

# TECHNOLOGY AND ENVIRONMENT: THE POSTWAR HOUSE IN SOUTHERN CALIFORNIA

During the period of 1940-1975, architectural ideas and forms for the southern California house were realized through new and adapted construction technologies. Architects hoped that these would provide the means to respond to the huge demand for housing after World War II. As promoted by the journal *Arts + Architecture* in their well-known Case Study House program (1945-66), the dominant image of the postwar modern house in the mild southern California climate was the steel-framed box, with a flat roof and extensive glazing. The program focused on the use of new residential construction materials and advocated for the mass production of these designs by architects including Raphael Soriano, Craig Ellwood and Pierre Koenig. Though the modern house was promoted in both trade and popular journals, it was not widely adopted by the public and builders, who stuck largely with conventional wood frame construction systems and more traditional forms. The modern house ideals were seen as largely unrealized, replaced by postmodern designs of the late 1960s and early 1970s. The postmodern house rejected the minimalism of modernism and embraced a more inclusive approach to residential design that admitted the influence of history and vernacular architecture along with popular culture.

However, the picture during this period is more complex. This postwar work had its origins in work in the 1920s and 1930s in reinforced concrete and steel-framed houses, as well as those made out of more conventional wood frame construction. Architect R.M. Schindler began a southern California tradition of modern house design that included a wide variety of construction systems and building forms, starting with his own house in 1921-22, made of tilt-slab concrete and exposed redwood framing. Richard Neutra, whose work was closely associated with the International Style, designed the first steel-framed house in the U.S., the Lovell Health house in Los Angeles (1928-29), but also designed houses using wood frame. In fact, the houses designed by architects in postwar southern California demonstrate a wide variety of forms and construction systems as well as approaches to site and environment. By looking at this variety, continuity can be seen between works by modernists Schindler, John Lautner and Ray Kappe and early postmodern works by Charles Moore and Frank Gehry.

The southern California climate united the postwar houses in their emphasis on connections to the environment, extensive use of natural light and a minimal use of mechanical means to light, heat and cool the interiors. Contemporary analytic tools enable us to examine the actual levels of daylight and energy use in these houses and, again, a complex picture emerges. These designs show successes, challenges, and adaptations made by owners over time to accommodate their houses to their environment.