as replicable prototypes, the Case Study House program succeeded in producing some of the period's most important works of residential architecture."[57]

Several of the Case Study House architects produced some of their earliest work for the magazine, helping to establish their reputations. Craig Ellwood, who designed three Case Study Houses, and Pierre Koenig, who designed two, were both in their early thirties when commissioned by Entenza for the program. Case Study architect Edward Killingsworth had been inspired by Entenza's manifesto at the end of World War II. He said, "When the Case Study program was announced it seemed the direction toward the many things for which we were searching; a new way of life, better living...."[58] Said Ellwood in 1962 of the program, "ideas have become important buildings that otherwise might never have existed. This has been the program's prime function, its foremost achievement."[59]

Said Smith in 2002, "Today the Case Study Houses continue to have wide relevance and influence within architectural culture, not only in Los Angeles, but also nationally and internationally. These houses, and the spirit behind them, serve as a model for architects committed to reductive, yet experimental, modes of residential design and construction."[60] Smith continues, the program's "legacy in the architectural culture of Los Angeles is still palpable. The most overt indicator of its continued vitality is the extent of general awareness and admiration of the program among today's architects, particularly those of a younger generation."[61]

The legacy of the Case Study House program also extends to the influence of a number of Case Study House program architects who went on to influence a new generation of architects through their efforts as instructors at Southern California architectural schools. Sumner Spaulding, Conrad Buff III, Calvin Straub, Donald Hensman, and Pierre Koenig all taught design at the University of Southern California where their students included Frank O. Gehry and Thom Mayne in the 1950s and 1960s.

John Entenza-expert Barbara Goldstein called the Case Study House program "...one of the most intriguing design experiments in 20th-century America."[62] She continued, "The Case Study House program did have an impact on thinking about houses. It influenced the hierarchy of the postwar house plan; it presented ideas for casual life styles, for merging indoor and outdoor space, and for innovations in kitchens and landscapes."[63]

Historian Kevin Starr wrote that the program "sought to open up the question of postwar domestic

[56] McCoy, *Case Study Houses*, p. 5.
[57] Smith, *Case Study Houses*, p. 8.
[58] McCoy, *Case Study Houses*, p. 10.
[59] McCoy, *Case Study Houses*.
[60] Smith, *Case Study Houses*, p. 8.
[61] Ibid, p. 9.
[62] "The History and Legacy of the Case Study Houses." *Architecture: The AIA Journal*, December 1989, Volume 78, Number 12, p. 19.
[63] "The History and Legacy of the Case Study Houses." p. 22.

design and life style from a national, even international, perspective."[64] Said John Chase, "Ultimately the Case Study House program became a torchbearer for high art. Those houses looked the way they did, not because they would be cheaper to build, but because they represented an aesthetic of paring down, of lightness and openness, of newness and modernness that had the force of moral clarity at the time, even if it wasn't driven by a moral system in the conventional sense."[65]

Writer Paul Makovsky in the April 2002 issue of *Metropolis* magazine stated, "John Entenza's grand experiment in residential architecture created a model for mid-century living and an early blueprint for sustainable design."[66]

In 1977, on the back cover of the second edition of Esther McCoy's book on the Case Study houses, architects Charles W. Moore and Cesar Pelli commented on the program. Said Moore, "The Case Study program remains the quintessential architectural act in Southern California."[67] Pelli called the program "...a successful experiment...a very Los Angeles, pragmatic reinterpretation of the universal principles and ideals of the modern movement for a specific time and place."[68]

Said Smith, "When it ended in 1966, upon the cessation of publication of *Arts & Architecture*, the program had attained an iconic status among architects worldwide."[69]

Case Study House program built residences, highlights

Full descriptions of the built Case Study Houses appearing eligible for listing in the National Register of Historic Places are attached on National Register Registration Forms (NPS 10-900). However, only abbreviated significance statements are provided in the individual forms as this cover document (NPS 10-900-b) provides the full historic context of the program.

The following paragraphs are highlights of these houses in support of the historic context of the Case Study House program. Unbuilt houses are not covered here, although a number of the unbuilt houses are discussed above as they relate to the broad context of the program. In addition, the houses that had the greatest overall impact have been discussed above.[70]

A note on chronology

In 1977 Esther McCoy attempted to explain the unusual and inconsistent numbering system that evolved during the 21 years of the program. She said that the delays and abandoned projects early in the program resulted in the chronology changes. Three numbers assigned to Rodney Walker houses from the 1940s, Case Study Houses #16, #17, #18, were reassigned to three Craig Ellwood houses

[64] Kevin Starr, "The Case Study House Program and the Impending Future: Some Regional Considerations." An essay in the exhibition catalogue Blueprints for Modern Living: *History and Legacy of the Case Study Houses*, Exhibition organized by Elizabeth A.T. Smith for the Museum of Contemporary Art, Los Angeles. Cambridge: The MIT Press, 1989, p. 131.
[65] Chase, p. 5.
[66] Paul Makovsky, "Making a Case," *Metropolis*, April 2002, page 99.
[67] Charles W. Moore quoted in Esther McCoy's *Case Study Houses 1945-1962*. Los Angeles: Hennessey & Ingalls, Inc., 1977. Outside back cover.
[68] Cesar Pelli quoted in Esther McCoy's *Case Study Houses 1945-1962*. Los Angeles: Hennessey & Ingalls, Inc., 1977. Outside back cover.
[69] Smith, *Case Study Houses*, p. 9.
[70] These houses include CSH #8 (Eames House), #9 (Entenza House), #20 (Bass House), #21 and #22 by Pierre Koenig.

from the 1950s. Neutra's CSH #20 from 1948 reappeared as CSH #20 by Buff, Straub and Hensman in 1958. The original unexecuted CSH #21 by Neutra in 1947 became Koenig's CSH #21 in 1958. J.R. Davidson's CSH #1 and #11 were transposed when #1 was abandoned and #11 was the first Case Study House to be completed and opened to the public. Starting in 1950 the houses were to be assigned a year rather than a number (hence, Soriano's CSH 1950), but continuing delays made this policy impossible to maintain as well.

Case Study House #1, 1945-1948
10152 Toluca Lake Avenue, North Hollywood, Julius Ralph Davidson
The two-story house originally designed and published in *Arts & Architecture* in 1945 was not built as planned. On a different site, the actual house, constructed in 1948, was a compact one-story residence of wood frame construction. Built on a concrete slab, the house incorporated aluminum siding, plywood, and asphalt tile flooring.

Case Study House #2, 1945-1947
857 Chapea Road, Chapman Woods, Arcadia, Sumner Spaulding and John Rex
Like Case Study House #1, this house underwent significant changes from the original plan to actual construction. Set on a one-acre site of citrus trees in the city of Arcadia in 1947, the house was designed with a broad, flat roof, deep overhangs, and extensive glazing. Interior flooring was black asphalt. The most distinctive feature was an undulating brick wall alongside the carport and entrance area.

Case Study House #3, 1945-1949
13187 Chalon Road, Los Angeles, William W. Wurster and Theodore Bernardi
Although located on a different site than originally conceived, the actual built house constructed in Mandeville Canyon of Los Angeles is very similar to the published plans. The house focuses "on issues of space, flexibility, and low cost."[71] Instead of a living room, the house incorporates a "living garden" – fully enclosed garden area intended to be the center of the family's social life. Other features include an indoor workroom, extensive glazing, carport, and minimal built-in furniture (to allow the owners more flexibility in decorating). The architects specified a color scheme based on local native flora surrounding the site.

Case Study House #7, 1945-48
6236 North Deerfield, San Gabriel, Thornton Abell
Another example of a house altered significantly from its original published plan in 1945. A centralized activity zone was situated between the living room and kitchen, which could be extended into one large open area as needed. The outdoor spaces were also zoned for different uses based on the layout of terraces and patios. Lightweight concrete block and plywood are the primary building materials. The roof was covered in Pioneer-Flinkote supplied by the company with whom the client was employed at the time.

Case Study House #8, Eames House, 1945-1949
203 Chautauqua Boulevard, Pacific Palisades, Charles and Ray Eames
The house differs substantially from the original plans drawn by Charles Eames and Eero Saarinen in 1945. By 1949, when the house was constructed, Charles and Ray Eames together decided to reorient

[71] Smith, *Case Study Houses,* p. 42.

the house parallel to the hillside above and perpendicular to the original footprint. The final design consists of two unattached pavilions, one for living and the other a studio/workshop. Both are double-height rectangular, modular buildings on concrete slabs. The buildings are built entirely of industrial materials, mostly prefabricated, that could be purchased by any contractor. Materials include steel, glass, asbestos, and Cemesto board. Ray Eames design touches include a variety of textures and colors that add the touch of whimsy so often noted by critics. The house was filled with furnishings and personal objects designed by the Eames' or collected during their world travels.

Case Study House #9, Entenza House, 1945-1949
205 Chautauqua Boulevard, Pacific Palisades, Charles Eames and Eero Saarinen
Constructed adjacent to the Eames House, the Entenza House, designed for *Arts & Architecture* publisher/editor John Entenza, was built according to the original plans published in 1945. Entenza frequently entertained, so the house consists of mostly public and very little private space. A large, sunken living room with a built-in seating area facilitates conversation. The steel-framed house is infilled with plastered and wood-paneled surfaces in a modular plan. The west, ocean-facing façade is entirely glazed.

Case Study House #10, 1945-1947
711 San Rafael Avenue, Pasadena, Kemper Nomland and Kemper Nomland, Jr.
Added to the Case Study program after completion (in order to maintain continuity in the program given the number of unbuilt houses up to that point), the house fulfilled many of the Case Study goals including economy of materials, simplicity of construction, and low cost. The house is of wood post and beam construction with extensive glazing on a three-level concrete slab. A single shed roof covers all three levels, following the slope of the hillside on which the house was constructed. The upper level was the garage and studio, the middle level contained the bedrooms, and on the bottom level were located the kitchen and living room. Deep overhangs shaded the rear glass walls. A large sliding glass partition allowed the dining area to open to the outdoors. Built by a father and son design team, the house was one of the better examples of a residence designed completely in keeping with its site.

Case Study House #11, 1945-1946
540 South Barrington Avenue, Los Angeles, Julius Ralph Davidson
Although designated CSH #11, this residence, built for the advertising manager of *Arts & Architecture* magazine, was actually the first house constructed in the program. It was subsequently toured by 55,000 people when opened to the public for inspection. Facing the problems of postwar materials shortages, the small (1100 square foot) house was constructed of wood frame with glass walls on a concrete slab. It did not utilize the more experimental materials of steel and aluminum originally envisioned by the architect. The flat-roofed house "succeeded as a compact, economical design, the efficient plan of which was especially noteworthy."[72]

Case Study House #15, 1947
4755 Lasheart Drive, La Canada Flintridge, Julius Ralph Davidson.
This house is nearly identical to Davidson's CSH #11 in size and plan. The 1300 square foot, rectangular house is of wood frame construction with plaster and fir siding. Several more Case Study houses were planned for adjacent lots, none of which were built. Davidson, known for efficient interior planning, used glass walls facing the rear to extend the interior room spaces, giving the illusion of much

[72] Smith, *Case Study Houses*, p. 138.

larger house. The house was built by a contractor as a speculative venture and, surprisingly, was the only single-family house of the program to attain the goal of replicability.

Case Study House #16, 1946-1947
9945 Beverly Grove Drive, Beverly Hills, Rodney Walker
This was the architect's own home, and another residence added to the program as it was being constructed. Located on a sloping site in Beverly Hills, the house is multi-leveled of modular wood construction with built-in flexibility in public and private areas. The house is unusual for the program, however, in its size (2000 square feet), skylit entrance hall, sitting room, and servants' quarters.

Case Study House #17, 1947
7861 Woodrow Wilson Drive, Los Angeles, Rodney Walker
This 1560 square foot rectangular house was constructed on a raised pad at the foot of a hill. The public areas are located at the front of the house with the bedrooms and baths positioned at the rear. The extensive use of glass walls extends the interior to the exterior covered terrace, increasing the apparent size of the house.

Case Study House #18, West House, 1947-1948
199 Chautauqua Boulevard, Pacific Palisades, Rodney Walker
This house is located in what soon became a Chautauqua colony of Case Study houses. Walker oriented the public areas to take full advantage of tremendous ocean views by employing floor to ceiling glass panels. Comparable in construction and finish to his own home (CSH #16), the West House is built with wood framing set at three-foot intervals, which also assisted in economy and efficiency in the building process. Notable in the living room is the strong presence of the large copper-sheathed brick fireplace and the raised roof with clerestory windows.

Case Study House #20, Bailey House, 1947-1948
219 Chautauqua Boulevard, Pacific Palisades, Richard Neutra
The clients, Dr. and Mrs. Bailey, were a young couple who requested a modest house of Richard Neutra, the most prominent modern architect yet associated with the program. Built in the Chautauqua colony of Case Study Houses, the design is consistent with the work that Neutra was doing in the 1940s. It presents a subdued façade to the street, opening up at the rear that faces the ocean. Sliding glass doors increase the feeling of spaciousness. The Baileys envisioned a growing family and resources; indeed, Neutra incorporated three expansions to the house during his lifetime. Today (2003) the expansions appear totally in keeping with the house and integral to its design.

Case Study House 1950, 1950
1080 Ravoli Drive, Pacific Palisades, Raphael Soriano
Although rigorous in its use of modular steel frame construction, the interiors are softened by Soriano's incorporation of brick, stucco, wood paneling and carpeting. Given the prominence of the Case Study House program, it seems that Soriano wished to present a more traditional interior in contrast with the steel and glass of the exterior to the anticipated hordes of visitors. The steel framing elements are 10 feet by 20 feet, allowing for wide walls of fixed and sliding glass doors along the rear elevation. From the street, however, the house appears closed and very private. An outdoor terrace appears to be a continuation of the public areas through the use of the extension of the steel roof around its perimeter and a brick wall shared with the living room.

Case Study House #16, 1952-1953
1811 Bel Air Road, Bel Air, Craig Ellwood
This is the first of three residences that Ellwood designed for the program. A highly rational design, CSH #16 was built of steel, glass, and concrete, "yet [these materials] were used with an extreme elegance and sensitivity."[73] Ellwood was trained as an engineer and had a passion for using industrial materials and construction techniques in residential architecture. The interior walls are floating panels inset between steel posts. Translucent glass panels screen the house from the street. Frameless floor to ceiling glass walls in the living room merge with floors, ceilings, and a massive natural rock fireplace that extends through the glass to the covered patio. On the opposite side of the fireplace is an exterior barbeque with rotisserie. The deep overhangs shelter the house from the strong sunlight. For the clients' small children, Ellwood installed a series of climbing bars into the red brick exterior wall next to the play area.

Case Study House #17, 1954-1955
9554 Hidden Valley Road, Beverly Hills, Craig Ellwood
Although the largest and most sumptuous house yet constructed in the program at that time, and one of Ellwood's finest designs, the house has been substantially altered such that all of its character defining features have been lost. In the early 1960s the exterior of the house was renovated in the Regency style "that rendered the design unrecognizable as a Case Study house."[74] For this reason, the house no longer qualifies for registration.

Case Study House #18, Fields House, 1956-1958
1129 Miradero Road, Beverly Hills, Craig Ellwood
This was the final residence that Ellwood designed for the Case Study House program and was noteworthy for its effective use of a prefabricated steel frame and wall panel system. The simple rectangular plan positioned the private rooms on one side separated by the living room and music room, with the kitchen, dining room and entrance on the opposite end. An elaborate, colorful mosaic covered the exterior wall adjacent to the swimming pool. Unfortunately, like CSH #17, "this house was also transformed beyond recognition by later owners."[75] With the application of a Regency façade, the essential character-defining features of the house have been lost. The residence, therefore, no longer qualifies for registration.

Case Study House #20, Bass House, 1958
2275 North Santa Rosa Avenue, Altadena, Buff, Straub & Hensman
In a departure from the use of steel frame construction, the architects chose wood instead. Both the location of the house in the Pasadena area and the design preferences of the owners, Saul Bass, a noted graphic artist, and his biochemist wife, resulted in the introduction of sculptural forms in the residence. A barrel vaulted ceiling and a circular brick fireplace, plus the incorporation of a mature tree that penetrates the deep overhang, reinforce this idea.

Case Study House #21, 1958
9038 Wonderland Park Avenue, Los Angeles, Pierre Koenig
This was Pierre Koenig's first Case Study house and an experiment in on-site assembly and the careful

[73] Smith, *Case Study Houses*, p. 216.
[74] Ibid, p. 232.
[75] Ibid, p. 242.

detailing of the steel frame. This highly rational design employs no overhangs, relying on screens over the glass walls to reduce sunlight and heat. The small, square house has a central utility core of kitchen and bathrooms that divide the public and private areas of the house. The infill walls of the steel frame are glass or gypsum with a ceiling of corrugated steel. The house is mostly surrounded by reflecting ponds where water is pumped onto the roof and returned to the ponds in fountain-like streams. Red brick framed in steel is used for the entrance pad, office patio, and walkway between the carport and kitchen. Pebble gravel, contained within concrete borders, adjoins the reflecting ponds on most sides. The house was completely restored, including reproductions of Koenig's custom-designed furniture, in the mid-1990s.

Case Study House #22, Stahl House, 1959-1960
1635 Woods Drive, Los Angeles, Pierre Koenig
This is perhaps the most iconic house constructed in the Case Study House program, and "among the most radical and reductive,"[76] according to Elizabeth A.T. Smith. The L-shaped house consists almost entirely of steel and glass set on a concrete pad, with a rectangular swimming pool occupying the space within the L. Twenty foot wide modules allow for large expanses of glass to face the swimming pool. Situated atop a promontory overlooking Los Angeles, the living room cantilevers over a dramatic precipice. Said Smith, "Pierre Koenig succeeded in maximizing the potential of steel to enclose space in this extraordinarily minimal design."[77] The two bedrooms occupy one wing of the house with the master bathroom tucked into the inside corner of the L behind the kitchen. The kitchen, dining room, and living room are surrounded by glass with the appliances "floating" on steel legs and a freestanding fireplace centering the living room. Deep overhangs shelter the interiors from the harshest sunlight. The house has been continuously owned and maintained by the original clients.

Case Study House #23, Triad (Houses A, B, C), 1959-1960
Rue de Anne, La Jolla, Killingsworth, Brady & Smith
These three adjacent single-family residences were intended to be the pilot project for a large tract of houses in La Jolla, but only this Triad was ever built. The houses are designed in relation to one another, but each differs in floor plan, landscaping, and treatment of exterior sheathing. Common materials employed include wood framing, concrete slab foundations, infill panel walls, and identical cabinetry, kitchen appliances, and fixtures. House A, the largest of the Triad, features a redwood clad exterior and a concrete step entry path across a reflecting pond. House B is notable for the white-painted posts and beams and wood-framed floor to ceiling glass panels but has, unfortunately, been detrimentally altered. House C incorporates redwood siding and translucent glass screening in its design. Surprisingly, in contrast to the previous Case Study houses, the Triad divided interior spaces into family/dining areas and a more formal living room.

Case Study House #25, Frank House, 1962
82 Rivo Alto Canal, Long Beach, Killingsworth, Brady, Smith & Associates
This two-story rectangular residence was designed for Edward Frank, owner of modern furnishings retailer Frank Brothers. Located along a canal of the Naples section of Long Beach, the house is a tasteful statement of refined modernity. The entry path of stepping-stones over a reflecting pond leads to a narrow 17 foot tall entrance door. The full height interior courtyard is shaded by a lath ceiling and bordered on two sides by a continuation of the reflecting pond from outside. The living and dining

[76] Smith, *Case Study Houses*, p. 300.
[77] Ibid.

rooms on the ground floor, and the bedroom and study above, look through glass walls to the courtyard. "Framed in wood with smoothly plastered surfaces, the house projects an air of opulence, drama, and relaxed elegance,"[78] said Smith.

Case Study House #26, Harrison House, 1962-1963
San Marino Drive, San Rafael, Beverley Thorne
This large, four bedroom, two bathroom house was constructed on a sloping site in San Rafael in Northern California. Sponsored by Bethlehem Steel Corporation, the house is of steel-frame construction supported by a series of concrete caissons. The carport is accessed on the upper level with the entrance to the house reached via descending steps. The wide, rectangular house is divided into 10 foot modules with a full-width balcony cantilevered over the slope. All major rooms of the house, except for the kitchen, breakfast room, and foyer, are along the rear of the house and feature floor to ceiling sliding glass doors for access to the balcony. A deep overhang supported by steel beams supports the balcony roof. The architect designed a possible 1400 square foot expansion to be located in the open cavity beneath the house, which was never built.

Case Study House #28, 1965-1966
91 Inverness Road, Thousand Oaks, Buff & Hensman
This was the last single-family house built under the auspices of the Case Study program. At 5000 square feet, it is also among the largest. Although of steel frame construction, the house is sheathed in face brick due to the building's sponsorship by the Pacific Clay Products Company. In fact, an entire tract of houses in Thousand Oaks by the Janss Development Company employed face brick in their design. The architects temper the heaviness of the brick through the extensive use of glass walls and a large, square open central courtyard, containing a swimming pool, to which most of the rooms flow.

Case Study Apartments #1, 1963-1964
4402 28th Street, Phoenix, Arizona, Alfred N. Beadle and Alan A. Dailey[79]
This three-unit apartment complex was the first successful attempt in the Case Study program of building multiple-family housing – and which was also fully replicable. Constructed in Phoenix, Arizona, this was to be the prototype for a total of 80 units; unfortunately only the initial three were built. "The project attempted to rethink the design of the conventional apartment,"[80] said Smith. Each of the one-bedroom units is 840 square feet and includes a living room, study and a private outdoor patio. The carport, storage, laundry, and central courtyard are communally shared and around which the three apartments are arranged. Materials familiar to the Case Study program included wood frame construction, plywood walls, floor to ceiling glass, and exterior walls of concrete block.

The Case Study House Program architects
All of the following biographies were taken verbatim from the reference book, *Case Study Houses: The Complete CSH Program 1945-1966*, by Elizabeth A.T. Smith, Taschen, 2002.

Thornton Montaigne Abell, 1906–1984
While he was still a student at the University of Michigan and the University of Southern California, Abell gained hands-on work experience with various architects, including the practice of Joseph J.

[78] Smith, *Case Study Houses*, p. 358.
[79] Not included in nomination because the property is located in Arizona, which is outside of the jurisdiction of the California State Historical Resources Commission.
[80] Smith, *Case Study Houses*, p. 410.

Kucera in Pasadena. Before becoming independent in 1944, he was employed from 1930 to 1942 at Marsh, Smith and Powell in Los Angeles. The concrete-block single-story Case Study #7 in San Gabriel, California (1945-48), with its full-length glazing, has a high wooden fence to shelter it from the gaze of passers-by. A distinctive feature of this bungalow is the skylight above an interior garden. Other works by Abell include his own home in Santa Monica Canyon (1937), a model house for the Southern California Construction Industry and Home Show in Los Angeles (1952), his office in Los Angeles (1954), and the Siskin House in Los Angeles (1966). Abell taught at the Chouinard Art Institute in Los Angeles.

Theodore C. Bernardi, 1903–1990
Bernardi, who was born in Yugoslavia, studied as the University of California in Berkeley. He worked for John Galen Howard and John Reid, Jr., and from 1934 with William Wilson Wurster. After working independently for two years he went into partnership in 1945 with Wurster and Don Emmons in San Francisco. From 1954 to 1971, Bernardi designed Case Study House #3 in West Los Angeles (1945-49) in which the central element of the H-shaped layout is a sheltered terrace, and which also features a kitchen with adjoining utility room. Other projects by their office included the California State Printing Plant in Sacramento (1954) and the Strawberry Canyon Recreation Facilities of the University of California in Berkeley (1961).

Conrad Buff III, 1926-1988
Buff studied at the School of Architecture of the University of Southern California. He worked in partnership with Donald C. Hensman from 1947, and from 1956 to 1961 they were joined by Calvin Straub. Between 1952 and 1962, Buff taught at the faculty of design at the University of Southern California. The two Case Study Houses designed by their firm differ from the earlier, simple and clear-cut Case Study Houses by other architects. Case Study House #20 (Bass House) in Altadena (1958) has a round fireplace, oval pool and vaulted ceiling structure contrasting with the angular forms of the bungalow. After Straub left, Buff and Hensman designed Case Study House #28 in Thousand Oaks (1965-66) with five bedrooms grouped around a square courtyard with a pool, using brick as the predominant material for the load-bearing walls and pillars. Other works include the Green Oaks Medical Center in Arcadia (1966) and the McGill Corporation Office Building in El Monte (1968).

Julius Ralph Davidson, 1889-1977
Born in Berlin, Davidson initially worked as a draughtsman in his home city. For the London office of architect Frank Stuart Murray, he worked on designing interiors for ships. In 1923 he moved to Los Angeles, where he designed furniture and lamps for hotels and also created film sets. His first buildings were created in 1936, among the Herbert Stothart House in Santa Monica. For the Case Study House program, he developed a plan which was built as #11 in West Los Angeles (1945-46) and then in La Canada (1947) as #15. The original plans for a two-story Case Study House #1 were never realized, and the resulting one-story building in North Hollywood (1945-48) was not included in the Case Study House program. A number of one-family homes and apartment buildings followed, for which he placed considerable value on a tasteful and functional interior featuring built-in fittings and practical storage spaces.

Charles Eames, 1907-1978
Having attended the Washington University School of Architecture in St. Louis from 1924 to 1926, Eames founded his first firm in 1930. From 1937 he studied and taught at Cranbrook Academy of Art in Michigan, where he met Eero and Eliel Saarinen and his future wife, Ray (1912-1988). In 1940, in

collaboration with Eero Saarinen, he designed an award-winning plywood chair. Later, Charles and Ray Eames, who married in 1941 and moved to Southern California, would design many items in plywood. They worked closely as architects, exhibition organizers, film producers and furniture designers, and founded the Plyformed Products Company. Among their most famous furniture designs are the 1956 Lounge Chair, and the 1958 aluminum groups of chairs. In the field of architecture, too, they were highly innovative. The first steel-frame building in the Case Study House program was their own home, Case Study House #8, in Pacific Palisades (1945-49). It consists of a pair of two-story blocks with a courtyard between them, and façades of prefabricated elements filled with colored panels and glass panes of different sizes. By contrast, Case Study House #9, designed by Eames and Eero Saarinen, in Pacific Palisades (1945-49) does not actually reveal the structure, but conceals it behind wooden cladding. Probably his most famous work, however, is the film *Powers of Ten* (1977) which addresses the relative size of things in the universe.

Craig Ellwood, 1922-1992
Ellwood gained hands-on experience in the firm of a building contractor who worked for Neutra and Soriano, and in 1948 he founded his own architectural firm in Los Angeles. The theoretical side came later, when he took evening classes in civil engineering at the University of Southern California in Los Angeles between 1949 and 1954. He was greatly influenced by Mies van der Rohe whose consummate handling of space was not based solely on details. Ellwood skillfully combined modern building materials such as plastic and steel, and also used the latter for his unclad frame structures. In 1951 he built the Hale House in Beverly Hills a single-story flat-roofed building set on long, slender pillars so that it hovered far above the sloping ground below, its steel frame filled with glass and wood. Ellwood also designed the Case Study Houses #16, #17, and #18 in Los Angeles (1952-58). Variations in the translucency of the walls is a typical feature of his architecture that is particularly in evidence in the alternating milk-glass and transparent glass walls of House #16. For House #18 he used blue wire-reinforced glass to filter the sunshine. The Rosen House in Los Angeles is a flat, square building on low steel pillars around a square inner courtyard. An unusual design by Ellwood, albeit one that was never actually built, is his Bridge House (1968) spanning a river.

Frederick Earl Emmons, 1907-1999
After studying architecture at Cornell University in Ithaca, New York, Emmons worked for a number of architects, including McKim, Mead, and White in New York and William Wilson Wurster in San Francisco. Between 1946 and 1950, he operated his own firm and built houses and schools. In 1951, together with A. Quincy Jones, he founded a practice in Los Angeles, where he worked until 1969. Their buildings included the library of the University of California in Los Angeles (1964), and the Carillon Tower at Riverside (1966). They were also involved in planning the new campus of California State University in Dominguez Hills from 1966.

Donald Charles Hensman, 1924-2003
While still a student at the School of Architecture of the University of Southern California, Hensman worked for Langdon and Wilson in Los Angeles. From 1947 he had an office with Conrad Buff, and from 1956 to 1961 they were joined by Calvin Straub. It was during this period that the design for Case Study House #20 was drawn up, featuring wood as an important building material. The prefabricated elements of the roof structure were curved plywood panels. Remarkably, Case Study House #28 was built of brick, which, at the time, was a material that tended to be disparaged. In the 1950s, Hensman taught at the University of Southern California.

Archibald Quincy Jones, 1913-1979
Jones studied architecture from 1931 to 1936 at the University of Washington in Seattle. Before establishing his own practice in 1945, he gained experience working for two firms of architects in Los Angeles. He worked in partnership with Frederick E. Emmons from 1950 to 1969. Apart from designing individual buildings, he was particularly interested in innovative housing estates with community facilities and unconventional street networks. Jones and Emmons were co-authors of the book *Builders' Homes for Better Living* published in 1957. When Jones' one-family home in San Diego was awarded the accolade House of the Year in 1950, it caught the attention of progressive building contractor Joseph Eichler, who commissioned Jones and Emmons, along with other architectural firms, to plan his housing estates. Between 1951 and 1964, Jones and Emmons were involved in the building of several Eichler Homes throughout California. These steel frame houses have glass walls opening onto quiet inner courtyards. The open-plan interiors are divided by partitions and curtains, and the buildings are typically flat-roofed, sometimes with a glazed gable end. The extensively glazed steel built Jones House in Los Angeles (1954) was created during this period with a flat metal roof. The green inner courtyard brings the world of nature into the built environment. Case Study House #24 in San Fernando Valley (1961), unfortunately never built, is set into the earth, with earth mounds and tress providing shelter and privacy. Jones' extensive oeuvre includes St. Michael and All Angels Church in Studio City, California (1962), with its cleverly constructed timber roof providing plenty of natural lighting, the Mandeville Center for the Arts (1968-75), and the Annenberg School of Communications (972-76) at the University of Southern California. From the façade of the Warner Bros. Records Inc. of Burbank, California (1971-75), a cantilevered structure with a slanted front of glass juts out over the entrance.

Edward Killingsworth, 1917-2004
Killingsworth studied at the School of Architecture of the University of Southern California, graduating in 1940. Between 1945 and 1953 he worked in partnership with Kenneth S. Wing in Long Beach, and in 1953 the firm of Killingsworth, Brady & Smith was founded with Jules Brady and Waugh Smith, which was renamed Killingsworth, Brady & Associates in 1963. Since 1977, the firm has been known as Killingsworth, Stricker, Lindgren, Wilson & Associates. A clear, straightforward geometry predominates in most of the buildings, with richly varied interior designs. Light, shade and reflective water basins play a major role. For the Case Study House program, he created a group of three houses in La Jolla, California (1959-60), each with its own individual character, but linked to the others by the use of the same materials and repetition of certain details. The two-story Case Study House #25 at Long Beach, California (1962), has an entrance door that runs the full height of the building, opening onto an interior courtyard covered with a wooden lath ceiling. From here, there is a view through the floor-to-ceiling glazing into the living quarters that open towards the courtyard. The stringent block of the Kahala Hilton Hotel in Honolulu, Hawaii (1964), appears delicate because the concrete framework juts into the space beyond the building to support the extensive covered walkway on the roof. Hotel buildings soon became a focal point of the firm's work. One of the most important projects, in collaboration with Sam Hurst, was the School of Architecture of the University of Southern California (1973). For 38 years, Killingsworth was in charge of planning in all building projects of the California State University at Long Beach.

Pierre Koenig, 1925-2004
Pierre Koenig studied architecture at the University of Southern California from 1948 to 1952. While he was still a student, he founded his own office and built his first glass and steel house, the Koenig House #1 in Glendale, California (1950). He taught at the University of Southern California beginning in 1964.

Koenig used mainly prefabricated materials for his steel frame buildings with a clear and simple formal syntax. The two houses he built for the Case Study House program have been widely published: Case Study House #21 in Los Angeles (1958) has a ground-level single-story steel frame with corrugated metal panels on the entrance side and glass sliding doors at the rear. From a water basin running round the house, water is pumped up to the roof to improve the overall ambient climate. The interior is very open. The kitchen worktop forms a freestanding installation in the living area, and even the car in the garage is constantly visible. Case Study House #22 (1959-60) in Hollywood, California, is built on an L-shaped plan with a cantilevered steel roof. Further buildings include his own Koenig House #2 in Brentwood, California (1985), and the KYOR radio station in Blythe, California (1958).

Richard Joseph Neutra, 1892-1970
Neutra attended the Technische Hochschule in Vienna from 1911 to 1917 and, at the same time, the Architectural School of Aldolf Loos. During the first few years after the war he worked as a landscape gardener in Zurich. From 1921, he worked at the Municipal Construction Office in Luckenwalde, where he met Erich Mendelsohn. He moved to Berlin with Mendelsohn and became his assistant in his office there. In 1923, Neutra went to the USA where he worked first with William Holabird and Martin Roche in Chicago, and later with Frank Lloyd Wright in Taliesen. In Los Angeles, he worked with Rudolf Schindler on such projects as the competition for the Palace of Nations in Geneva (1927). In 1926, he established his own practice and began with the Jardinette Apartment House in Los Angeles (1926-27), a reinforced concrete construction with window bands. He also designed pre-fabricated houses, which he called “One Plus Two,” and worked on a project for a future city “Rush City Reformed.” In 1927, he published his book *Wie baut Amerika* and was given the commission for the Lovell House in Los Angeles (1927-29). The steel skeleton which he designed for it could be erected in the short space of just 40 hours. From 1931 to 1933, he built his own house, the Van der Leeuw Research House. In the 1930s, he experimented with new materials and constructions. Thus in 1936, he built a plywood model house, and also Josef von Sternberg’s house in the San Fernando Valley in California, with its outer surfaces of metal and a pool of water surrounding it. It has since been destroyed. Water was to remain an important design element in Neutra’s buildings. During the Second World War, when no modern materials were available, Neutra built the Nesbitt House in Los Angeles and Channel Heights Estate in San Pedro (1942) using redwood, brick and glass. Significant achievements by Neutra in the 1940s are the Kaufmann House (Desert House) in Palm Springs (1946-47), the Tremaine House in Santa Barbara (1947-48), and Holiday House Motel in Malibu. From 1949 to 1959, he collaborated with Robert E. Alexander on larger public projects like churches, schools and shops: the elementary school on Kester Avenue in Los Angeles (1953), the Miramar Chapel in La Jolla (1957), and the building for the Ferro Chemical Company in Cleveland, Ohio (1957), with cantilevered roof and what became characteristic for Neutra, the thin supports. His ideas for architecture with a human face were set forth in his book *Survival through Design* (1954).

Kemper Nomland, 1892-1976
Between completing his architectural studies at Columbia University in New York in 1916 and setting up as an independent architect in Los Angeles in 1928, Nomland worked for a number of firms, including Marston, Van Pelt, and Maybury in Pasadena. Between 1945 and 1968, he worked in partnership with his son Kemper Nomland, Jr. Together they designed Case Study House #10 (1945-47) in Pasadena for their own family. Because of the sloping site, this extensively glazed plywood house has several levels. Their oeuvre includes a number of schools in Los Angeles (1945-68), the Security First National Bank in the City of Commerce (1958) and the Edendale Apartments in Los Angeles (1968).

Kemper Nomland, Jr., 1919-2009
After studying at the University of Southern California, Nomland, Jr., worked in the office of Albert C. Martin in Los Angeles. From 1945 to 1968 he worked in partnership with his father Kemper Nomland. He supplied the firm of Robert Kliegman between 1970 and 1981 with designs for medical buildings in the City of Hope in Duarte, and the Neutron Therapy Building of the University of California in Los Angeles. While working for Miralles Associates, Inc. in Altadena, he designed an extension for Bell High School in Los Angeles and a new campus of the Medical Magnet High School in Los Angeles.

Ralph Rapson, 1914-2008
Rapson studied at the University of Michigan and Cranbrook Academy of Art in Bloomfield Hills, Michigan. After working with Eero Saarinen, he established his own practice in Chicago in 1942. From 1946 to 1954, he taught at the School of Architecture in Cambridge, Massachusetts, and at the same time worked on US Embassy buildings in Europe. He then practiced in Minneapolis and became Dean of the School of Architecture and Landscape Architecture at the University of Minnesota. His prolific oeuvre includes the Pillsbury House in Wayzata, Minnesota (1963), the Tyrone Guthrie Trust Stage Theater in Minneapolis (1963), and the Humanities and Fine Arts Center at the University of Minnesota in Morris (1973). Unbuilt projects include his design for Case Study House #4 (1945), accommodation under slightly pitched roofs flanking either side of a glazed garden. The design also envisaged flexible partitioning of the rooms with fixed walls for the bathrooms only.

John Leon Rex, 1909-2003
Rex studied at the University of Southern California and the Art Center College in Los Angeles. During the war he worked for the US Navy, in charge of building hospitals, industrial structures and apartment buildings. He was involved with a number of different architectural practices, including Spaulding, Rex and DeSwarte (1945-52), Honnold and Rex from 1953, renamed Honnold, Reibsamen and Rex in 1965, and Reibsamen, Nickels and Rex, Architects from 1977. He taught at the University of Southern California and the University of California, Los Angeles. Together with Sumner Spaulding, Rex built Case Study House #2 in Los Angeles (1945-47). Other projects in his career include the Harold Anderson Residence (1951) and Ekdale Residence (1952) in Palos Verdes, the Los Angeles Federal Tower in Hollywood (1970), and various buildings for the University of California. He was also involved, along with other architects, in creating the Los Angeles County Hall of Records (1962) by Richard Neutra.

Eero Saarienen, 1910-1961
Born in Finland, Saarinen moved with his family to America in 1923. From 1929 to 1930 he studied sculpture at the Academie de las Grande Chaumiere in Paris and from 1930 to 1934 he studied architecture at Yale University, New Haven, Connecticut. He then worked at his father Eliel Saarinen's practice in Ann Arbor, Michigan and in 1941 became a partner with J. Robert Swanson. In 1950, he opened his own office in Bloomington Hills, Michigan under the name Eero Saarinen and Associates. He first achieved acclaim for his winning entry in the competition for the Jefferson National Expansion Memorial in St. Louis (1948), a project in which his father also participated. The 630-foot concrete building with its parabolic arch design was not built until 1963, two years after Saarinen's death. In this period Saarinen began to develop more expressive designs based on rectilinear, steel and glass cubic form, as in the General Motors Technical Center in Warren, Michigan (1949). For the Kresge Auditorium at the Massachusetts Institute of Technology in Cambridge (1953-55), he designed a concrete roof in the form of a spherical, domed triangle and, for the Instituted Chapel, a cylinder of brickwork. Among the most important projects executed by Saarinen's office are the David S. Ingalls

Ice Hockey Hall at Yale University (1953-59), the Trans World Airlines Terminal at John F. Kennedy Airport in New York (1956-62), the hovering pavilion roof at the Dulles International Airport in Washington D.C. (1958-62), and the John Deere and Company Administration Center in Moline, Illinois (1957-63). After Saarinen's death his colleagues John Dinkeloo and Kevin Roche ensured his unfinished projects were complete, and continued to keep the Hamden, Connecticut office in his name until 1966.

Whitney Rowland Smith, 1911-2002
After studying architecture at the University of Southern California, Smith worked for various offices from 1934, including the firm of Harwell Hamilton Harris. In 1941 he became independent and in 1946 he went into partnership with Wayne R. Williams until 1973. His oeuvre includes the Mutual Housing Association community development designed in collaboration with A. Quincy Jones and E. Contini consisting of a large tract of modern houses in Brentwood, California (1946-50), various university facilities - among them buildings for Scripps College in Claremont (1959) and for the University of California, Los Angeles, and the Neighborhood Church in Pasadena (1972-73). His two Case Study designs remained unbuilt.

Raphael S. Soriano, 1907-1988
Soriano was born on Rhodes and immigrated to America in 1924. In 1934, he graduated in architecture from the University of Southern California. He worked for a while with Richard Neutra, before founding his own practice in Los Angeles in 1936. In 1953, he moved near San Francisco. Soriano built a number of steel frame bungalows with clear-cut forms. His projects include a Case Study House in Pacific Palisades, California (1950), with a rectangular ground plan and full-length glazing, as well as a house and studio for Julius Shulman in Los Angeles (1950). The steel frame is used extensively infilled with glass and the built-in cupboards are made of plywood panels with veneer. Some of the walls are covered in cork tiles. He also designed a prototype house for mass productions with a light steel frame, steel paneled roof, and sliding glass doors.

Sumner Spaulding, 1892-1952
Spaulding studied at the University of Michigan and the Massachusetts Institute of Technology in Cambridge. After World War I, he worked briefly as an architect before taking time out in 1921 to travel around Europe for several years. On his return in 1926, he built the Catalina Casino on Catalina Island near Los Angeles (1928) and Frary Hall at Pomona College in Claremont (1929). In the 1930s, he designed Los Angeles Airport Terminal. From 1945 onwards he worked in partnership with John Leon Rex and DeSwarte, and at the same time collaborated with Rex in designing Case Study House #2 in Los Angeles (1947). The distinctive feature of House #2 is its full-height brick wall breaking through the glazed entrance front of the flat-roofed bungalow. Spaulding taught at the University of Southern California and Scripps College in Claremont.

Calvin C. Straub, 1920-1998
After studying at the University of Southern California and serving in the Navy, Straub lectured at the University of Southern California from 1946 to 1961. From then until 1988, he held a professorship of Design at Arizona State University in Tempe. He worked for the firm of A.B. Gallion before entering into a partnership with Conrad Buff and Donald Hensman (1956-61), and was a member of Schoneburger, Straub, Florence, and Associates (1972-75). He also ran his own office in Arizona. Together with Buff and Hensman, Straub designed Case Study House #20 (Bass House) in Altadena (1958). He also built the Lawry Foods Administration Center in Los Angeles (1960) and the Frank Hall

Student Dining Facilities at Pomona College (1982). Apart from his work as an architect and lecturer, he has also published his writings: *Design Process and Communications* (1978) and *The Man-made Environment: an Introduction to World Architecture and Design* (1983).

Beverley David Thorne, 1924
Thorne graduated in architecture in 1950 from the University of California in Berkeley. He was then employed by David S. Johnson and spent several years in Europe before establishing his own practice in 1954. He frequently used steel frame structures for his buildings. Completed projects include the Nail House in Atherton, California (1954), the Barlett House in Fresno, California (1959), and the Dave Brubeck House in Wilton, Connecticut (1960). Thorne's Case Study House #26 in San Rafael, California (1962-63), is a steel skeleton structure, most of it free-standing on piers, which cantilevers out over the sloping site. The flat roof serves as a parking area.

Rodney Walker, 1910-1986
Walker studied at Pasadena City College and University of California, Los Angeles, and was later employed by Rudolf Schindler for a short time. After building several one-family homes (from 1937) in the Los Angeles area and his own house in Beverly Hills (1946-47), which was renamed Case Study House #16, Walker was invited to participate in the Case Study House program and went on to design Case Study House #17 (1947) and #18 (1947-48) in Pacific Palisades. Timber-built House #16, which differs in many ways from the other houses in the program, has a stairway in the spacious, light-flooded entrance area leading to a partly covered rooftop terrace with open fireplace. Case Study House #17 is more "typical" of the program with its rectangular ground plan, full length glazing, and cantilevered flat roof.

William Wilson Wurster, 1895-1973
Until 1919 Wurster studied architecture, and at times shipbuilding, at the University of California in Berkeley. From 1923 to 1926, he worked for the Delano and Aldrich office in New York, and then opened an office of his own in San Francisco. In 1945 and 1946, Theodore Bernardi and Don Emmons joined the practice as partners. From 1944 to 1950, Wurster was Dean of the School of Architecture and Planning at the Massachusetts Institute of Technology, and subsequently Dean of the Faculty of Architecture and of the Faculty of Environmental Design at the University of California in Berkeley (1950-63). His modern style of architecture accords with the Bay Region Style in suiting itself to the given features of the coastal region around San Francisco. Among the characteristic points are overhanging roofs and wooden frames. Wurster built the Gregory Farmhouse in Santa Cruz, California (1927-28), and the Clark Beach House in Aptos, California (1937). Together with Theodore Bernard he designed the Case Study House #3 in West Los Angeles, California (1945-49), a one-story house with a flat roof partially made of glass. The Bernardi House in Marin County, California (1951), is a two-floor wooden building with a generous use of glass and with balconies running the entire length of the façade. Another 1950s building is the Pope House in Madera, California (1958), featuring a pointed roof and built out of air-bricks for protection from the searing sun and heat. A pillared, roofed verandah runs around the entire house. Finally, the First Unitarian Church in Berkeley dates from 1962.

Conclusion

The Case Study House Program was a heroic effort by *Arts & Architecture* magazine to acquaint the general public with good design in many fields: architecture, interior design, furnishings, decorative arts, and landscape architecture. Over a 21-year period, the program attained local, national, and

international acclaim with its influence extending into the new century. Despite the fact that some of the original goals of the program were not achieved, the program allowed talented designers of the Modern Movement to create some of the greatest icons, and most widely published images, of the middle years of the 20th century. All of the completed residences of the Case Study House program that continue to meet registration requirements deserve the honor of inclusion in the National Register of Historic Places at the local level of significance under Criteria A and C.

F. Associated Property Types

Property Type: Single family residences of the Case Study House Program

The associated property type "Single family residences of the Case Study House Program" is comprised of two subtypes: wood-frame dwellings and steel-frame dwellings.

Wood-frame dwellings:
For the first four years of the Case Study House program, 1945-1948, all of the houses designed and built were of wood-frame construction. From 1949 and through the 1950s, wood-frame construction appeared sporadically with steel-frame construction predominating. Finally, in the 1960s, there was a fairly even mix of wood-frame and steel-frame buildings.

The wood-frame houses were all designed in the modern style characterized by flat roofs typically with deep overhangs, open floor plans, concrete slab foundations, extensive use of glass, and an orientation towards the rear garden area. The designs rejected applied ornamentation or historical references. Exterior cladding consisted of a variety of materials including wood, stucco, brick, natural stone, and concrete block. Interior walls and other surfaces were of drywall, plywood, wood veneers, natural stone, brick, and concrete block. Windows were a combination of transparent floor to ceiling glass, translucent glass, clerestories, and occasionally glass block. Window frames were of wood or steel and could be fixed, casement, awning type, or sliding. Most had fireplaces. Carports were attached.

The wood-frame dwellings were all single-family except for Case Study Apartment (CSA) #1 (1963-64), which was a triplex. They were built on a variety of sites, flat or sloping, in locations throughout Los Angeles County, in La Jolla near San Diego (CSH #23) and, in the case of CSA #1, in Phoenix, Arizona. Typically, their scale was modest for they were designed for a small family of average means according to the tenets of the Case Study House program.

Following the precepts of the Modern Movement, there was a maximum of flexibility designed into the houses with open floor plans where dining and living areas merged. Sliding wall partitions allowed rooms to expand or contract. Kitchens (often quite small) were not enclosed or segregated but integrated with other common areas. Much of the furniture was built-in. The wood-frame houses continued the tradition of modernity that progressive architects established before and during the Second World War.

Steel-frame dwellings:
Starting with the Eames House built in 1949, the steel-frame became the signature construction method that seemed to define the Case Study House program. The architects using steel were experimenting in the application of an industrial material, steel, to residential design. The goal was to create a prototypical, replicable house that could be mass-produced at minimal cost. As was discussed in Section E, these goals were generally not attained. Nonetheless, the steel-frame Case Study houses had a profound effect on the profession of architecture and in establishing the look of mid-century Modernism as seen by a wide audience.

The steel-frame houses were, like the wood-frame designs, modern. Like the others, they were characterized by flat roofs often with deep overhangs, open floor plans, extensive use of glass, an orientation towards the rear garden area, concrete slab foundations, and a rejection of applied

ornamentation or historical references.

Exteriors, however, did not require load-bearing walls and thus infill could be of an assortment of materials, principally flat or corrugated metal, plywood, stucco, brick, and natural stone. Like the wood-frame houses, interior walls and other surfaces were of drywall, plywood, gypsum, wood veneers, natural stone, or brick. Windows were a combination of transparent floor to ceiling glass, translucent glass, jalousies, and clerestories. Steel window frames could be fixed, casement, awning type, or sliding. Most residences had fireplaces and attached carports.

Steel-frame houses were erected quickly with prefabricated sections delivered and welded or bolted together on concrete slabs. The modular design of the steel houses also simplified construction. Pierre Koenig, in particular, built his steel houses around a central core where the kitchen and bathroom facilities were located. The houses had entire walls of glass typically located in the rear that faced patios, gardens, swimming pools, and views.

Floor plans were open. Accordion doors divided rooms in Ellwood's Case Study House #16. Interior walls often continued through glazing, symbolically extending the room to the outdoors.

The Eames House of 1949 was noteworthy, and unique among all of the Case Study Houses, in that its components were purchased primarily from industrial catalogs. Steel posts, frames, trusses, windows, roof, and walls were all readily available at reasonable cost. Filled with furniture of their own design, Ray Eames' artwork, and a myriad of rugs, art objects, masks, plants, toys, and an extensive collection of objects, the house defied the stereotype that modern houses were by definition sterile.

The steel houses were built on primarily flat sites throughout Los Angeles County, with Koenig's famous Case Study House #22 built on a pad atop the hills overlooking Los Angeles. By the mid to late 1950s, the scale of the Case Study houses had grown with the wealth of the clients. The Ellwood steel houses were built in Bel-Air and Beverly Hills and several had swimming pools.

Significance

The Historic Context associated with this multiple property submission is "Experimental Modern residential architecture of the Case Study House program in California: 1945–1966." The property type associated with this submission is "Single- and multiple-family residences of the Case Study program," and includes two subtypes: "wood-frame dwellings and steel-frame dwellings."

All of the built residences of the Case Study House program 1945-1966 meeting Property Type Registration Requirements of the multiple property submission appear to qualify for listing in the National Register under Criteria A and C at the local level of significance. All of the program's qualifying built residences are integral components of the Case Study House program. Yet, each individual residence also stands on its own as an exemplar of both the Case Study House program and of the architect's highest capabilities as a disciple of the Modern Movement in America.

Under Criterion A, qualifying Case Study residences are associated with a multi-year program of experimental housing utilizing a vast array of traditional and new construction methods, materials, floor plans, fixtures, finishes, furnishings, landscaping, and ways of living under the unifying banner of Modernism as interpreted by the editor of *Arts & Architecture* magazine. As has been shown, the

impact of the Case Study House program in the history of the built environment was profound and enduring. Young architects today continue to receive inspiration from the groundbreaking work of their predecessors associated with perhaps the greatest example of experimental housing ever attempted in America.

Under Criterion C, qualifying Case Study houses embody the distinctive characteristics of residential architecture associated with the Modern Movement in California, and the Case Study House program in particular. Whether of wood-frame or steel-frame construction, the houses share the modern qualities of flat roofs, deep overhangs, open floor plans, extensive use of glass, indoor/outdoor flow, and concrete slab foundations. The designs reject applied ornamentation or historical references. Many of the program's houses were built of modest size in keeping with the original tenets as presented in 1945. In addition, many of the Case Study House program residences were designed by master architects whose fame often commenced with their pioneering work within the program.

Considerations relating to the eligible properties of the Case Study House program that are less than 50 years of age (i.e. constructed after 1962):

Of the built residences of the Case Study House program that continue to meet registration requirements, two are less than 50 years of age (#26 of 1962-63; #28 of 1965-66).[81] As has been presented, The Case Study House Program and each of the program's built dwellings has been the subject of comprehensive scholarly research. Much of the program's reassessment stems from the 1989-90 exhibition and catalogue titled "Blueprints for Modern Living: History and Legacy of the Case Study houses" organized by the Los Angeles Museum of Contemporary Art and curated by Elizabeth A.T. Smith. The 2002, 440-page tome written by Ms. Smith and published by Taschen, further elaborates on the program and its enduring legacy.

These two residences that are less than 50 years of age are of exceptional importance as vital contributors to the Case Study House program as a whole. To achieve a full and complete understanding of the evolution and impact of the program from its inauguration in 1945 until its completion in 1966, all of the houses meeting registration requirements must be included in the multiple property nomination.

Registration Requirements

In order to qualify for registration individually under Criterion A, a building must be one of the single family residences constructed under the auspices of The Case Study House Program, 1945 – 1966, as published in *Arts & Architecture* magazine. The total includes the Triad, A, B and C, built as CSH #23 but counted as three individual houses for purposes of this nomination.

In addition, in order to qualify for registration individually under Criteria A and C, a residence must maintain enough physical integrity to be readily identifiable as a contributor to the program. To meet physical integrity requirements, the residence must possess a preponderance of original character-defining exterior features as documented by historic photographs and/or detailed plans when available. Such documentation generally exists for the constructed Case Study residences.

[81] Case Study houses #25 (Frank House) 1962; #26 (Harrison House) 1962-63; #28 1965-66. CSA #1 Triplex 1963-64 is located in Phoenix, Arizona and is not included in this nomination.

Original construction material should be evident or have been replaced in-kind in a manner consistent with the original design and materials. Character-defining features include original exterior sheathing, overhangs, roof slope, foundation, doors, and windows. Doors and windows should be original on the exposures visible from the public right of way, or if replaced or altered, should be compatible with the original design and materials.

Additions will not disqualify buildings unless they drastically alter the overall scale of the building, substantially modify the character defining features of the dwelling, or clearly violate the documented intention of the architect. The enclosure of carports, the filling in of reflecting ponds, the addition of perimeter walls for security or privacy, and modifications of the original landscaping will not disqualify buildings under Criterion C.

G. Geographical Data

Locations of properties associated with The Case Study House Program are as follows. See Continuation Sheet E-15 **A note on chronology** for an explanation of the unusual and inconsistent numbering system. A subset of this list, indicated in bold, is nominated concurrently with this Multiple Property Document Form. Additional properties may be submitted at a later time.

- **CSH #1: 10152 Toluca Lake Avenue, Los Angeles, Los Angeles County**
- CSH #2: 857 Chapea Road, Arcadia, Los Angeles County
- **CSH #3: 13187 Chalon Road, Los Angeles, Los Angeles County**
- CSH #7: 6236 North Deerfield, San Gabriel, Los Angeles County
- CSH #8: 203 Chautauqua Boulevard, Los Angeles, Los Angeles County
- **CSH #9: 205 Chautauqua Boulevard, Los Angeles, Los Angeles County**
- **CSH #10: 711 San Rafael Avenue, Pasadena, Los Angeles County**
- CSH #11: 540 South Barrington Avenue, Los Angeles, Los Angeles County
- CSH #15: 4755 Lasheart Drive, La Canada Flintridge, Los Angeles County
- CSH #16: 9945 Beverly Grove Drive, Beverly Hills, Los Angeles County
- CSH #17: 7861 Woodrow Wilson Drive, Los Angeles, Los Angeles County
- **CSH #18 199 Chautauqua Boulevard, Los Angeles, Los Angeles County**
- **CSH #20: 219 Chautauqua Boulevard, Los Angeles, Los Angeles County**
- CSH 1950: 1080 Ravoli Drive, Los Angeles, Los Angeles County
- **CSH #16: 1811 Bel Air Road, Los Angeles, Los Angeles County**
- CSH #20: 2275 North Santa Rosa Avenue, unincorporated Los Angeles County
- **CSH #21: 9038 Wonderland Park Avenue, Los Angeles, Los Angeles County**
- **CSH #22: 1635 Woods Drive, Los Angeles, Los Angeles County**
- **CSH #23 House A: 2342 Rue de Anne, San Diego, San Diego County**
- **CSH #23 House C: 2329 Rue de Anne, San Diego, San Diego County**
- CSH #25, 82 Rivo Alto Canal, Long Beach, Los Angeles County
- CSH #26: 177 San Marino Drive, San Rafael, Marin County
- **CSH #28: 91 Inverness Road, Thousand Oaks, Ventura County**

H. Summary of Identification and Evaluation Methods

The multiple property listing, "The Case Study House Program: 1945–1966," was based on sources spanning the years 1945 to 2003. Background information for the development of the historic context statement included a wide variety of source materials relating to the history of the Modern Movement in general, California Modernism more specifically, and the Case Study House program in particular. The Case Study House program was fully documented in *Arts & Architecture* magazine during the 21 years of sponsorship by the magazine. The text of every article published in *Arts & Architecture* relating to each Case Study house, built or unbuilt, was reprinted in the primary reference book, "Case Study Houses: The Complete CSH Program 1945–1966," by Elizabeth A.T. Smith and published by Taschen in 2002. The large 12 x 16 inch book includes many historic black and white and color photographs and some contemporary photographs. Color reproductions of sketches, renderings, and plans for each property are included in the book. In addition, biographies of all of the Case Study architects are listed.

Other references (noted in the bibliography) include Esther McCoy's 1962 book on the program, the 1989 catalogue by Elizabeth A.T. Smith who curated the Los Angeles Museum of Contemporary Art's exhibition on the subject, and numerous articles and critical essays published in the last several decades on the program and its legacy.

The nomination was researched and prepared by Peter Moruzzi, Architectural Historian, under the auspices of the Los Angeles Conservancy and was funded by a grant from Mr. Alan Leib and the advocacy fund of the Los Angeles Conservancy's Modern Committee. Mr. Moruzzi is an authority in the area of mid-century modern resources. He has authored several California Register nominations including the 1962 Los Angeles County Hall of Records building (Neutra and Alexander), the 1958 Johnie's Broiler in Downey (Paul Clayton), and the 1949 Bob's Big Boy in Toluca Lake (Wayne McAllister). He was the lead researcher and evaluator for a comprehensive historic resources survey of the City of Rancho Mirage, which consists primarily of mid-century resources. He has been a lecturer and panelist on issues surrounding the preservation of mid-century modern resources. Mr. Moruzzi was Chairman of the Los Angeles Conservancy's Modern Committee from 1992-1997, and is the Founding President of the Palm Springs Modern Committee. In 2002 he received the Presidential Public Service Citation from the AIA California Council for work in the preservation of Modernist architecture in Southern California. In 2012, the California Preservation Foundation presented Moruzzi with its President's Award for his "extraordinary work to protect modern resources and preserve California's rich cultural heritage."

Between 2007 and 2011, volunteers from the Residential Subcommittee of the Los Angeles Conservancy's Modern Committee conducted a reconnaissance survey of all of the extant Case Study Houses in California. The immediate goal was to apply the Registration Requirements detailed in Section F to the visible exteriors of each dwelling in determining whether the resource met integrity requirements under Criterion C.

In preparing individual National Register registration forms, additional sources referenced included previously submitted City of Los Angeles Cultural Heritage Monument nominations, monographs and other books or articles related to individual Case Study architects, and the National Historic Landmark nomination prepared for the four Case Study houses located on Chautauqua Boulevard in Pacific

Palisades, California.[82]

On the basis of the research and the reconnaissance survey, the properties identified as potentially eligible for listing in the National Register fell under the historic context: "Experimental Modern residential architecture of the Case Study House Program in California: 1945-1966." There is one associated property type, "Single and multiple family residences of the Case Study program," with two subtypes: wood-frame dwellings and steel-frame dwellings. The selected property type is based on the actual record of built and unbuilt dwellings of the Case Study House program in its entirety. The subtypes are based on the two primary and fundamental methods of construction of the dwellings, built and unbuilt, represented in the program.

Due to the small quantity of built Case Study houses still extant and the high level of significance associated with each resource as integral to the entire program, the standards for registration were somewhat flexible. Alterations were acceptable if they did not drastically alter the overall scale of the building, substantially modify the key character defining features of the dwelling, or clearly violate the documented intention of the architect. Specifically, a residence must have exhibited enough physical integrity to be readily identifiable as a contributor to the program.

The nominated properties included within this multiple property nomination appear to meet established eligibility requirements and National Register Criteria A and C. Additional submissions of properties meeting these requirements and criteria will be submitted in the future.

[82] Case Study houses #8 (Eames House), #9 (Entenza House), #18 (West House), and #20 (Bailey House).

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