

Tract Housing in California, 1945-1973: A Context for National Register Evaluation



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Introduction

The California Department of Transportation (Caltrans) has prepared this context document to assist in applying the National Register of Historic Places eligibility criteria to tract housing built after World War II. This document expands upon the National Park Service Bulletin, *Historic Residential Suburbs: Guidelines for Evaluation and Documentation for the National Register of Historic Places*.¹ It also supplements Volume 2 (Cultural Resources) of Caltrans' *Standard Environmental Reference*.²

Section 106 of the National Historic Preservation Act (NHPA) requires that federal agencies consider the effects of their undertakings on historic properties. (Historic properties are those which have been listed on the National Register of Historic Places or determined eligible for listing.) Caltrans complies with Section 106 of the NHPA for projects that include federal funding or that require federal agency permits or approvals. In addition, Caltrans acts as the federal agency for Section 106 compliance and other federal environmental laws in accordance with the authority delegated by the Federal Highway Administration in 2007.

Caltrans complies with Section 106 of the NHPA through a Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, and the California State Historic Preservation Officer. Both the Programmatic Agreement and the regulations implementing Section 106 of the NHPA [36 CFR § 800] require identification and evaluation of properties that could be affected by federal undertakings. Properties are evaluated in accordance with the National Register of Historic Places criteria, listed below. A property that meets one or more of these four

criteria may be eligible for National Register listing:

- A. *Properties that are associated with events that have made a significant contribution to the broad patterns of our history*
- B. *Properties that are associated with the lives of significant persons in our past*
- C. *Properties that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction*
- D. *Properties that have yielded, or may be likely to yield, information important in history or prehistory. (This criterion applies primarily to archaeological properties.)*

In order to be eligible for National Register listing, a property must possess integrity in addition to meeting one or more of the four criteria. This means that a property must retain enough of its original design, materials, and other qualities to convey its historic character and significance.

This document is also intended to assist in compliance with the California Environmental Quality Act (CEQA) and California Public Resources Code section 5024. Public Resources Code section 5024 established the California Register of Historical Resources, includes eligibility criteria [5024.1(c)] for the listing of resources, and describes state-agency responsibilities for the preservation of historical resources in their ownership. The eligibility criteria for the California Register of Historical Resources are the same as for the National

Register of Historic Places. For simplicity, where this document refers to the National Register criteria, it also means the California Register criteria.

In general, a property must be at least 50 years old to be eligible for National Register listing, in order to ensure that sufficient time has passed to gain an adequate historical perspective for its evaluation. Properties less than 50 years old may be eligible for National Register listing if they possess exceptional significance. Because Caltrans projects often have long lead times between the studies carried out for Section 106 compliance and the start of construction, Caltrans' policy is to consider all properties that will become 50 years old by the scheduled completion date of the project. As of 2011, this means that properties constructed up to the mid-1960s may need to be evaluated for National Register eligibility if they might be affected by Caltrans' projects. (A noteworthy difference between the national and state registers is that the California Register of Historical Resources does not have a similar 50-year rule.)

More than 40 million housing units were built in the United States during the 30-year period following the end of World War II, and at least 30 million of these were single-family houses.³ In California, approximately six million housing units were constructed during this period, with more than 3½ million of these being single-family houses.⁴ The survey and evaluation of postwar housing therefore has the potential to greatly increase the time and effort required for Section 106 compliance. To address the issue, this document provides context information on single-family houses and tracts of such houses constructed from 1945 through 1973, including information on the history of the period and the design characteristics of

postwar houses and housing tracts in California.⁵ While this context includes some brief references to apartment buildings, it does not include a detailed discussion of multi-unit housing or any discussion of urban renewal projects, farmworker housing, or other forms of postwar housing.

This context also focuses on the builders' house rather than the high-style Modern residence. The unique, architect-designed house of the postwar period is generally not going to be difficult for Caltrans' architectural historians or consultants to research and evaluate. A considerable amount of documentation and comparative information is already available for such properties. It is the common house of the period, like the common Queen Anne or Craftsman bungalow of earlier periods, that will pose the most difficulty in determining eligibility for National Register listing. In addition, the evaluation of entire tracts or portions of tracts as possible historic districts is likely to be the greatest challenge in evaluating properties for National Register eligibility.

The year 1973 was chosen as the closing date for this study because it marks the end of a nearly 30-year period of postwar economic expansion in the United States. The oil embargo and resulting gasoline shortages in the fall of 1973 clearly denote the end of an era, especially in auto-centric California. Housing construction nationwide surpassed two million new units for the first time in 1971, and continued at more than two million units per year in 1972 and 1973. Construction then fell to just 1.3 million units in 1974 and 1.2 million in 1975, and never again reached the level sustained just prior to the oil embargo.⁶ In California, Jerry Brown was elected to the Governorship in 1974. Brown set a somewhat different tone for the state compared to his predecessors, emphasizing

environmental conservation and speaking of entering an “era of limits” following decades of rapid population and economic growth.

Because the purpose of this context is to assist in the evaluation of postwar housing for compliance with Section 106 and California’s historic preservation laws, the emphasis is on those aspects of a property that can be seen and documented through normal survey activities. These include the façade, side walls, overall form, exterior materials, landscape features in the front and side yards, and the relationship of the house to the street and to the larger community. Therefore, this context does not attempt to describe in detail the evolution of floor plans, trends in interior design or interior materials, or advances in building utilities.

Overview of the Document

Part I of this context (Chapters 1 through 6) provides an overview of several historical themes that may be relevant to the evaluation of postwar houses and housing tracts. It is intended primarily to aid in the evaluation of properties under National Register criterion A. These themes include population growth and the housing boom, residential segregation and integration, and the Cold War and attendant construction of fallout shelters. The historical themes covered here are not exhaustive, and

researchers may identify properties that meet criterion A for association with other important events in national, state, or local history.

Part II (Chapters 7 through 10) focuses on the planning and design of houses and housing tracts. It identifies the distinctive characteristics of postwar housing at the scale of the tract or subdivision as well as the individual house, describes the process of industrialization within the housing industry in the postwar period, and provides information on some of the most important architects and builders in California. This section is intended to aid in the evaluation of individual properties and districts under National Register criterion C.

Part III includes a single chapter on survey methods and evaluation. In addition to recommendations for streamlining the survey and recordation of tract housing, this section discusses the application of the National Register criteria and the assessment of integrity for both individual properties and possible historic districts.

Contact Information

Any questions or comments on this study should be directed to the Chief, Cultural Studies Office, Division of Environmental Analysis, MS 27, P.O. Box 942874, Sacramento, CA 94274-0001.

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This document was written by Andrew Hope, Caltrans Associate Environmental Planner (Architectural History). Maya Beneli assisted with research, primarily for the six chapters in Part I. Douglas Bright, Janice Calpo, Jill Hupp, Elizabeth McKee and Frances Schierenbeck assisted with fieldwork.

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- Los Angeles Public Library (pages 2, 7, 11, 16, 20, 21, 31, 60, and 61)

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1

Housing and Metropolitan Growth before World War II

Suburban development began at least as early as the Roman villas, where the aristocracy retreated from the city to escape plagues, civil unrest, or simply the stress of living in a city that was extremely densely populated by modern standards. The word “suburb” in English literature appears as early as Chaucer’s *Canterbury Tales*, written in 1386.¹ In the United States, the development of “bedroom communities” outside of major cities began in the second decade of the 19th century. Ferry service between Manhattan and Brooklyn was inaugurated in 1814, and the row-house community of Brooklyn Heights grew up in response to demand for housing beyond what were then the city limits of New York.²

Transportation and Urban Expansion

Advancements in public transportation throughout the 19th and early 20th centuries had dramatic effects on urban form, residential density, and the growth of suburbs. The horse-drawn omnibus originated in Northeastern cities in the late 1820s.³ Unlike the stagecoach, with scheduled trips between separate towns, the omnibus traveled along a prescribed route within a single urban area, or from city to suburb. For those who could afford the daily fare, the omnibus made available the option of living beyond the limits of the walking city.

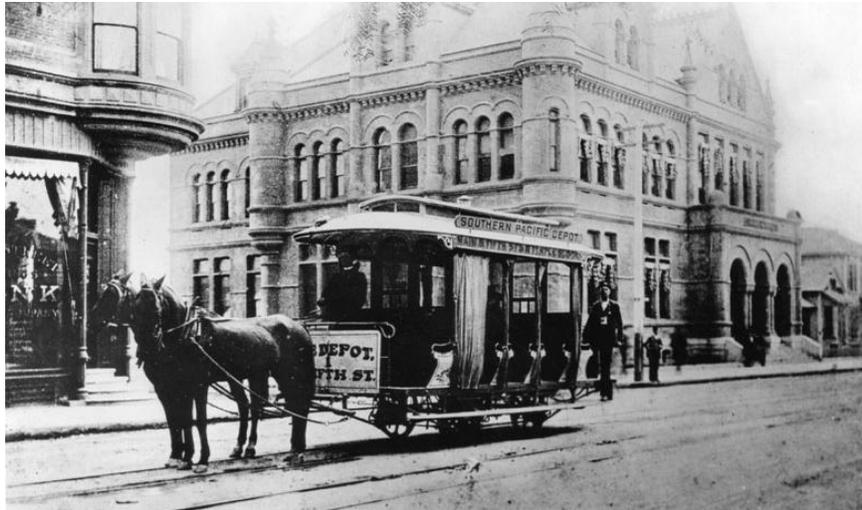
An innovation of the 1850s was the horsecar, which involved the simple but dramatic improvement of placing the horse-drawn wagon on iron rails. This improved the comfort of the trip compared to riding over cobblestone or unpaved streets, and made the wagons much easier for horses to pull. The horsecar could cover six or more miles per hour

on level ground, about twice the average speed of the omnibus.⁴ This greater speed meant that a commuter willing to tolerate a daily trip of up to 45 minutes each way (common then as now) could live more than four miles from his downtown business.

Contemporary with the horsecar was the development of the steam railroad. Daily service from lower Manhattan to Harlem (a distance of more than five miles) began in the 1830s, and many cities had commuter railroads in operation by the time of the Civil War.⁵ While the omnibus and the horsecar facilitated the physical expansion of the city, the steam railroad reached farther into the countryside and brought outlying towns and villages into the orbit of a larger metropolitan area. Since all of these transit systems relied on patronage for profitability, the lines tended to radiate outward from the central city rather than connecting the smaller settlements. This reinforced the primacy of the central city relative to the suburbs and outlying towns.

The invention of the streetcar or trolley led to a great expansion in the size of urbanized (or suburbanized) areas. The reliability and safety of the electric streetcar with overhead wires was first demonstrated in Richmond, Virginia in 1887.⁶ By 1903, the U.S. had nearly 30,000 miles of streetcar tracks, with electrical power almost completely replacing horse power for urban public transportation.⁷ With average speeds of up to 15 miles per hour, including stops, the streetcar was about twice as fast as the horsecar.⁸ Doubling the speed of travel meant doubling the distance that a commuter could live from the central business district without devoting more time to his daily

Horsecar drawn by two horses, downtown Los Angeles. (Courtesy of the Los Angeles Public Library.)



commute. This doubling of the radius of the urbanized area from the downtown core resulted in a potential expansion of the city's area by a factor of four. However, the city did not expand uniformly in all directions, but instead developed long, fingerlike extensions following the streetcar lines. This resulted in a built-up area with a form resembling that of a starfish.

The extension of streetcar lines was closely linked to real estate development. Since opening a new line greatly increased the value of adjacent land, the owners of streetcar companies saw more potential for profit in real estate speculation than in collecting transit fares. Many new lines were opened with the understanding that they would operate at a loss, but that the profit would come from the development of new housing and commercial properties along the route.⁹ This provided an incentive for operators to expand their streetcar systems in advance of immediate demand.

In Los Angeles, for example, Henry Huntington formed the Pacific Electric Railway through the consolidation of numerous earlier streetcar lines. He then extended tracks throughout the Los Angeles area between 1890 and 1910. Huntington's system reached from

the Pacific Coast town of Santa Monica to San Bernardino, approximately 70 miles inland, and from Pasadena to Orange County.¹⁰ The Pacific Electric Railway set the template for urban growth in Southern California that was later duplicated and expanded by the freeway system.¹¹

As in Los Angeles, the streetcar and commuter railroad systems radically expanded and transformed urban areas throughout the United States. Although city populations increased throughout the 19th and early 20th centuries, the physical expansion of urban areas coincided with a general lowering of residential density. This process of physical expansion coupled with reduced density, later called sprawl, accelerated during the building boom that followed World War II but was by no means a strictly postwar phenomenon.

The next great urban transformation came with the growth of automobile ownership in the first decades of the 20th century. In 1900, there were an estimated 8,000 motor vehicles in the United States.¹² This increased to more than nine million by 1920 and almost 27 million by 1930.¹³ With the adoption of assembly line techniques, the Ford Motor Company was producing 9,000 cars per day in 1925.¹⁴ Just as



*Electric streetcar,
Sacramento, ca. 1915.
(McCurry Foto, photographer,
Donald Rivett Collection
[1998/070/0004], courtesy of
the Center for Sacramento
History.)*

previous innovations in transportation made earlier modes obsolete, the growth of auto ownership led to the decline of the streetcar. Most of the urban streetcar systems had stopped expanding by World War I, and ridership nationwide peaked in 1923.¹⁵ Public transit operators began replacing their streetcar systems with more flexible and less expensive busses around this time, although the process took decades and some cities never completely abandoned streetcar service. By 1948, there were fewer than 18,000 streetcars in service, less than one-quarter of the number in service thirty years earlier.¹⁶

In addition to being faster than the electric streetcar, the automobile freed motorists from the fixed routes of rail-based transportation. This unprecedented mobility had a profound impact on urban form. Previously undeveloped areas that were too far from streetcar lines became ripe for development in the automobile era. As these undeveloped areas gradually filled in, the starfish-shaped pattern of city growth returned to a more concentric pattern. In addition, the primacy of the central city diminished, since all points within the metropolitan area were equally accessible by automobile. This would have a significant effect

on cities in the later 20th century, as retailing, and later offices and other centers of employment, moved out of the central cities.¹⁷

The growth of automobile ownership also had an influence on the design of suburban residential property, with the garage becoming a necessary and standard feature. Initially, garages were typically small, separate buildings located at the rear of the property, with access from an alley or a driveway running beside the house from the street to the rear of the lot. Efforts to integrate the garage into the design of the house itself began early in the 20th century and became more prevalent in the 1920s and 1930s. However, the detached garage predominated until after World War II.

Housing and Housing Tracts

A new type of residential community appeared in the mid-19th century, characterized by detached houses on large unfenced lots, arranged along winding streets to create a park-like setting. Llewellyn Park in New Jersey has been identified as the first such suburb in the United States, although there are earlier English examples.¹⁸ Located 12 miles from New York City and reachable by ferry and then steam train, Llewellyn Park was established in the late

1850s as a pastoral setting for the picturesque architectural styles of the period, such as the Italianate and Gothic Revival.¹⁹ Many of the individual lots were actually small estates of up to 20 acres.

Riverside, Illinois, another early and influential example of the picturesque suburb, is located nine miles from downtown Chicago and is connected to the city by a commuter railroad. The prominent landscape architect Frederick Law Olmsted planned this new community in the late 1860s. The plan for Riverside included more than 2,000 building lots along winding streets, a small commercial area around the train station, and a ribbon of green space along the Des Plaines River reserved for a public park. With house lots averaging slightly less than one-half acre, Riverside was clearly a suburb in the contemporary sense, rather than a collection of semi-rural estates as at Llewellyn Park.²⁰ Riverside exhibited many of the features associated with later suburban communities, including the provision of a commercial center, reservation of land for parks, and detached houses arranged along gently curving streets. While row houses and multi-family buildings continued to be built in urban neighborhoods, the detached, single-family house became the nation's primary form of suburban housing from the time of the picturesque suburb.

With the expansion of streetcar systems at the end of the 19th century, new subdivisions began to be platted in proximity to existing or planned streetcar lines. Many were within the limits of existing cities, or were later annexed to cities. Some streetcar subdivisions were built in early suburbs that are today the older, inner-ring suburbs of American cities. In contrast to the picturesque suburb, gridiron street plans were common in the streetcar suburb, often as extensions of the preexisting city grid.

Prior to World War II, new housing tracts were typically the work of subdividers rather than builders. A subdivider acquired property, filed a subdivision map with the city or county, and laid out streets and house lots. The degree of improvement carried out by the subdivider varied, but might include the construction of paved streets, curbs, sidewalks, water and sewer connections, electrical service, street lighting, and landscaping. However, not every subdivision included all of these amenities, and some offered nothing more than graded dirt roads. Subdividers generally did not build the houses in their tracts. Their income derived instead from selling house lots at a price that would cover the initial land purchase and infrastructure costs and bring a profit. The subdividing of land was a highly speculative business. During real estate booms such as that of Los Angeles in the 1920s, many platted subdivisions were little more than dreams on paper, and never came to fruition.

In the typical pre-World War II subdivision, prospective home owners would purchase an individual lot and hire a builder for the construction of the house. The builder worked on contract for the lot owner, providing construction services only and having no ownership stake in the finished product. Some builders also purchased lots on speculation, constructing and selling houses for profit. The house building industry consisted of a large number of independent, small-scale contractors, typically carpenters with a modest amount of capital and some talent for organization and oversight of a building project. As late as 1938, the typical contractor built no more than four houses per year, and only a small number built ten or more houses in a single year.²¹

As a consequence of this separation of functions between the subdivider and the

builder, prewar housing tracts typically include houses by multiple builders. In addition, prewar tracts often filled in with houses in a slow and irregular manner, in some cases over more than a decade. Prewar housing tracts therefore often include houses with a wide range of construction dates. As a result, prewar subdivisions tend to exhibit a high level of architectural variety that is rarely matched in the postwar subdivision. The eclecticism of early 20th century residential architecture contributed to this variety, with many subdivisions containing examples of the Craftsman and various Period Revival styles.

The situation began to change in the 1920s, when a few large subdividers with sufficient capital started building and selling houses rather than simply selling residential lots. The practice was not widespread before World War II, however, and even those who did construct houses often sold vacant lots in the same subdivision to buyers who wanted to make their own arrangements for construction of a house. More subdividers became builders in the 1930s, finding that the market for finished houses, although severely diminished by the Depression, was nonetheless much better than the market for vacant lots. This period saw the first of the merchant builders, who not only combined tract development with housing construction, but also devised techniques for the construction of houses at an unprecedented rate. This approach to the construction of new housing tracts became predominant in the postwar period, and is discussed in greater detail in Chapter 8.

The Depression and New Deal

The stock market crash of October 1929 ushered in the Great Depression, which lasted in the United States until the wartime buildup of the early 1940s. In the first years of the Depression,

from 1929 to 1933, industrial production fell by nearly 45 percent and 13 million Americans lost their jobs.²² Also during this period, about 40 percent of the nation's 25,000 banks failed, wiping out nine million savings accounts.²³ (The government created the Federal Deposit Insurance Corporation in 1933.) More than one million families lost their farms to the combined effects of the Depression and the dust bowl in the southern Great Plains region.²⁴ Housing starts, which peaked at 940,000 in 1925, had fallen by nine-tenths by 1933, to 93,000.²⁵ The number of new houses started did not surpass the 1925 level until after World War II. Home ownership by non-farm families declined from 47 percent in 1930 to 41 percent by 1940.²⁶

President Roosevelt and the United States Congress initiated a variety of New Deal programs and policies to address the economic crisis. The National Housing Act of 1934, which created the Federal Housing Administration (FHA), attempted to stabilize the housing market and expand opportunities for home ownership. This was done primarily through FHA's program of mortgage guarantees to lending institutions.

Prior to the 1934 housing law, banks rarely financed more than 50 percent of the cost of a new house, and mortgages typically had a duration of five years or less.²⁷ Mortgage payments frequently covered only the interest on the loan, requiring balloon payments at the end of the term or periodic refinancing.²⁸ These terms prevented much of the working class from buying homes, or required many years of patient saving before a family could afford to buy a house. As one writer noted, "to get a mortgage, in brief, a man had to have almost enough money not to need one."²⁹

In contrast, FHA mortgage insurance applied to loans of up to 80 percent of the purchase price of a house, with repayment of

both principal and interest over a period of up to 20 years.³⁰ Congress amended FHA's mortgage insurance program in 1938, reducing the required down payment to ten percent and increasing loan terms to 25 years. (Further amendments in 1948 reduced down payments to five percent and increased loan terms to 30 years.)³¹ The intent of these policies, providing self-amortizing mortgages on much more liberal terms that had previously been considered prudent, was to spur lenders to make more loans, leading to a revival of the building industry and increasing the rate of home ownership.

By making mortgage financing accessible to a much larger number of Americans, FHA stimulated demand and contributed to a mild revival of housing construction in the later 1930s. Housing starts rose to 332,000 in 1937 and more than 450,000 in 1939.³² Although this was a substantial increase compared to the early 1930s, it was still less than half the 1925 peak and was not adequate to meet the nation's housing needs. While FHA's programs saw limited success during the Depression, these programs were to play a crucial role in both the planning and financing of new housing tracts during the postwar housing boom.

California Growth and Development

In 1900, California had a population of about 1.5 million, ranking 21st among the 45 states in the Union at that time.³³ California's population was only slightly larger than that of Kansas, while New York State had almost five times as many residents. The state's economy was largely based on agriculture, and a substantial portion of California's industrial production consisted of canning, milling and other types of food processing. San Francisco was by far the state's largest city, with a population of about 343,000 (less than half of its current population).

Los Angeles was a small city of just over 100,000 residents.

By 1920, California's population had grown to 3.4 million, and the state ranked eighth in population among the 48 states. The City of Los Angeles grew from 102,000 residents in 1900 to 577,000 in 1920, surpassing San Francisco to become the largest city in the state and the tenth largest in the nation. Industrial production grew along with the increase in population. The opening of the Panama Canal in 1914 led to increased shipping at California ports, while the extraction and refining of oil became a major industry in Southern California.

Growth in both population and industry accelerated in the 1920s. California led the nation in population growth during this decade, adding more than two million residents. In addition to other industries, automobile manufacturing grew rapidly, as the major auto companies set up factories in California to take advantage of the state's increasing demand for cars and trucks. Ancillary industries such as glass and tire manufacturing grew along with the auto industry. Los Angeles became one of the nation's leading industrial centers, with the city's population surpassing one million before 1930. Los Angeles had grown to become the nation's fifth largest city by 1930, trailing only New York, Chicago, Philadelphia, and Detroit.

California continued to lead the nation in population growth in the 1930s, adding more than 1.2 million new residents. However, the rate of growth was substantially lower than in previous decades. A significant component of migration to California in the 1930s came from the Dust Bowl states of the southern Great Plains as well as states where the increasing mechanization of agriculture forced tenant farmers off the land. Of those who moved to



Morris Dam on the San Gabriel River in eastern Los Angeles County, completed in 1934. (WPA Series, 1937. Courtesy of the Los Angeles Public Library.)

California from other states in the 1930s, a majority came from just five states: Kansas, Oklahoma, Texas, Missouri, and Arkansas.³⁴ Many of these immigrants settled in the San Joaquin Valley and other farming areas of the state, seeking work in agriculture and food processing.³⁵

On the eve of World War II, California's population stood at almost 7 million, with the city of Los Angeles having 1.5 million residents. The growing metropolis of Southern California led the nation in aircraft manufacturing, ranked second in the production of autos and tires, and third in oil refining.³⁶

California Infrastructure

Numerous important public works projects were undertaken in California in the 1930s, providing needed employment during the Depression and creating the infrastructure that served as the foundation for later growth. The largest of these projects were the dams that secured water supplies for California's cities and for agriculture. Although O'Shaughnessy Dam was completed in 1923, as the major

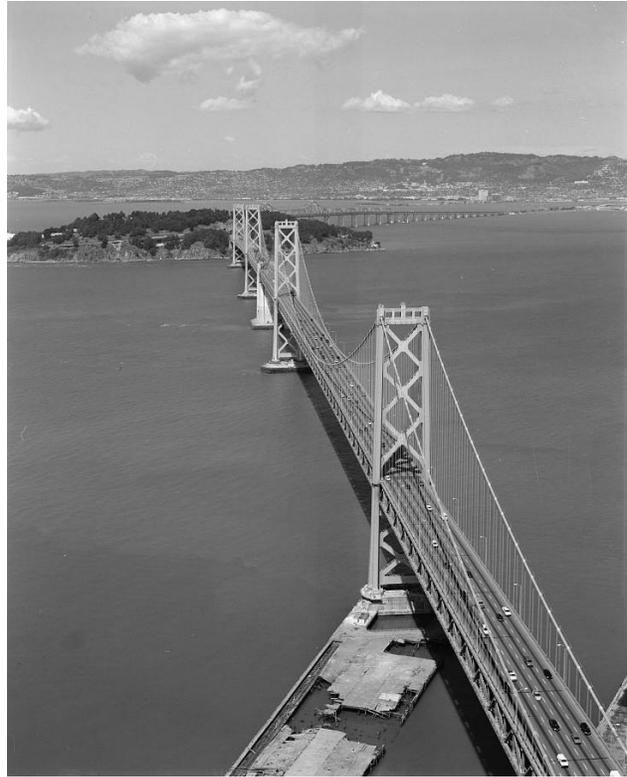
component of the Hetch Hetchy project, construction of the larger system of dams, reservoirs, and aqueducts continued into the 1930s.³⁷ The completed system provided San Francisco with water from the Tuolumne River in Yosemite National Park, about 150 miles away. Other large dams begun in this period include El Capitan Dam in San Diego County (completed in 1934), Friant Dam on the San Joaquin River (completed in 1942) and Shasta Dam on the Sacramento River (completed in 1945). Several smaller dams, canals, and aqueducts were built or started in the 1930s.

The dam project that had the greatest impact on Southern California is not located in the state. Boulder Dam (now Hoover Dam) on the Colorado River, bordering Arizona and Nevada, was begun in 1931 and completed in 1936. The Colorado River aqueduct opened three years later, carrying impounded water more than 200 miles to serve the Los Angeles metropolitan area.

Hoover Dam sends electricity as well as water to California. The city of Los Angeles began receiving electrical power from the dam

in 1936, over a transmission line 266 miles in length. The state's own dams also provided hydroelectric power, producing more than eight million kilowatt hours by 1937.³⁸ At that time, California ranked third in the nation in the production of electricity.³⁹

In addition to dams, canals, and power plants, major public works related to transportation were carried out in the later 1930s. Completion of the Golden Gate Bridge, Bay Bridge, and Caldecott Tunnel helped to tie the Bay Area's cities and towns into a single metropolis. Southern California saw the beginnings of its extensive freeway system with the opening of the Arroyo Seco Parkway and the Cahuenga Pass section of the Hollywood Freeway. These two early freeways improved automobile travel from downtown Los Angeles to Pasadena and the San Fernando Valley, respectively. These improvements in water supply, electrical power, and transportation positioned California to assume a major role in industrial production during World War II.



San Francisco – Oakland Bay Bridge, completed in 1936. (Frank Deras, Jr., photographer, 1998, Historic American Engineering Record Collection. Courtesy of the Library of Congress, Prints & Photographs Division.)

2

The War Years in California

The declaration of war against Japan in December of 1941 led to a dramatic increase in military activity on the West Coast. An estimated seven million soldiers spent at least some time in California during the war, either for training, assignment to one of the many military facilities, or simply on their way to battlegrounds in the Pacific.¹ California led the nation in the number of new military facilities constructed during the war.² Among these new facilities were training centers (including desert bombing ranges), ordnance and supply depots, military hospitals, and coastal defenses built in anticipation of possible Japanese attacks. By the end of the war, 18 percent of the land area of San Francisco County and 40 percent of the land area of San Diego County was under the control of the U.S. military.³ Industrial production for the military also took off during the war. California ranked first among the states in government contracts for shipbuilding (17.3 percent of all contracts) and aircraft (15.6 percent) in addition to the construction and expansion of military facilities (11.1 percent).⁴

Military Industry

The nation's entry into the war in 1941 in both the Asian and European theaters required a tremendous number of ships, planes, tanks, and other weapons as well as ammunition and a wide variety of other equipment. War production served as an engine of industrial growth across the country, but even more dramatically in California than elsewhere. Prior to World War II, the Western United States accounted for less than ten percent of the nation's manufacturing.⁵ Although California was the largest manufacturing state in the West,

its main products were agricultural. Government spending on military equipment, base construction and other infrastructure, totaling \$35 billion from 1941 through 1945, transformed California into an industrial power.⁶ By 1945, Los Angeles ranked second to Detroit in industrial production, surpassing the larger cities of New York, Chicago, and Philadelphia.⁷ California received 12 percent of all military contracts during the war, although the state accounted for only 5.2 percent of the country's population in 1940.⁸ While these contracts included food processing, uniforms, and light manufacturing, California's major wartime industries were shipbuilding and aircraft assembly.

The nation's shipbuilding industry was almost completely dormant throughout the 1930s. American shipyards launched only 23 ships in that decade.⁹ The industry had to be quickly revived for the war effort, reactivating existing facilities and constructing entirely new shipyards. Nationwide, employment in the shipbuilding industry grew from only 4,000 people in 1939 to 242,000 by 1944.¹⁰

The San Francisco Bay Area had the largest concentration of shipbuilding activity in the United States during the war.¹¹ More than three billion dollars in federal government contracts went to Bay Area shipyards.¹² Existing shipyards and ship repair and maintenance facilities expanded rapidly. Among these were the Navy's Mare Island shipyard in Vallejo, Moore Dry Dock in Oakland, and the Hunters Point shipyard in San Francisco. Other facilities were newly built or expanded in Richmond, Sausalito, Napa, and the Central Valley port of Stockton.

Shipbuilding at California Permanente Metals Corporation in Richmond, 1943. (Ann Rosener, photographer. Courtesy of the Library of Congress, Prints & Photographs Division.)



Henry J. Kaiser built a group of four entirely new shipyards in Richmond, in the former mud flats along the northeastern shore of San Francisco Bay. Kaiser had no experience in shipbuilding prior to the war, but gained valuable experience in the management of large construction projects as a prime contractor for the construction of Boulder Dam (later renamed Hoover Dam) and other large dams in the West during the 1930s. Kaiser's facilities in Richmond formed the largest shipbuilding operation on the Pacific Coast, and launched more vessels during the war than any other shipbuilder in the nation.¹³ The Richmond shipyards primarily built cargo vessels known as Liberty and Victory ships.

Under the pressure of war, Kaiser's shipyards in Richmond and in the states of Oregon and Washington pioneered in the adoption of rapid-production techniques. Among the most important of these were new systems of sub-assembly and the labor-saving use of welding rather than riveting for steel connections. With these and other innovations, the time required to build a ship declined from

14 months at the beginning of the war to just eight weeks by 1945.¹⁴ Bay Area shipbuilders launched a total of 1,400 vessels during the war. More than half of these (747 total) came from Kaiser's shipyards in Richmond.¹⁵

Employment at the Kaiser shipyards increased from 4,500 in the summer of 1941 to almost 100,000 by the end of 1943.¹⁶ Other Bay Area shipbuilding facilities experienced a similar, although less dramatic, boom in employment. Civilian jobs at the Mare Island shipyard increased from about 5,000 in 1940 to 45,000 in 1942.¹⁷ Even the inland port of Stockton employed over 10,000 people in shipbuilding at the height of the war effort.¹⁸ In addition to the Bay Area, facilities in Long Beach and elsewhere in Southern California contributed to the wartime shipbuilding effort.

California's aircraft industry was concentrated in Los Angeles and San Diego. The Los Angeles metropolitan area had a nucleus of small aircraft companies before the war. Aviation pioneer Glenn Martin formed the earliest of these companies before World War I, employing a small number of workers to



Aircraft assembly during World War II. Workers at this Lockheed plant in Burbank are building C-69 Constellations. Originally designed for commercial airlines, the C-69 was used as a military transport during the war. (Wars-World War II-War Effort Series. Courtesy of the Los Angeles Public Library.)

assemble biplanes.¹⁹ In 1920, Donald Douglas left his position as vice-president at Martin's company to start his own aircraft business in Santa Monica, adjacent to Clover Field (now Santa Monica Municipal Airport).²⁰ Other companies followed, including Hughes, Lockheed, North American Aviation, Northrop, and Vultee. In addition to these Los Angeles companies, Consolidated Aircraft relocated from Buffalo, New York to San Diego in the mid-1930s. The Los Angeles metropolitan area became the nation's largest center for aircraft manufacturing by the late 1930s. It was home to more than half of the major manufacturers as well as a large network of smaller companies that provided sub-assemblies and all types of components.²¹

Southern California's aircraft industry began a period of rapid growth in the late 1930s, with contracts to build warplanes for Britain and France. Lockheed Aircraft, for example, received a contract from the British government to build 200 bombers in 1938.²² Employment at the company's Burbank factory

increased to more than 2,000 in that year, compared to only 64 in 1932.²³ The United States began its own military buildup shortly thereafter, placing numerous orders for military aircraft. Lockheed's workforce grew to 7,500 on the eve of the U.S. entry into the war, while employment at Douglas Aircraft grew to 15,000.²⁴

As with shipbuilding, wartime demand transformed aircraft manufacture from a craft industry to one based on mass-production, enabling the nationwide construction of approximately 300,000 aircraft during the war. With its concentration of manufacturers, the Los Angeles and San Diego areas produced more than twice as many of these aircraft as any other region of the country.²⁵ Wartime employment in California's aircraft industry reached a peak of 243,000 in 1943, with most of these workers in the Los Angeles and San Diego metropolitan areas.²⁶

While shipbuilding declined rapidly after the war, aviation remained a major industry in Southern California. Companies based in the

Los Angeles and San Diego areas continued to procure military contracts throughout the Cold War period, expanding into all forms of aerospace technology. Civilian air travel and commercial cargo transport also took off after the war, particularly with the development of jet airliners in the late 1950s. The aerospace industry thus grew to become an important segment of the California economy in the postwar period.

Population and Housing

The rapid growth of industrial output and employment opportunities during World War II led to an internal migration of eight to ten million workers nationwide, as residents of small towns and rural areas moved to urban centers.²⁷ California received a large share of this migration, with 1.3 million people moving to the state in the early 1940s.²⁸ Continuing a trend established in the 1930s, migration from the South-Central states (Missouri, Arkansas, Kansas, Oklahoma, and Texas) made up a large share of Southern California's population growth. Relocation within California was also an important characteristic of the state's population during the war years. Agricultural laborers, many of whom were earlier arrivals from the South-Central states, left the San Joaquin Valley and other farming areas in large numbers for manufacturing jobs in the state's growing coastal cities.²⁹

The city of Richmond was the biggest wartime boomtown in California, and possibly in the nation. A small city of about 24,000 residents in 1940, Richmond's population quickly grew to exceed 100,000 in conjunction with the growth of the Kaiser shipyards.³⁰ The population of the San Francisco Bay Area as a whole increased by nearly 40 percent between 1940 and 1944, from 1.4 million to more than 1.9 million.³¹ The Los Angeles metropolitan area

also added one-half million residents during this period.³² The city of San Diego, while much smaller than Los Angeles or San Francisco on the eve of the war, doubled in size to a population of 400,000, including more than 100,000 servicemen.³³

While jobs were plentiful in California cities during the war, housing was not. Employees frequently left their jobs because of a lack of available housing, and many workers lived in vehicles, tents, or other improvised shelter. In addition, the growing number of women working in military industries faced additional difficulties related to child care and inadequate public transportation. In some Los Angeles aircraft factories, annual employee turnover reached 100 percent.³⁴ The resulting need to constantly train new employees made it difficult for plant managers to sustain production quotas.

The federal government acted to address the housing shortage for war industry workers as early as 1940, with the passage of the Lanham Act in October of that year. This legislation appropriated \$1.3 billion for the construction of 700,000 housing units in areas where a shortage of housing for war industry workers either currently existed or could be anticipated.³⁵ Some of this was public housing built by the government, but the legislation also provided assistance to private-sector builders.

The War Production Board prohibited non-essential construction in April of 1942, to conserve both labor and building materials for the war effort.³⁶ This put an end to market-driven housing construction for the duration of the war. While housing construction by the private sector continued, it was at the direction of the federal government and targeted to areas of acute shortage near military industries.

With the large number of military contracts going to California, the state also saw a large



Temporary housing for shipyard workers in Vallejo, 1942. (Russell Lee, photographer, FSA/OWI Collection. Courtesy of the Library of Congress, Prints & Photographs Division.)

share of the nation's wartime housing construction. Much of the housing stock in the city of Richmond dates to the early 1940s, and there are pockets of wartime housing in most of the state's metropolitan areas. Among the largest of the wartime developments was Linda Vista in San Diego. Opening in 1941, Linda Vista included more than 4,800 housing units for aircraft industry workers.³⁷ In Northern California, the Marin City development near Sausalito's Marinship yards provided housing and community facilities for 6,000 residents.³⁸ While many single-family houses from the wartime period remain, much of the multi-unit housing was quickly and cheaply built and intended to be temporary, and only a small number of examples are extant.

Numerous California builders constructed housing for soldiers on military bases as well as civilian housing for war industry workers. These builders, including David Bohannon, Fritz Burns, Henry Doelger, and others pioneered in the adoption of mass-production techniques. The innovations developed and refined under the pressure of wartime needs transformed the housing industry in the

postwar period. The industrialization of housing construction is described in more detail in Chapter 8, while Chapter 10 describes the careers of the most prominent of California's postwar merchant builders.

The Legacy of World War II in California

The wartime military buildup changed California in dramatic and lasting ways. While many of the state's military facilities were decommissioned after the war and have since disappeared, others have remained through the Cold War years to the present. Military bases in California that were established between 1940 and 1943 and remain in use include Beale Air Force Base near Marysville, Travis Air Force Base in Solano County, Fort Hunter Liggett in Monterey County, Vandenberg Air Force Base in Santa Barbara County, Camp Pendleton Marine Corps Base north of San Diego, and the China Lake Naval Weapons Center and Fort Irwin in the Mojave Desert.

While the presence of the U.S. military has remained an important part of California's political culture and economy, even more important was the industrialization spurred

by the demands of World War II. The war transformed California from a primarily agricultural state to an industrial power. Although much of the state's industry converted to the production of consumer goods in the postwar period, industries closely linked to the military remained a pillar of the

California economy. The aerospace industry in particular, with the development of new military aircraft, missiles, and satellites, created a direct and enduring link between Cold War military spending and California's postwar growth and prosperity.

3

Postwar Growth and Suburbanization

The population of the United States grew by more than 50 percent between 1940 and 1970, from about 132 million residents to just over 203 million.¹ This growth was not uniform across the country, but varied greatly by region, within regions, and even within metropolitan areas. Generally, the Western states (from the Rocky Mountains to the Pacific Coast) grew at a much greater rate than the rest of the country in this period. In addition, rural populations declined across the country relative to metropolitan areas. In the 1950s alone, more than ten million Americans moved from farms to urban or suburban areas.²

A substantial majority of the population growth in the postwar era occurred in the suburbs. The proportion of the U.S. population living in suburbs grew slowly in the period between the two World Wars, from 17 percent to 20 percent.³ However, by 1970 more than one-third of all Americans lived in the suburbs, and the nation's approximately 75 million suburbanites for the first time exceeded the number of Americans living in cities.⁴ The United States had become a suburban nation.

California grew much more rapidly in the postwar period than most of the other regions of the country. Many servicemen who had been stationed at California bases during the war decided to settle in the state after being discharged, rather than returning to their home states. In addition, job growth sparked by the defense economy brought migrants from across the country to California. As in the rest of the country, the postwar baby boom also played a significant role in the state's population growth. While California's population grew by 88 percent between 1950 and 1970 (from 10.6

million to 19.95 million), the number of school-age children quadrupled during this period.⁵

California ranked fifth in population among the states in the 1940 census, following New York, Pennsylvania, Illinois, and Ohio. Comparison with Ohio illustrates California's dramatic growth in the postwar period. In 1940, the population of California was close to that of Ohio, with both states having slightly more than 6.9 million residents. Between 1940 and 1970, Ohio grew at the same rate as the country as a whole, about 54 percent, to 10.65 million. California's population nearly tripled during this same period, to almost 20 million, and was fast approaching a population twice that of Ohio. California passed New York to become the nation's most populous state in 1962.⁶ By this time, more than one in every 12 Americans lived in California.⁷

The Postwar Housing Crisis and Home Ownership

Marriage rates saw an immediate and dramatic rise at the end of World War II, with the discharge of several million soldiers from the military. More than 2.8 million new households were formed during the first two years after the war.⁸ High rates of new household formation continued into the 1950s, with the number of marriages in the United States peaking at 4.3 million in 1957.⁹ The birthrate also increased during this period, from 2.2 births per woman in the 1930s to 3.5 by the late 1950s.¹⁰

All of these returning veterans and newly married couples needed housing, which was in desperately short supply. Housing construction had been in a severely depressed state since the stock market crash of 1929. Government

officials estimated an immediate need for five million housing units after the war and more than 12 million over the following ten years.¹¹ During the first several years after the war, millions of young adults and families had no choice but to double up with relatives, making the best of crowded conditions until more housing became available. Others lived in barns, garages, disused busses and streetcars, and anything else that could be pressed into service as shelter.¹²

The postwar housing crisis was alleviated over the course of several years by the building industry's application of mass-production techniques to the construction of houses, and by the construction of housing tracts of unprecedented scale. These developments in housing construction, discussed in more detail in Chapter 8, fueled a dramatic increase in home ownership. Nationwide, the rate of home ownership remained relatively stable during the first three decades of the 20th century, ranging from about 45 to 48 percent of all households.¹³ The rate of home ownership dropped slightly during the 1930s, as the Depression brought a surge in foreclosures and reduced the number of new buyers entering the housing market. After the war, however, home ownership soared to unprecedented levels. Between 1940 and 1950, the number of home-owning families increased by more than eight million, to 55 percent of all households. Most of this growth occurred in the second half of the decade, when more than five million new single-family houses were built.¹⁴ By 1960, home ownership in the United States had surpassed 60 percent of all households.¹⁵

The Federal Housing Administration's mortgage guarantee program, established in the 1930s, was instrumental in making this surge in home ownership possible. The availability of long-term, self-amortizing mortgages with low

Rodger Young Village

Military surplus Quonset huts were a popular form of temporary housing in the immediate postwar years. In July of 1946, the Navy base at Port Hueneme in Ventura County put up 800 Quonset huts for sale to the public. More than 1,000 veterans camped out for the opportunity to buy one.¹⁶ In Los Angeles, the city's Housing Authority established Rodger Young Village in the spring of 1946, on the site of a former military airfield in Griffith Park. Built in 60 days, Rodger Young Village included 750 Quonset huts modified for use as duplexes, with each unit having two bedrooms, a bathroom, kitchen, and a small living and dining area.¹⁷ More than 13,000 Los Angeles area veterans applied for the 1,500 family housing units.¹⁸ In addition to housing, the village had its own shops, laundry, chapel, and library.¹⁹ Under the Housing Authority's management, the village was also an early and unusual experiment in racial integration. White, black, Hispanic, and Asian families all lived in the village, with no internal pattern of segregation.²⁰ Intended as a temporary response to the housing crisis, Rodger Young Village remained in use for nearly a decade, being dismantled in 1954 when the housing crisis had largely passed.²¹



Quonset hut duplex residences at Rodger Young Village, 1950. (Leonard Nadel, photographer. Courtesy of the Los Angeles Public Library.)

down payments made buying a house as affordable as renting for many. The federal government's involvement in the home mortgage market made it possible for builders to address the postwar housing crisis by constructing single-family houses rather than apartment buildings. As Robert Fishman noted in his study of suburbanization, "this program, which was designed to stimulate modest growth for a moribund industry, in fact created the conditions for explosive suburban growth when the economy improved."²² Several other writers have referred to the FHA program as revolutionary in its effect on the postwar housing industry and the growth of suburbs.²³ By 1957, FHA had provided almost \$30 billion in mortgage insurance, covering 4.5 million homes.²⁴ In addition to FHA financing, the Servicemen's Readjustment Act of 1944 (more commonly known as the G.I. Bill) included a mortgage guarantee program for veterans. Managed by the Veterans Administration (VA), the program allowed veterans to buy houses with no down payment. Along with the tax deduction for mortgage interest (established in 1939), these government programs paved the way for the postwar growth in home ownership and suburban development.

The Postwar Economy

The United States experienced nearly three decades of sustained economic growth following World War II. With much of the rest of the industrialized world ravaged by the war, the U.S. exported food and manufactured goods across the globe. Domestic spending on both industrial and consumer goods also drove postwar economic expansion. By 1973, the nation's gross national product had grown to three times what it had been in 1948.²⁵

In the early postwar years, the high rate of household formation and the baby boom led to

a dramatic increase in the purchase of such items as household furniture, appliances, toys, and children's clothing. While overall consumer spending increased by 60 percent during the second half of the 1940s, spending on furniture and appliances increased by 240 percent.²⁶ Americans purchased more than 11 million television sets and 20 million refrigerators from the end of the war to 1951.²⁷ Sales of lawn mowers, that essential tool of suburban life, increased nearly tenfold, from about 140,000 in 1946 to 1.3 million in 1951.²⁸

In California, wartime growth of industrial and military facilities set the stage for postwar prosperity. Military appropriations to the state remained high throughout the Cold War years (and the hot wars in Korea and Vietnam), particularly for high-tech research and development. As a leading center for the aircraft and aerospace industries, Southern California benefitted enormously from military spending. Defense contracts and military bases became a pillar of the state's economy, along with manufacturing, agriculture, tourism, and the television and movie industries. In addition, growth itself became an important part of the California economy, sustaining a robust construction sector as well as increased consumer spending.

Transportation and Suburban Growth

Automobile purchases were another large part of the increase in consumer spending during the postwar years. Annual domestic production of automobiles rose from two million in 1946 to eight million by 1955, while motor vehicle registrations more than doubled, from about 26 million in 1945 to 54 million in 1956.²⁹ This growth in auto ownership coincided with a decline in the use of busses, streetcars, and trains. Transit ridership within metropolitan areas in the U.S. peaked in 1947 and began a

long, steady decline thereafter.³⁰ The geographical spread and low population densities of the postwar suburbs, along with the increasing dispersion of employment and shopping centers, made transit impractical for most people living outside the older and denser urban areas. Los Angeles led the nation's major cities in both rates of auto ownership and abandonment of public transportation. By the end of the 1950s, 95 percent of all trips in Los Angeles were by private automobile.³¹

As in the rest of the United States, much of the postwar housing boom in California predated the construction of the interstate freeway network. In general, freeway construction was neither a cause nor a means of metropolitan expansion in the late 1940s and 1950s. President Eisenhower signed the Federal Aid Highway Act into law in 1956, and many of California's most important freeways remained under construction more than a decade later. Where freeways were planned before or shortly after the war, development was drawn to those corridors, even when the actual construction of the freeway was years away. In many other areas, builders anticipated that existing roads and highways would be sufficient or would be improved and expanded to accommodate future growth. Only a few of the earliest freeways, such as the Arroyo Seco Parkway in Los Angeles and the North Sacramento freeway were open by the end of the 1940s.

The substantial extension of metropolitan freeways in the late 1960s and 1970s brought about a second phase of suburban growth, more extensive than the initial postwar boom.³² At least initially, the new freeways allowed commuters to live farther from their places of work without a significant increase in commuting time. The benefit of more distant but less expensive land (and therefore more affordable housing) began to compete with the

benefit of proximity to employment centers, leading to the explosive physical expansion of metropolitan areas.

The migration of jobs from cities to suburbs followed close behind the growth in suburban population. More than three quarters of all new manufacturing and retail jobs created between 1950 and 1970 were located in suburban areas.³³ By 1973, suburban employment exceeded city employment.³⁴ This later phase of postwar growth saw the beginning of "edge cities," with mid-rise and even high-rise office buildings and shopping malls forming new employment and retail centers adjacent to freeway interchanges, well beyond not only the older central cities and streetcar suburbs, but much of the earlier phase of postwar suburban growth as well.³⁵ For example, while the East Bay suburbs between Oakland and San Jose experienced dramatic growth from the mid-1940s through the 1950s, by the late 1960s the most rapid growth was occurring in the east-of-East Bay communities along the Interstate-680 corridor, such as Concord, Walnut Creek, and Pleasanton. Similarly, as the San Fernando Valley and the south suburbs of Los Angeles approached build-out by the mid-1960s, housing construction moved west into Ventura and especially south to Orange County, as well as the Inland Empire communities in Riverside and San Bernardino counties.

The postwar metropolitan region is often imagined as a central city dominated by a downtown business district and surrounded by bedroom suburbs. However, this image was accurate only briefly, and then only as a snapshot of a constantly evolving metropolis. By the mid-1970s, most American metropolitan areas had become complex and multi-centered entities, with housing, retail, and employment widely dispersed across an area far greater than that of prewar metropolitan areas.

4

Suburbia and its Critics

The postwar suburban boom fascinated but also appalled many urban theorists, reform advocates, planners, architects, and others. Both the landscape and the society of suburbia have been critiqued, and often condemned, by a succession of commentators, beginning in the immediate postwar years and continuing to the present. The critics have reacted to the scale of postwar tract construction, the rapid loss of farmland and other open space, the lack of architectural variety, and the perceived (or imagined) social ills of the new suburbs. Some predicted that the new tracts of inexpensive houses built shortly after World War II would become the slums of the future.

Architectural historians and historic preservation advocates who study postwar housing will inevitably encounter much of this critical literature or references to it. A brief overview of some of the major writings on postwar suburbia is therefore included here. While it may not be germane to the task of evaluating specific properties for National Register eligibility, some familiarity with this literature may at least provide an object lesson in the dangers of allowing bias and preconception to cloud the evaluation of historical and architectural significance.

Aesthetic and Environmental Critique

The postwar period saw an unprecedented transformation of the landscape around the fringes of every major metropolitan area in the nation. Throughout the 1950s, one million acres of rural or undeveloped land per year (an area twice the size of Orange County) were converted to housing tracts, shopping centers, and other types of development.¹ In addition to

the loss of open land and scenic vistas, this development raised a host of environmental concerns.

Larger and more powerful earth-moving equipment came into widespread use after World War II, giving builders more power to radically reshape the land. Builders often made dramatic modifications to the land in their developments, sometimes removing hilltops or converting hillside slopes into a series of terraces to provide flat building sites. In preparation for the construction of new housing tracts, it was common for builders to not only clear the site of all existing trees and other vegetation, but also to fill wetlands and channelize creeks and streams, sometimes burying these watercourses in enclosed culverts. The clearing of vegetation not only diminished habitat for birds and other wildlife, but caused extensive soil erosion and the silting of streams. The filling of wetlands increased the frequency and severity of flooding, by eliminating areas that could store and absorb storm water.

Numerous writers have criticized the postwar suburb as monotonous and ugly as well as environmentally destructive. The author and planning advocate Lewis Mumford was one of the most strident critics of the postwar suburban landscape. Mumford wrote on architecture and urban issues for the *New Yorker* magazine for three decades, and won a National Book Award for *The City in History*, published in 1961.² He was also a founding member of the Regional Planning Association of America, which advocated a greater role for urban and regional planners in addressing the problems of the modern metropolis.

Land cleared and graded for the construction of tract houses, Los Angeles County, 1955. (Howard D. Kelly, photographer. Courtesy of the Los Angeles Public Library.)



Mumford was particularly concerned about urban form and legibility, and was appalled by the vast suburban agglomerations encircling America's cities. Distressed by the loss of greenbelts between cities and between city and suburb, Mumford saw postwar suburban growth as destructive of both the city and the countryside. He cited the Santa Clara Valley, including San Jose and surrounding towns, as a particularly egregious example of formless growth that had none of the virtues of either the city or the rural landscape.³ While tolerant of earlier streetcar suburbs, Mumford described postwar suburban growth as "cancerous."⁴

One of the strongest attacks on the aesthetics of suburbia was made by Peter Blake, an architect, critic, and editor of *Architectural Forum*. Blake decried the "uglification" of the United States in *God's Own Junkyard*, published in 1964.⁵ The author made his points primarily through the use of illustrations, particularly by juxtaposing images of his aesthetic ideal with examples of contemporary ugliness. Blake railed against such aesthetic crimes as billboards, overhead utility wires, junkyards, and freeway construction. Directing much of

his vitriol toward postwar tract housing, Blake condemned "the massive, monotonous ugliness of most of our suburbia."⁶ The book includes streetscape views of new housing tracts with no mature vegetation and Southern California hillsides that had been bulldozed into terraces in preparation for more houses. Aerial views of houses under construction in Lakewood in Los Angeles County, originally commissioned by the developers to proudly show their methods of mass-production, are used by Blake to illustrate the destruction of the landscape.⁷ One of the author's most telling comparisons shows an aerial view of a housing tract in the Bay Area opposite a similar view of an automobile graveyard. The junked cars, arranged in long rows along gently curving pathways, resemble the tract houses along gently curving streets. Another pair of photos vividly illustrates Blake's contempt for the suburbs, comparing rows of uniformly spaced, identical tract houses to the uniformly spaced, identical grave markers of a military cemetery.

William Bronson wrote a very similar book, *How to Kill a Golden State*, focusing just on California.⁸ A chapter titled "Ticky-Tacky"



Block after block of similar houses on a treeless plain in Los Angeles County, 1948. (Los Angeles Residences – Tract Houses Series. Courtesy of the Los Angeles Public Library.)

criticized the spread of new housing tracts across the landscape and the resulting loss of open space and scenic vistas. Branson was particularly critical of the filling of tidelands in San Francisco Bay, devoting a chapter to the subject. He condemned the development of Foster City in San Mateo County, a new city of almost five square miles built on fill at the foot of the San Mateo-Hayward Bridge.⁹

The stark visual quality of many postwar housing tracts was somewhat mitigated over time by tree growth, as saplings eventually matured to form leafy canopies over the streets. In addition, the uniformity of the houses declined over time as owners expanded or remodeled their tract castles. (While these additions and renovations alleviated the criticism of postwar tracts as monotonous, they did not necessarily improve the aesthetic quality of the houses.)

Social Critique

Critics decried the social homogeneity of the new suburbs, each filled with white families of similar age and similar means. These communities were described as breeding grounds for conformity, consumerism, social

isolation, and withdrawal from civic life. Mumford's condemnation of the postwar suburb went well beyond the lack of planning:

*A multitude of uniform, unidentifiable houses, lined up inflexibly, at uniform distances, on uniform roads, in a treeless communal waste, inhabited by people of the same class, the same income, the same age group, witnessing the same television performances, eating the same tasteless pre-fabricated foods, from the same freezers, conforming in every outward and inward respect to a common mold.*¹⁰

Postwar housing tracts became popular subjects of study among sociologists and psychologists, as well as novelists and screenwriters, who identified a host of pathologies behind the trim houses and well-kept front lawns. Nonfiction books like *The Lonely Crowd* (1950) addressed issues of conformity and individuality, as did novels such as *The Man in the Grey Flannel Suit* (1955).¹¹ One of the most popular and influential books on this theme was William Whyte's *The Organization Man* (1956), a study of the rapidly expanding managerial and technical class

employed by large American corporations.¹² Whyte was critical of excessive deference to the Organization as stifling of individual initiative, but his book is analytical and dispassionate, without the alarmist tone of many other works.

Most of Whyte's book is devoted to the Organization Man at work, but Part VII is titled "The New Suburbia: Organization Man at Home." The author identifies postwar housing tracts as the dormitories of the Organization and describes the ways in which these tracts serve the needs of the Organization Man and reflect his values.¹³ A key characteristic of Organization Men is their mobility. They are transients, loyal to their organization rather than to any particular place. They generally don't return to their hometowns after graduating from college, and they expect to relocate several times in the course of their careers. Whyte noted that turnover among the owner-occupied housing in the new Chicago suburb of Park Forest averaged 20 percent per year, a startlingly high figure compared to small towns with stable populations, but typical of many postwar suburbs.¹⁴

To the Organization Man (and his wife), a house is a commodity. A custom house appeals to only a narrow segment of the market and is therefore difficult to sell when the family is forced to relocate. The interchangeable house within a new tract, on the other hand, is nearly as easy to sell as a used car. A similar house in a similar tract can be found in any other city to which the Organization Man might be sent, and this familiarity helps to ease the transition.

The periodic relocation to a new community is also aided by certainty that the suburban tract into which the Organization Man moves will be populated by families similar to his own. Whyte describes suburbia as "the second great melting pot," where tradition no longer matters and the family name has no cachet.¹⁵

The new suburbanites frequently left their ethnic identity behind when leaving the old Irish, Italian, or Polish urban neighborhoods, becoming simply (white) Americans. Urban ethnic neighborhoods and institutions withered as their residents dispersed to the suburbs. The tendency to discard one's ethnicity was even more pronounced in California than elsewhere in the United States. Many of the state's postwar suburbanites were new arrivals from other parts of the country, and left their family's ethnic identity on the other side of the Rocky Mountains.

One of the most critical psychiatric analyses of the postwar suburb was *The Split-Level Trap*, written by Richard Gordon and others and published in 1961.¹⁶ The authors studied the residents of Bergen County, New Jersey, near New York City. Extrapolating from their case studies to construct an overall indictment of the suburbs, the authors cited a high rate of stress-related illnesses, juvenile delinquency and other problems, and concluded that suburbia should be renamed "disturbia."¹⁷

The Split-Level Trap compares suburban Bergen County to rural Cattaraugus County in Western New York State. Cattaraugus County, characterized by small towns and farms, was selected as representative of non-urban areas with a less mobile population. Chapter 1 notes that the proportion of hospital patients being treated for high blood pressure was more than twice as high in Bergen than in Cattaraugus County, while the proportion being treated for ulcers was more than three times as high.¹⁸ These conditions are ascribed to the suburban residents' greater spatial and social mobility, noting that "there is a sharp, unrelenting competition to get ahead" that is absent or much reduced in Cattaraugus County.¹⁹

The authors go on to lament absent fathers who spend long hours at the office rather than

at home (and face increasingly long commutes to and from work), the decreasing parental requirement that children and adolescents work for their rewards, and the substitution of material goods for parental guidance and affection. They conclude that “the suburbs are full of obedient parents and spoiled, lazy, materialistic children.”²⁰ This may seem an exaggeration to modern parents, whose children are equipped with electronic gadgetry barely imagined in the early 1960s, but is indicative of the anxiety that accompanied the period’s unprecedented prosperity. This prosperity was a startling new phenomenon for many, following a decade-long depression and several years of war. Parents were often conflicted, wanting their children to have a more comfortable childhood than they had, while fearing that these same comforts might make the next generation soft or spoiled.

The related issue of juvenile delinquency, or the fear of future juvenile delinquency, became a common concern among residents of the postwar suburbs, as well as local politicians and police forces. These communities swarmed with young children in the 1950s. In Lakewood, for example, one-quarter of the residents were under ten years old in 1953.²¹ Parents in Lakewood and elsewhere worried about what their communities would be like in the 1960s, when a quarter of the residents would be teenagers. In reality, communities such as Lakewood never had such a high proportion of adolescents, as many residents moved to larger houses in other communities by the time their children had become teenagers. Places like Lakewood, Levittown, and other large tracts of small postwar houses came to be associated with families at a particular stage of life: young parents with young children.

The first of the baby boom children reached their teenage years in the late 1950s, and the

Satirizing the Suburbs

One of the more humorous critiques of the postwar suburb was the satirical novel by John Keats, actually more of an extended rant, titled *The Crack in the Picture Window* (1957). The story is set in Rolling Knolls, a fictional tract in suburban Maryland, where John and Mary Drone buy a new house at 13 Bataan Boulevard. The author’s contempt for the suburbs is made clear in the first sentence of the introduction: “You too ... can find a box of your own in one of the fresh-air slums we’re building around the edges of America’s cities.”²² Before the end of the same paragraph, Keats has described the new housing tracts of the period as “conceived in error, nurtured by greed, corroding everything they touch.” Later in the book, the “jerry-built postwar developments” are compared unfavorably to the hobo jungles of the 1930s.²³

Upon moving into their new community, the Drones, along with neighbor couples the Amiables, the Spleens, and the Fecunds, quickly find that their new houses are poorly built and much too small. Privacy is completely lacking, both within the houses and among the neighbors. The story’s salesman proudly notes that the picture window in each of the tract’s houses is a feature borrowed from the California Ranch house. Rather than framing views of the ocean or mountains, however, the picture windows of Rolling Knolls look across the street into the neighbors’ picture windows.

Chapter three portrays the isolation of women in Rolling Knolls, whose days revolve around child care and visiting with neighboring housewives of identical age, income, and situation. The women’s discussions focus on potty training to such a tiresome degree that Mary Drone fears she is going crazy for lack of intellectual stimulation. Keats describes the “everyday monotony” as “crushing Mary’s spirit into the shape of a desiccated persimmon.”²⁴

The Drones later trade up to a split-level house, “especially designed for split personalities,” where they willingly lock themselves into a lifetime of debt and live anxiously ever after.²⁵

ranks of the teenage and young adult segment of the population expanded rapidly through the 1960s. The young had more leisure time and more money to spend than their counterparts of previous generations, while access to cars provided greater freedom from adult surveillance. A distinct youth culture had emerged by the end of the 1950s, with its own slang, styles of dress, and music. This increasingly separate youth culture caused much concern and some bewilderment among the older generation, adding to fears of juvenile delinquency. While the worst of these fears never came to pass, the youth-led social upheavals of the later 1960s could be seen as a wholly unanticipated form of generational rebellion among the children born in the early baby boom years.

Many writers have noted a widespread malaise among women in suburbia. The authors of *The Split-Level Trap* observed that many such women are “vaguely dissatisfied with life but not sure why.”²⁶ This theme was taken up and elaborated by Betty Friedan her bestselling and extremely influential book, *The Feminine Mystique*, first published in 1963.²⁷ Defining “the problem that has no name,” Friedan describes the tendency among educated women of the 1950s to set aside career aspirations for the role of housewife, and the realization among many of these women (often with attendant feelings of guilt) that child-rearing and housekeeping are not sufficiently fulfilling. Friedan’s book is not specifically about the suburbs, but about American women of the postwar period in general. However, “the problem” was most pervasive in the suburbs, where almost all the adults were married and fewer women worked outside the home compared to women living in cities.

Friedan refers to the postwar suburbs as “those ugly and endless sprawls which are

becoming a national problem.”²⁸ In what may have been her sole foray into architectural criticism, Friedan objected to the modern, open-plan house with its centrally located kitchen, which provided no place where the housewife could be alone. In addition to the lack of privacy, such houses required more diligent housekeeping, since there was no way for the housewife to avoid seeing whatever mess there was and feeling compelled to clean it up.²⁹

Responses to the Critics

The critics of suburbia have generally been urban intellectuals, and their writings tend to reflect a class bias in addition to disdain for the suburbs as a physical and social environment. Scott Donaldson, in his 1969 defense of suburbia, *The Suburban Myth*, describes the critical literature as consisting of “whopping irrelevancies, galloping over-statements, and poorly concealed animosities.”³⁰ Donaldson also notes that the postwar suburb is judged “by the impossibly high standards of a nonexistent utopian past.”³¹

In discussing Allen Park, a new suburb outside of Detroit, architectural historian Leonard Eaton decried the suburbanites’ indifference to the city’s cultural institutions:

*Allen Park is hardly conscious of the museums, theaters, concerts, and general intellectual stimulus offered by Detroit. One wonders about the children growing up in Allen Park. Will they be forever oriented to suburbia and ignorant of the potentialities of the city? It is a terrifying possibility.*³²

In rebuttal, and confirming Donaldson’s comment on the use of unfair comparisons, it could be noted that generations of city residents never patronized their cities’ museums, opera houses, or symphony halls. As indicated by Eaton’s remark, part of the alarm over the

postwar suburbs had to do with the connection between suburban growth and the decline of America's older cities, particularly in the Northeast and Midwest. Many of these cities lost a substantial portion of their middle-class residents to the suburbs (and to metropolitan areas in the South and West), leaving behind a smaller urban population with a higher proportion of low-income residents. The table below lists the largest population losses, ranked by percentage, in major American cities between 1950 and 1970:³³

<u>Population loss, 1950-1970</u>		
<u>City</u>	<u>Pop. loss</u>	<u>Pct. decline</u>
Providence	70,000	28%
St. Louis	235,000	27%
Pittsburgh	157,000	23%
Boston	160,000	20%
Buffalo	117,000	20%
Cleveland	164,000	18%
Detroit	339,000	18%

The migration to the suburbs was seen as contributing to urban decline and the attendant problems of concentrated poverty, abandoned buildings, and a shrinking municipal tax base.

In spite of the critics, millions of American families voted with their feet (or in this case, their cars), leaving the cities for new suburban housing tracts. The primary motivation was the opportunity for home ownership. In a society where identity is increasingly defined by lifestyle and patterns of consumption rather than occupation, buying a house transformed the apartment-dwelling proletarian into a proud (if anxious) member of the middle class, even as the husband continued to work on an assembly line or construction site. As Barbara Kelly noted in her study of Levittown, "home ownership no longer signified middle-class status, it conferred it."³⁴ Bill Griffith, creator of the comic strip *Zippy*, grew up in Levittown,

New York and recalled what the suburban dream meant to his parents:

*My mother always told me that for all the drawbacks Levittown had culturally, she still couldn't believe she owned her own house. She came from a family that didn't have much money, and so did my father, and here they were in their own house. It was a miracle to them.*³⁵

For some blue-collar men, part of the ascension to the middle class involved leaving behind a lifestyle in which leisure time centered on the neighborhood tavern rather than the home. In *Holy Land*, D.J. Waldie describes the effect on his parents' generation of moving to the new community of Lakewood:

*Despite everything that may have been ignored or squandered here, I believe a kind of dignity was gained. More men than just my father have said to me that living here gave them a life made whole and habits that did not make them feel ashamed.*³⁶

Waldie goes on to note that "my parents and their neighbors in the 1950s understood, more generously than Mumford, what they had gained and lost by becoming suburban."³⁷

Many of these new suburbanites, or their parents, experienced unsettled lives and irregular employment during the Depression. Also, the migration to California was in many cases born of desperation as well as opportunity. Waldie's observations on what such people had gained and lost warrant quotation at length:

Some of the men and women in my neighborhood had lived part of their childhood on the outskirts of cotton towns in tents provided by the Farm Security Administration.

*Some had lived in tarpaper shacks
among the oil fields outside of Bakersfield.
The shacks didn't have indoor plumbing.*

*Some had been the first of their family to
graduate from high school.*

*Okies who grew up in California learned
to hide their border state twang.*

*Sometimes, it would reappear after a
few drinks among the couples my parents
invited over to watch television or play
cards.*

*Some of the couples gave up their
Pentecostal religion for milder forms of
faith.³⁸*

The mention of indoor plumbing is important. In 1940, 45 percent of the nation's housing units lacked complete plumbing, defined by the Census Bureau as hot and cold piped water, a bathtub or shower, and a flush toilet. By 1960, with the construction of more than 20 million new housing units since the end of World War II, this figure had fallen to 16.8 percent. The figures for California are much lower, with 16.6 percent of housing units lacking complete plumbing in 1940, declining to 5.1 percent by 1960.³⁹ However, the nationwide figures are relevant to California, since a large portion of the state's residents in 1960 came from other parts of the country. For many, the suburban housing available in the postwar period offered substantial improvements in plumbing, heating, and kitchen equipment.

Of all the sociological studies of postwar suburbia, *The Levittowners* by Herbert Gans remains one of the most frequently cited.⁴⁰ Gans moved to the New Jersey Levittown outside of Philadelphia shortly after its opening, living there as a participant-observer for two years, from October 1958 to September 1960. Much of his book describes the frenetic process of organizing new social and

community groups at a moment when a society had to be formed whole-cloth by residents who were new to Levittown and new to each other. Levittown chapters of groups like the Rotary, American Legion, League of Women Voters, Boy and Girl Scouts, and many others were forming at this time, in addition to religious congregations and numerous clubs and informal groups of more strictly social and neighborhood character.

Attuned to class distinctions, Gans describes how the residents of Levittown used these organizations to sort themselves by social class. Blue-collar men, for example, played leading roles in the volunteer fire department and coaching youth sports, while white-collar men generally found local chapters of the nationwide service clubs better suited to their interests and aspirations. In spite of the apparent homogeneity of the residents, Gans asserts that their similarity in incomes masked significant distinctions in class status and outlook. For example, while a young professional at the start of his career and a skilled laborer in his thirties might have similar incomes, their future prospects are markedly different. While the former might see Levittown as a temporary step on the way to a series of larger houses in increasingly prestigious neighborhoods, the latter would be more likely to view owning his own house in Levittown as achievement of the American Dream. At the same time, Gans refutes the notion that social and economic homogeneity is a strictly suburban phenomenon, noting that "people do not live in the political units we call 'cities' or 'small towns'; often their social life takes place in areas smaller than a census tract. Many such areas in the city are about as homogeneous in class as Levittown."⁴¹

Gans defends the Levittowners as neither bored nor conformist, and certainly not

unhappy. He notes that his neighbors “enjoy the house and outdoor living and take pleasure from the large supply of compatible people, without experiencing the boredom or malaise ascribed to suburban homogeneity.”⁴² Some of the problems attributed to suburban residents by sociologists and psychologists were hardly confined to the suburbs. As Peter Rowe noted in *Making a Middle Landscape*, “the senses of loneliness, anxiety, and estrangement that had been epitomized by suburban life were well and truly ascribed to the modern condition in general.”⁴³

Like many other writers, Gans does recognize that women were more likely than men to be bored and lonely in the suburbs. Women often felt more strongly than men the separation from family, after living in greater proximity to extended-family members in urban neighborhoods or on farms. The isolation from their mothers, aunts, or other older female relatives made it more difficult for young wives to acquire traditional family knowledge in areas such as childrearing and cooking. Instead, the women of Levittown found themselves in a community of peers who often knew no more about these subjects than they did. Although the assertion was not made by Gans, others have suggested that this isolation from sources of family tradition gave rise to the market for convenience foods and self-help books of all kinds, including Dr. Benjamin Spock’s famous *Common Sense Guide to Baby and Child Care*, first published in 1946.⁴⁴

The View from the Present

The legacy of the postwar housing boom is mixed, or at least still subject to differing interpretations. In all but a few special cases, the new housing tracts did not become slums, as predicted by the most pessimistic of the critics. However, the environmental, social and

economic effects of sprawl have taken on greater importance in recent years, informing debates over global warming and sustainability in the face of the depletion of natural resources (particularly oil, and in California and the West, also water).

In his sweeping condemnation of modern suburbia, James Kunstler continues in the tradition of Peter Blake, John Keats, and other critics. Kunstler’s 1993 diatribe, *The Geography of Nowhere: The Rise and Decline of America’s Man-Made Landscape*, decries the lack of aesthetic and social vision and the dominance of market forces in creating the postwar suburban landscape.⁴⁵ Kunstler is joined in his critique by a loose coalition of architects and planners known as the New Urbanists. Andres Duany and Elizabeth Plater-Zyberk, two Miami architects who are leaders of the New Urbanist movement, published a manifesto in 2001 with a title quite similar to that of Kunstler’s book: *Suburban Nation: The Rise of Sprawl and the Decline of the American Dream*.⁴⁶ The New Urbanists call for a return to pedestrian-oriented neighborhoods of higher residential density as an alternative to suburban sprawl.

Taking up a rather lonely position on the opposing side is Robert Bruegmann. In *Sprawl: A Compact History*, Bruegmann argues that declining residential density in metropolitan areas is a process that can be seen in all affluent societies, and that this process preceded the postwar building boom by centuries.⁴⁷ Furthermore, the author presents evidence that this process may have begun to slow or even reverse course in many American cities.⁴⁸ Bruegmann sees suburban growth as the democratization of access to amenities that were formerly available only to the wealthy, and levels the familiar charge of elitism against suburbia’s critics. Tending toward a libertarian view, he asserts that the market responds to

demand and that people have sought and found what they wanted in the suburbs. The opponents of sprawl counter that people are not actually provided the full range of housing choices. Rather, the choices available are circumscribed by government policy and the disproportionate power of builders, bankers, and others who help to determine the patterns of metropolitan growth. Although the opponents of sprawl appear to be dominating the debate in the academic arena, it is not yet clear whether their advocacy is contributing to any significant changes in public policy or the housing market.

In addition to the continuing arguments over aesthetics and sustainability, the question of whether suburban life in the 1950s represented a period of idyll or dystopia is still being debated, as a backdrop to the ongoing culture wars.⁴⁹ Among the greatest social transformations that occurred in America between the mid-20th century and the present are changes in the role of women in society and in the workforce, as well as changes in family structure and family size. The median age of women at the time of their first marriage fell to 20.5 years in 1947 and remained between 20.1 and 20.5 through 1964, gradually rising thereafter to a median age of 25.1 by 2000.⁵⁰ Women were getting married younger, having children sooner, and having more children in the 20 years following the end of World War II

than at any time since. In 1953, only 27 percent of married women worked outside the home, and only nine percent of those living in the suburbs.⁵¹ In contrast, by 2009 almost 60 percent of American women were in the workforce.⁵²

The post-World War II housing tract was built for a specific type of family, consisting of two parents and their children. This is no longer the predominant family type in America. Single-person households make up a much greater proportion of all households today, including the young unmarried, the divorcee, and the retired widow or widower. There are also many more single-parent families, due in part to higher rates of divorce. In addition, greater longevity has resulted in a much higher number of older couples whose children have grown and formed their own households. At the same time, many recent immigrant groups came from cultures in which the multi-generational household is still common. These demographic and social trends have broadened the market for different types of housing. As a result, the three-bedroom suburban tract house is increasingly seen as one housing option among many, appropriate to particular family types at a particular stage of life, rather than as the social norm to which all Americans aspire. This contributes to the sense that the postwar housing tract is an *historic* artifact, the product of a bygone era.

5

The Segregated Suburbs

The patterns of racial segregation that are a characteristic feature of metropolitan areas in the United States are largely a product of wartime migration of African-Americans to the cities, followed by the postwar migration of whites from the cities to the suburbs. African-Americans comprised slightly less than two percent of California's population in 1940. Half of the state's 124,000 African-Americans lived in Los Angeles, with much smaller numbers living in Oakland, San Francisco, San Diego, and other cities. Also at this time, there were almost 94,000 California residents of Japanese ancestry and nearly 40,000 of Chinese ancestry. Other minority groups were not separately enumerated in the 1940 census.¹

On the eve of World War II, racial segregation was the norm in employment and housing, as well as in the United States military. Calling for desegregation of both the armed forces and defense industries, civil rights leader A. Philip Randolph and others planned a march in Washington for July 1941. In an agreement reached between Randolph and President Roosevelt, the march was called off and the President issued an Executive Order prohibiting racial discrimination in defense industries. (The armed forces remained segregated until 1948.) In spite of Roosevelt's Executive Order, many defense industries resisted hiring African-Americans in the early years of the war. However, by 1943 severe labor shortages created opportunities for minorities to enter the industrial workforce. Seeking jobs in these expanding defense industries, 340,000 African-Americans moved to California between 1942 and 1945.² The following table shows the increase in African-American

population of the state's four largest cities between 1940 and 1950:³

	<u>African-American population</u>	
	<u>1940</u>	<u>1950</u>
Los Angeles	64,774	171,209
Oakland	8,462	47,562
San Francisco	4,846	43,502
San Diego	4,143	18,364

While employment opportunities for minorities increased during the war, housing remained rigidly segregated. In Los Angeles, African-Americans were confined primarily to the south-central part of the city, but also moved into the Little Tokyo neighborhood adjacent to downtown following removal of the Japanese to internment camps. In the Bay Area, African-Americans moved into West Oakland, Richmond, and a small number of San Francisco neighborhoods. Segregation exacerbated the general wartime housing shortage, forcing severe crowding in African-American neighborhoods. In the south-central district of Los Angeles, for example, the population increased by more than 40,000 during the war, while property owners in adjacent white areas blocked the physical expansion of the district by refusing to sell or rent to minorities.⁴

After the war, the suburban housing boom and "white flight" would dramatically alter the racial demographics of American cities. As white families moved to new suburban tracts, the cities became increasingly associated with minority residents, particularly African-Americans, who were largely prevented from joining the migration to the suburbs. In the city of Oakland, for example, 160,000 white

residents moved out of the city between 1955 and 1966.⁵ The city's overall population fell by about 23,000 between 1950 and 1970, with an influx of minorities making up for most of the loss of white residents. Housing discrimination against Hispanics, Asians, and Jews, while present, was not as widespread or as vigilantly enforced as discrimination against African-Americans, allowing these minority groups somewhat more opportunity to buy houses in the booming suburbs. As a result, African-Americans became increasingly segregated in inner-city neighborhoods. The Watts section of Los Angeles, for example, had approximately equal numbers of black, white, and Hispanic residents in 1940. After the war, the nearly complete exodus of white and Hispanic residents led to Watts becoming 95 percent black by 1958.⁶

Open Housing Laws: Legislative and Judicial History

Prior to 1948, minorities were routinely excluded from new housing tracts through the use of restrictive covenants. People of Jewish faith were often excluded along with all non-Caucasians. Restrictive covenants, attached to the property deed, prohibited homeowners from selling or renting to minorities. These restrictions were placed on the property by the original subdivider or developer, and remained in force as the property was resold.

The United State Supreme Court ruled that these restrictive covenants could no longer be enforced in its 1948 decision in *Shelley v. Kraemer*. However, the ruling did not prohibit developers or individual property owners from refusing to rent or sell to minorities, and in practice housing discrimination continued long after the Supreme Court's ruling. Until the late 1950s, the code of ethics of the National Association of Real Estate Boards explicitly

required real estate agents to steer racial minorities away from white neighborhoods.⁷

In its 1953 decision in *Barrows v. Jackson*, the Supreme Court went beyond its 1948 ruling to find that property owners could no longer bring lawsuits against their neighbors for selling to minorities. The result was that while individual property owners were free to practice non-discrimination, others were equally free to discriminate. This was the status quo throughout the remainder of the 1950s and into the 1960s.

In November of 1962, President Kennedy issued an Executive Order prohibiting racial discrimination in all housing that received federal aid, including FHA and VA mortgage guarantees. Kennedy's successor, Lyndon Johnson, signed the Civil Rights Act in 1968. Title VIII of the Civil Rights Act prohibited racial discrimination in the rental, sale, or financing of residential property. By this time, however, every major American city had been transformed by the postwar housing boom, and the new suburbs that surrounded the cities were overwhelmingly white.

In addition to the actions of the federal government, the State of California has its own legislative and judicial history with respect to open-housing laws. Assembly member Jesse Unruh authored the California Civil Rights Act in 1959, which prohibited discrimination in all types of business on the basis of race, color, religion, ancestry, or national origin. Three years later, the state Supreme Court ruled that this law, frequently called the Unruh Act, applied to the sale of residential property.

The Unruh Act was followed in 1963 by the Rumford Act, which specifically prohibited racial discrimination by banks, real estate brokers, and mortgage companies. Opponents of open-housing laws, led by the real estate industry, placed an initiative on the ballot the



Marching for fair housing, 1963. (Herald Examiner Series. Courtesy of the Los Angeles Public Library.)

following year (Proposition 14), calling for repeal of the Rumford Act and other open-housing laws and prohibiting the state government from enacting such laws in the future.⁸ Proposition 14 passed by a two-to-one margin, but was later ruled unconstitutional by the state Supreme Court. The U.S. Supreme Court upheld that decision in 1967.

These laws and court rulings occurred in a context of nationwide actions to secure and extend civil rights for African-Americans and other minorities. In 1954, the Supreme Court ruled in *Brown vs. Board of Education of Topeka* that racial segregation in public education is unconstitutional. Overturning the doctrine of “separate but equal,” the Court opened the door to desegregation of public schools and universities. Integration was often resisted, and not infrequently with violence. In 1955, Dr. Martin Luther King, Jr. rose to nationwide prominence as the leader of the bus boycott in Montgomery, Alabama, calling for desegregation of the city’s busses and the hiring of African-American drivers. Amid growing efforts to secure voting rights and integration of public accommodations, King and others

organized a civil rights march in Washington in August 1963. It was here that King gave his famous “I have a dream” speech to more than 250,000 attendees, the largest single protest in American history up to that time. Civil rights marches, boycotts, sit-ins, and other forms of protest challenged not only state-sanctioned segregation in the South but also de facto segregation and discrimination across the country, including discrimination in housing.

Segregation: Policy and Process

Segregation in housing was facilitated by the United States government, through FHA and VA housing programs. Citing the perceived threat of integration to neighborhood stability and therefore stable property values, FHA refused to provide mortgage guarantees in racially mixed neighborhoods prior to the Supreme Court’s *Shelley v. Kraemer* decision. The agency’s underwriting manual specifically discouraged racially mixed or open housing developments. After *Shelley v. Kraemer*, FHA discontinued its requirement of restrictive covenants and dropped specific references to race from its underwriting manual, but in

practice the agency continued to insure segregated developments.⁹

FHA and VA mortgage guarantees were a form of subsidy that facilitated the postwar housing boom and the period's rapid increase in home ownership. However, that subsidy was largely unavailable to African-Americans. From 1934 through 1960, the federal government underwrote \$120 billion in new housing, but only two percent of this went to minorities.¹⁰ Los Angeles County was typical of the nation as a whole. From 1950 through 1954, 125,000 new houses were constructed using FHA financing and mortgage guarantees. Of these, only 3,000 were available to nonwhite buyers.¹¹ In San Leandro, a suburban community just south of Oakland in the Bay Area, FHA-insured mortgages totaled \$1.7 million in 1971. Not a single one of the beneficiaries of this insurance were African-American.¹² As Robert Self noted in his study of racial politics in Oakland, "the federal government dramatically democratized the housing market for whites while simultaneously enforcing a racial segregation that resembled apartheid."¹³

With few exceptions, postwar builders refused to sell houses in their tracts to minorities, even after dropping restrictive covenants. Few builders were willing to lead the way in challenging the customary practice of discrimination, even as the laws and court rulings of the 1950s and 1960s would have made it easier to do so. Instead, the task of challenging the status quo fell to minorities themselves. Most builders believed that it was not their responsibility to address the nation's social problems, and that if they adopted an open sales policy, whites would not buy and other builders who continued to practice discrimination would benefit at their expense.¹⁴

The exclusion of minorities from the suburbs was a remarkably thorough process.

Levittown on Long Island in New York State is probably the most famous of the postwar suburbs, and has come to be seen as the prototypical new community of the period. In 1960, it was the largest all-white community in the nation, with 82,000 residents and not a single African-American household.¹⁵

The situation was similar in California's postwar suburbs. In Lakewood, built near Long Beach from 1949 to 1953, the 1960 census counted only seven African-Americans among the community's 67,000 residents.¹⁶ The population of the San Fernando Valley increased from 300,000 to 700,000 during the 1950s, as orange groves and ranches gave way to tract houses. However, the African-American population of the Valley declined from 1,100 to 900 over this same period.¹⁷ Most of those 900 African-Americans lived in the communities of Pacoima and Sun Valley at the far eastern edge of the Valley. As late as 1980, when the population of Los Angeles County was 13 percent African-American, 53 of the county's 82 cities had African-American populations of one percent or less.¹⁸

In the Bay Area, the rigid enforcement of racial segregation can be seen in the East Bay. While three-quarters of the Oakland census tracts that bordered San Leandro had African-American majorities by 1970, in San Leandro African-Americans comprised less than one-tenth of one percent of the population.¹⁹ Similarly, suburban Fremont (located between Oakland and San Jose in the East Bay) had more than 100,000 residents in 1970, but fewer than 400 African-Americans.²⁰

A Notable Exception: Eichler Homes

Some postwar housing developers did maintain a policy of non-discrimination, selling houses to all qualified buyers without regard to race or other characteristics. The most well known of

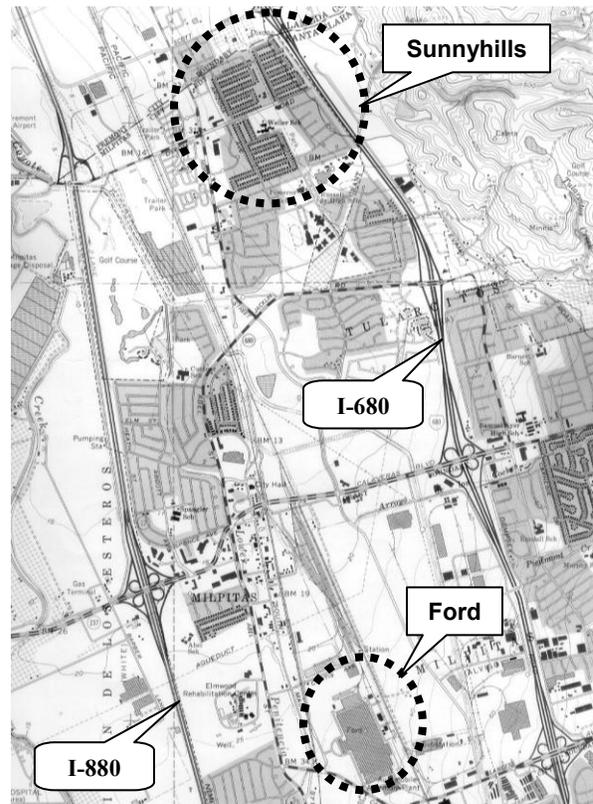
Sunnyhills: Challenging Racial Segregation in Postwar Suburbia

In 1955, the Ford Motor Company opened a new assembly plant in Milpitas, just north of San Jose, and at the same time vacated their older factory in Richmond, about 45 miles to the north. While white auto workers transferring from Richmond to Milpitas could find housing in the booming suburbs of the South Bay, this was not an option for Ford's African-American workers. None of the communities south of Oakland were open to African-Americans in 1955. In spite of the 1948 Supreme Court ruling that restrictive covenants based on race were not enforceable, a variety of tactics were employed to keep minorities out of the suburbs throughout the 1950s and 1960s.

At the time of Ford's relocation, United Auto Workers (UAW) Local 560 in Richmond had approximately 1,400 members, of which 200 to 250 were African-American.²¹ Fearing that a lack of nearby housing would cause the African-American members to give up their jobs at Ford or face long daily commutes from Richmond or Oakland, the UAW, in partnership with local builders, developed Sunnyhills as a housing tract open to all races. Overcoming numerous obstructions, the union and the builders created a successful integrated community which provided minority industrial workers an opportunity for home ownership.²² The San Francisco Chronicle described the tract as "the first subdivision in the Bay Area where Negro families will be sold homes without racial discrimination."²³

Constructed in several phases from 1955 through the early 1960s, Sunnyhills included about 900 houses when completed. The tract also included a union-sponsored community center. The layout of the tract is typical of the period, with loop streets and cul-de-sacs, and the houses are typical Postwar Minimal and tract Ranch types, with a small number of Contemporary style homes.

Although sponsored by the UAW, Sunnyhills was not restricted to Ford workers, and families with Local 560 members never constituted a majority of the tract's residents. The journal



USGS "Milpitas" quad, 1980

House and Home noted with surprise in 1957 that 90 percent of the buyers were white, confounding expectations that whites would be unwilling to purchase houses in integrated neighborhoods.²⁴ By 1962, nearly 15 percent of the families in Sunnyhills were African-American, in addition to a small number of Asian-American and other minority families.²⁵ The tract was an island of diversity among the otherwise nearly all-white suburbs of the East Bay.

Sunnyhills appears to meet National Register criterion A for its association with the efforts to secure civil rights and access to suburban housing for African-Americans in the late 1950s and 1960s. It is a rare example in California of an integrated subdivision from this period. The tract may be eligible for National Register listing if it retains sufficient integrity.

these was Eichler Homes in the Bay Area, headed by Joseph Eichler. The company sold one of its houses to an Asian-American family in 1950 or 1951. Sales to Asians increased from that time on in Eichler Homes tracts in the Palo Alto area and the South Bay, apparently without controversy.²⁶ In 1951, Eichler built a house for the family of Franklin H. Williams, director of the western region of the National Association for the Advancement of Colored People (NAACP). Concerned that selling a house in one of his tracts to an African-American might jeopardize his FHA financing, Eichler acquired a single parcel in Palo Alto, outside of any larger tract, on which to build the house for Williams. The Williams family lived in the house until the early 1960s, when Franklin moved to Washington to serve in the Kennedy administration. In Washington, Williams played a principal role in organizing the Peace Corps, and was appointed U.S. ambassador to Ghana during the Johnson administration.²⁷

Three years after the construction of the Frank Williams house, Eichler sold a house in his Greenmeadow subdivision in Palo Alto to an African-American scientist and instructor at Stanford, and the scientist's West Indian wife.²⁸ From that time on, Eichler Homes maintained a policy of non-discrimination and sold about 30 to 40 houses per year to African-Americans and other racial minorities.²⁹ Eichler Homes did try to prevent clustering of African-American families within their subdivisions, thinking that clustering might have an adverse effect on future sales. They did this by encouraging African-American buyers to pick lots that would avoid clustering, and were honest with buyers in stating their motives.³⁰

The company was quiet rather than crusading about its sales policy, never seeking publicity over the issue or deliberately

marketing to minorities. Nonetheless, Eichler Homes became well known, not only in the Bay Area but nationally, for their policy of non-discrimination. Joseph Eichler demonstrated his commitment to open-housing policies by resigning from the National Association of Home Builders in 1958 over the Association's support for racial restrictions.³¹

Properties Associated with Civil Rights

Properties associated with the postwar civil rights movement, including efforts to combat discrimination in housing, might be eligible for National Register listing under criterion A. In particular, properties that became the subject of challenges or exceptions to the dominant pattern of segregation should be evaluated under criterion A for their association with this significant chapter in American history. Potentially significant properties could include tract houses sold to minorities that became the subject of important court cases, protests, or public controversies. A housing tract built specifically for minorities might be significant as an indication of the period's prevailing attitudes about segregation, while an integrated tract that challenged these prevailing attitudes might also be significant. In addition to criterion A, a property associated with a specific prominent individual in the history of the civil rights movement, at the national, state, or local level, might meet National Register criterion B. The civil rights movement of the 1950s and 1960s is most strongly associated with the efforts of African-Americans for full participation in American society. However, properties associated with the civil rights struggles of other minority groups, including Asians, Hispanics, Jews, and homosexuals could also be significant and meet National Register criterion A.

6

The Cold War and Fallout Shelters

The period of rapid postwar suburban growth coincided with the first decades of the Cold War. The atomic age began on July 16, 1945, with the first atomic bomb test in New Mexico. Less than a month later, on August 6 and 9, the United States dropped atomic bombs on Hiroshima and Nagasaki, ending the Second World War. After the war, former allies soon became enemies and world politics came to be dominated by the antagonism between the communist and non-communist nations. In March of 1946, Winston Churchill coined an enduring term when he stated that “an iron curtain has descended across the continent,” referring to the Soviet-controlled governments of Eastern Europe.

The North Atlantic Treaty Organization (NATO) was formed in 1949 as a mutual security pact for collective defense against a Soviet attack on any of the member countries. In addition to the United States, the original NATO signatories included Belgium, Britain, Canada, Denmark, France, Iceland, Italy, the Netherlands, Norway, and Portugal. West Germany joined NATO in May of 1955, prompting the Soviet Union to form the Warsaw Pact that same month. The Warsaw Pact countries included Albania, Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Poland, Romania, and the Soviet Union.

Nuclear Arms Race

The United States had only a brief monopoly on nuclear weapons. The Soviet Union carried out its first atomic bomb test in August of 1949, just four years after the first U.S. test. In response, President Truman authorized the development

of the hydrogen bomb, which promised to be far more powerful than the bombs dropped on Japan. The U.S. conducted its first hydrogen bomb test on November 1, 1952, obliterating the island of Elugelab in the Pacific Ocean. With the nuclear arms race underway, the Soviets responded with their first hydrogen bomb test less than a year later.

Although both the U.S. and the Soviet Union had nuclear weapons prior to 1950, and Britain exploded its own atomic bomb in late 1952, these countries initially had only a limited capability to deliver their weapons to enemy targets. At the time of the Suez crisis in the fall of 1956, U.S. intelligence knew that the Soviet Union did not have missiles capable of hitting Britain or France, let alone the United States.¹ The U.S. military was similarly limited, with no long-range missiles and no planes that could reach the Soviet Union without making refueling stops in other countries. The later development of intercontinental ballistic missiles (ICBMs) changed the situation radically, as did the U.S. development of the long-range B-52 bomber. With the capability of hitting targets thousands of miles away came the realization that World War III would not be limited to battlefields on other continents, but that the United States itself was vulnerable to attack. The prospect of an enemy attack on one’s homeland was not unfamiliar to the Russians, who had been invaded by Germany in both World Wars, but was a new and sobering development for most Americans.

The realization that Americans were vulnerable to nuclear attack was brought home with particular urgency on October 4, 1957, when the Soviet Union launched its Sputnik

satellite into orbit around the earth. Following Sputnik, the Soviets launched a 1.5-ton satellite into orbit, confirming for Americans that the Soviet Union had the technology to deliver nuclear weapons to U.S. targets. The American reaction was one of fear that their country was trailing in science and technology, and therefore risked losing the Cold War. In addition to spurring greater investment in science and math at every level of education, these events marked an increase in civil defense measures, including air raid drills in schools and the construction of home fallout shelters.

The U-2 Incident, Berlin, and Cuba

A series of events in the first years of the 1960s dramatically heightened Cold War tensions. The United States and the Soviet Union had scheduled a summit meeting to open in Paris on May 14, 1960. However, on May 1, Soviet anti-aircraft defenses shot down an American U-2 spy plane over Soviet territory. After initial denials, the Eisenhower administration was forced to acknowledge the spy mission when the Soviets produced the captured pilot, CIA agent Francis Gary Powers. At the opening of the Paris summit, Soviet leader Khrushchev denounced the United States and stormed out, dashing hopes that the meeting might lead to a treaty banning the testing of nuclear weapons.

The Berlin Crisis of 1961 grew from the unresolved status of the former German capital after World War II. The country was initially divided into four sectors, under American, British, French, and Soviet control. Three of these coalesced into the Federal Republic of Germany, or West Germany, while the Soviet sector became the German Democratic Republic (GDR), or East Germany. The city of Berlin, although entirely within East Germany, was similarly divided into four sectors. West Berlin thus became a pro-Western island within the

GDR, which acted as an escape hatch for those who wanted to defect to the West. By crossing the open border from East to West Berlin and registering as refugees, residents of the GDR could be airlifted out of the city to a new life beyond the Iron Curtain. By 1960, an increasing number of East German citizens were taking advantage of this method, particularly among the country's professional and technical classes. During the summer of 1961, the flow of refugees to West Berlin reached 1,000 persons per day.²

Frustration with this state of affairs on the part of the GDR and the Soviet Union led to increasingly bellicose rhetoric from Khrushchev and an implied threat to absorb West Berlin into the GDR. Because U.S., British, and French forces remained in Berlin, such an action would have had serious repercussions. Unwilling to sacrifice West Berlin, President Kennedy made a speech on July 25, 1961 in which he called for the defense of West Berlin, an increase in military preparations, and expansion of the domestic civil defense program. Kennedy's willingness to go to war over Berlin was popular with the American public, although it was clear to all that such a conflict could lead to the use of nuclear weapons by both sides. Following a series of increasingly tense confrontations between U.S. and Soviet forces in Berlin, the GDR began construction of a wall around West Berlin in August of 1961. Construction of the Berlin Wall created a new status quo that was unsatisfying to the West, but put an end to confrontations that had the potential to escalate to war.

In Cuba, deteriorating relations with the United States came to a head in April of 1961, when the revolutionary government repelled a U.S.-backed invasion force at the Bay of Pigs. Seeking aid in its defense, Cuba received Soviet intermediate-range missiles in September of the

following year, capable of delivering nuclear warheads to most of the continental United States. American spy flights over Cuba confirmed the presence of these missiles, and the preparation of launch facilities, on October 14. Eight days later, President Kennedy announced this discovery in a public address. Kennedy demanded the removal of the missiles, ordered a naval blockade of the island, and announced that any missile launched from Cuba would bring a full U.S. retaliation against both Cuba and the Soviet Union. After a tense standoff of several days, the Soviets agreed to remove the missiles from Cuba, in exchange for a public promise by the United States not to invade Cuba and a private promise to remove U.S. Jupiter missiles from Turkey that were targeted on the Soviet Union.³

Although President Truman threatened to use nuclear weapons in Korea in the early 1950s, and their use was a realistic possibility during the Berlin crisis, it was the Cuban Missile Crisis that brought the two major Cold War antagonists the closest to nuclear war. It was also the last time that the Cold War came so close to becoming an actual war.

Civil Defense and Fallout Shelters

The construction of home shelters for protection in the event of nuclear war probably began with the first Soviet atomic bomb test in 1949. In response to the Soviet acquisition of atomic weapons technology, President Truman established the Federal Civil Defense Administration (FCDA) in 1950.⁴ The FCDA was charged with educating the public about the dangers of nuclear war and promoting measures that could help more Americans survive an atomic attack. One of the agency's earliest projects was the creation of the "duck and cover" films that millions of American children watched in school.⁵

A pamphlet distributed by the FCDA in 1953 included instructions for the construction of several types of basement shelters and buried outdoor shelters.⁶ These ranged from simple lean-tos set against a basement wall to more elaborate masonry and reinforced concrete structures. These shelter designs were intended to protect their inhabitants from the blast and heat effects of an atomic bomb as well as radiation. The FCDA pamphlet discussed the danger of radioactivity only in terms of the radiation from the initial explosion, with no discussion of the later effects of radioactive fallout. The pamphlet included very little discussion of supplies for the family bomb shelter, beyond tools and a first-aid kit, as it was assumed that the shelter would be used only during the period of attack.

This approach to protection from atomic weapons began to change in 1954, following the hydrogen bomb test at Bikini Atoll. The amount of radioactive fallout from this blast (primarily pulverized coral) was much higher than expected, and was carried by the prevailing winds over several thousand square miles. Protection from nuclear attack therefore had to include not only protection from blast, heat, and the initial burst of radiation, but also from clouds of radioactive dust that might be carried many miles from the blast site and remain lethal for days or weeks. Since radiation from fallout could potentially kill more people than the immediate effects of a nuclear explosion, the emphasis in civil defense shifted from the construction of bomb shelters for short-term use to the construction of fallout shelters that might need to be inhabited for up to two weeks, until the clouds of radioactive dust had blown away or settled.

The construction of fallout shelters intended for longer periods of use brought a host of additional requirements. At a minimum, each

A family of six in their home shelter. (Joseph Benetti Collection [2003/012/0866]. Courtesy of the Center for Sacramento History.)



shelter had to be equipped with a toilet, battery-operated lighting, a filtered intake for fresh air (often operated by a hand crank) and an outlet for exhaust air. Owners would need to furnish and stock their shelter with cots, a battery-operated radio, first-aid supplies, food and water for up to two weeks, and additional water for washing.

Construction of home fallout shelters increased substantially following the Soviet launch of the Sputnik satellite in 1957. In 1959, *Life* magazine published an article about a Miami couple who spent two weeks in their 8' by 12' backyard fallout shelter as a honeymoon.⁷ (The contractor who built the shelter paid for the couple to take a real honeymoon to Mexico in exchange for the publicity.) By this time, fallout shelters had acquired a certain familiarity among the general public, even if few people had ever seen one. This is indicated by the fact that the *Life* story did not treat the shelter itself as a novelty, but focused on the practical lessons learned during the Miami experiment, such as the tools

needed for unanticipated repairs, the types and variety of food to stock, and methods of dealing with claustrophobia.

The budget-conscious administration of President Eisenhower did not initiate any national program of shelter construction, although some government officials advocated such a program. Proponents maintained that the widespread construction of shelters would itself be a deterrent to a Soviet first-strike, by increasing the probability that large numbers of Americans could survive to rebuild their country and resist any attempted Soviet occupation. *Time* magazine proposed in October 1961 that a nationwide system of civil defense shelters could reduce the number of American casualties in a nuclear war from 160 million to 85 million.⁸ A slightly earlier article in *Life* suggested, with implausible optimism, that fallout shelters might save 97 percent of the American people in the event of a nuclear attack.⁹ Proposing that individuals take responsibility for the survival of their families, *Life* advised that a man with a backyard shelter



Behind the split-rail fence and brick border in the front yard of this house in west Los Angeles is the entry hatch to the family's fallout shelter, constructed in 1960.

is "a solid, sensible man – and a responsible citizen."¹⁰

Home fallout shelters were constructed in yards and basements, beneath additions to houses, and beneath garages or sheds. In California, where basements are not common, shelters were most often built as subterranean chambers accessed from the yard. In some neighborhoods, where houses are close together and accessing rear yards with large equipment or prefabricated components proved too difficult, shelters were constructed in front yards.¹¹ Generally, home fallout shelters were of two types: concrete shelters site-built within an excavation, or prefabricated or partially prefabricated metal units lowered into an excavation and covered with at least three feet of earth. Prefabricated metal units included metal drum shapes with shallow dome roofs, igloo shapes, and large-diameter cylinders.¹²

In the Los Angeles suburb of Downey, a local savings and loan association sponsored the construction of a model shelter in October of 1959. The sponsor claimed that this was the first such shelter constructed in the western United States, although it was undoubtedly preceded by less publicized shelters. With

interior dimensions of 10'-8" by 8' and a 6'-6" ceiling height, it was claimed that this small concrete box could accommodate a family of six and their required supplies for two weeks.¹³

The construction of fallout shelters took off in the early 1960s, in response to the collapse of the Paris summit and the situation in Berlin. It is estimated that only a few thousand home fallout shelters had been constructed prior to Kennedy's Berlin speech in July of 1961.¹⁴ However, by autumn of that year, one Chicago company reported selling 200 shelters per week.¹⁵ A similar boom occurred in California. The City of Los Angeles issued 120 building permits for shelters in the first three weeks of September, compared to only 70 in the preceding ten years.¹⁶ In San Diego, city building officials issued 43 shelter permits in September, compared to 17 in August.¹⁷ Construction surged in smaller cities as well, with many seeing their first shelters. The Los Angeles suburb of Arcadia (population 41,005 in 1960) issued seven shelter permits in October 1961, while Garden Grove in Orange County (population 84,238 in 1960) issued twelve.¹⁸ A survey of local governments in the Los Angeles area revealed that 760 home fallout shelters had

been built or were under construction by the end of October.¹⁹ This figure does not include shelters built without the required permits, which may have been a substantial portion of the total.²⁰

The period of home shelter construction lasted only a short time, spiking in 1961 but declining precipitously by the end of the year, after the tensions of the Berlin Crisis had dissipated. In December of 1961, the *Los Angeles Times* reported that building permit applications for home fallout shelters in the city had fallen to two or three per week.²¹ Advertisements for shelter construction in the *Los Angeles Times* decreased dramatically after 1961, and it does not appear that the Cuban Missile Crisis in the fall of 1962 led to a significant revival of shelter construction.

The Kennedy Administration's civil defense program focused on designating and stocking public shelters rather than promoting the construction of individual family shelters. Congress appropriated slightly more than \$200 million in 1962 for the civil defense program, to be carried out by the newly established Office of Civil Defense within the Pentagon. A bit more than half of this money was designated for a shelter survey, improvement of existing public shelters, and the establishment of new shelters. These were typically in the basements of public buildings, and were indicated by black and yellow signs with the symbol for nuclear radiation. Another \$58 million went toward the purchase of supplies for shelters, including food, water, and first-aid equipment. The rest of the \$200 million appropriation was devoted to research and the installation of warning systems.²²

There is no data on the number of home fallout shelters constructed, or even any reliable estimates, but it is probable that several thousand shelters were built in California.

A Shelter in Every Garage

At least one Southern California builder offered an optional fallout shelter as a feature of his tract houses in 1961 and 1962. Richard Doremus, president of Exhibit Homes, built two adjacent tracts in Thousand Oaks, Ventura County: 300 houses at The Dales (between Moorpark Road and Highway 23, south of Janss Road) and 550 houses at Sunset Conejo (north of Janss Road). Both tracts featured Ranch houses with prices starting at \$29,500. For an additional \$1,100, buyers could get a fallout shelter under the garage. The eight-foot by ten-foot shelters had walls of concrete block and a two-foot thick reinforced concrete ceiling (the garage floor). The company placed an advertisement in the *Los Angeles Times* in the spring of 1961, as the Berlin crisis was brewing, showing a mushroom cloud above the word "survive" in large display type. The ad encouraged prospective buyers to "enjoy peace of mind" in "Southern California's only residential developments with fallout protection." These two tracts may have the highest concentration of home fallout shelters in the state, as one article noted that 20 of the first 26 buyers opted to include the shelter in their new house.²³

Many more people considered and discussed the idea of a fallout shelter than actually built one. As Thomas Hine noted, the brief interest in shelters "prompted far more introspection than excavation."²⁴ The reasons for inaction included the Kennedy administration's emphasis on public rather than family shelters, skepticism about the efficacy of a backyard or basement shelter, and cost. Construction of even a minimal shelter in 1961 would have been prohibitively expensive for many households.

Fallout shelters may have been dubious security from the beginning, but the growth of the U.S. and Soviet nuclear arsenals, and the increase in the destructive power of these



This fallout shelter in Tuolumne County has three features visible above ground: the concrete entrance hatch with a steel door, an exhaust air pipe near the entrance hatch, and a filtered air intake about ten feet away from the entrance hatch. The shelter was determined ineligible for National Register listing, primarily because the associated residence on the property has been demolished.

weapons, soon made the limitations of fallout shelters obvious. The strategy of stockpiling nuclear weapons for “mutual assured destruction” in the event of war, which acted as a deterrent to either side attempting a nuclear first-strike, made planning for survival seem unrealistic. At the same time, the urgency of the nuclear threat diminished in the years following the Cuban Missile Crisis. In addition, a 1963 treaty banning atmospheric testing greatly reduced the public visibility and knowledge about both the U.S. and Soviet nuclear weapons programs. As the focus of American foreign policy turned increasingly to Vietnam in the 1960s, less public attention was paid to relations with the Soviet Union or China (which carried out its first successful atomic bomb test in 1964). Decades later, but well before the fall of communism in Russia and Eastern Europe, the construction of home fallout shelters came to be seen as something of an embarrassment and a subject of satirical commentary.

Shelters as Historic Properties

Fallout shelters were never common in California, and it is not known how many of

those built in the 1950s and 1960s are extant. Encountering a shelter in the course of a historic resource survey will probably be a rare event. Home fallout shelters might not be identified through normal survey methods, since most were constructed under buildings or in rear yards. An earthen mound, a small door or hatch cover, or air vents protruding from the ground may be the only indicators of a shelter. Evidence may appear in building permit records or assessor’s records, but it is likely that many shelters were built somewhat surreptitiously, without permits.

One home fallout shelter in California has been evaluated for National Register eligibility. Located east of Sonora in Tuolumne County, the shelter was completed in January 1962 (as inscribed on the concrete entrance hatch). The main chamber is 8’-6” by 10’-6”, with a ceiling height of 6’-6”. The floor, walls, and roof are concrete, with the roof about three feet below grade. The shelter was determined ineligible for National Register listing in June 2011, primarily because the residence on the property has been demolished, leaving only the shelter.²⁵ The shelter thus lacks an important aspect of its historic setting and the contextual association

as a family refuge. An intact home fallout shelter in which the residence is also extant would likely meet National Register criterion A for its association with the Cold War, as a stark reminder of the period's anxieties.

Public shelters, located in the basements or interior areas of larger buildings such as schools, would probably not meet National Register criterion A. Generally, public fallout shelters were not designed for that purpose, but

were simply designated as places of refuge in the event of a nuclear attack, and no physical changes were made to the buildings for this anticipated use. A structure built specifically for use as a public fallout shelter might meet National Register criterion A. Similarly, a housing tract might meet criterion A if home fallout shelters were built as part of the original plan or if a public shelter was constructed as part of the tract.

7

Tract Design and Planning

This chapter describes the characteristic features of postwar housing tracts, including patterns of development and location within metropolitan areas as well as common planning and design principles. Also discussed are the various types of housing developments, from small subdivisions to entire new communities, and the appearance of specialized types such as retirement communities.

Patterns of Growth and Tract Location

The true building block of the expanding postwar metropolis in California is not the urban block, but the subdivision or tract. Some regions of the United States, particularly the Southeast, experienced a pattern of postwar growth characterized by the construction of individual houses along rural roads and highways. This linear form of growth occurred where farmers sold off their roadway frontage as individual house lots. Such houses often have groundwater wells and septic systems rather than municipal utilities. In California, however, individual wells and septic tanks are much less common for postwar housing. New housing developments usually required access to either public utilities or private water companies. The cost of extending water and sewer service to only one or two houses at a time made this type of gradual linear expansion impractical. Builders needed to construct whole subdivisions to defray the cost of providing utilities. As a result, even small cities and towns have tended to grow by adding new subdivisions rather than by the gradual addition of individual houses.

One result of the relatively high cost of providing water is that metropolitan areas in

California do not exhibit significant declines in residential density with increasing distance from the city center. Instead, houses continue to be built on small lots in relatively dense subdivisions regardless of the distance from downtown.¹ This is in marked contrast to many Eastern cities, where the most distant (and recent) suburbs are often built at quite low densities, with some having residential lots of an acre or more. Large-lot subdivisions of this kind are much less common in California.

Because lot sizes in California do not grow significantly in relation to distance from the city center or the value of the house, residential status correlates with elevation rather than lot size. Wealthier Californians tend to live on higher ground, although their mansions are often on surprisingly small lots by Eastern standards.

California cities, like those throughout much of the Southwest and West, are often much larger in area than Eastern cities. Some California cities annexed aggressively in the postwar period and grew dramatically in area as well as population. The city of San Jose is one of the nation's most remarkable examples of growth through annexation, expanding from only 17 square miles in 1950 to more than 157 square miles by 1980.² In contrast, many Eastern cities were surrounded by incorporated suburbs and blocked from expansion well before World War II. Other California cities annexed large areas earlier in the 20th century and retained undeveloped land into the postwar period. Los Angeles, for example, annexed much of the San Fernando Valley in 1915 and presently includes 469 square miles of land area. San Diego is slightly larger than

the five boroughs of New York (324 and 305 square miles, respectively) although the latter city has more than six times the population. Even the cities of Riverside and San Bernardino (98 and 81 square miles, respectively) are larger than major Northeastern cities such as Boston, Cleveland, and Pittsburgh. In much of the Eastern United States, postwar housing tracts are primarily a suburban phenomenon. With the exception of San Francisco, many such tracts in California can be found within the limits of the state's larger cities.

Postwar housing tracts, designed for auto use and not dependent on the expansion of existing public transit networks, were often located well beyond the built-up areas of cities. In contrast to streetcar suburbs, growing incrementally around the perimeters of their cities, these new tracts were often set (at least initially) amid agricultural land. However, the locations of these new housing developments were not as haphazard or arbitrary as some observers believed. Rather than random sprawl on any available parcel, proximity to employment centers strongly influenced developers' choices in locating new housing. Greg Hise, in *Magnetic Los Angeles*, described the decisions of developers in selecting locations for new housing. Hise noted that:

*Private home builders sited their new neighborhoods in close proximity to employment, aggressively marketed their projects' location as a primary inducement for sales, and targeted wage earners employed in defense industries as their principal buyers.*³

Hise used the analogy of magnetism to describe the way in which merchant builders were attracted to the decentralized industries of the Los Angeles metropolitan area, particularly aircraft manufacturing. For example, the

developer Fritz Burns constructed his Westside Village tract in proximity to Douglas Aircraft, Toluca Wood near Lockheed, Westchester near North American Aviation, and Panorama City adjacent to a new General Motors assembly plant.⁴ These and other wartime and postwar developments were not built to serve a central downtown business district. They were located far from downtown Los Angeles, which was declining in importance as an employment center in this period.

Although Hise used the archetypal multi-centered metropolis as his case study, the pattern he observed is not unique to the Los Angeles area. In the San Francisco Bay Area, the East Bay communities of San Leandro, Hayward, Fremont, Union City, and Milpitas all saw rapid growth in the postwar period. The new housing tracts in these suburbs primarily served the industrial and warehousing corridor extending from Oakland to San Jose, rather than the central business districts of the region's major cities.

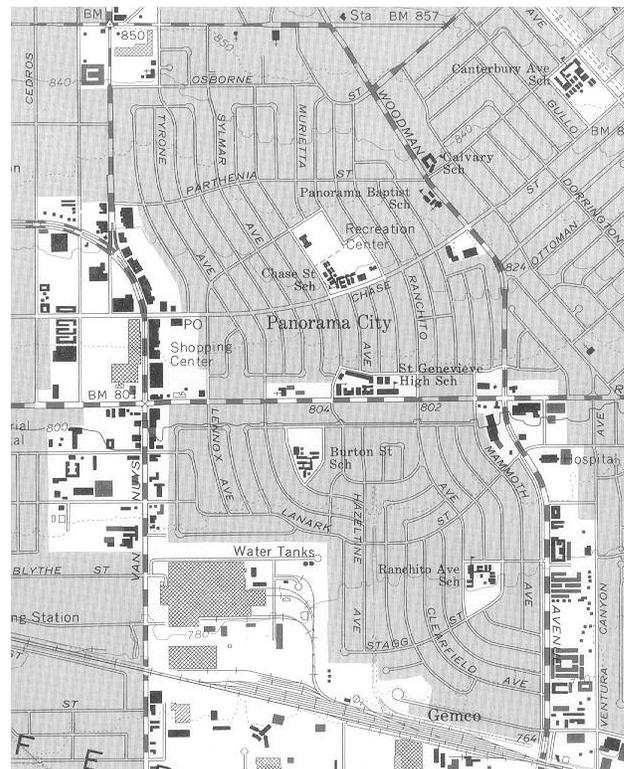
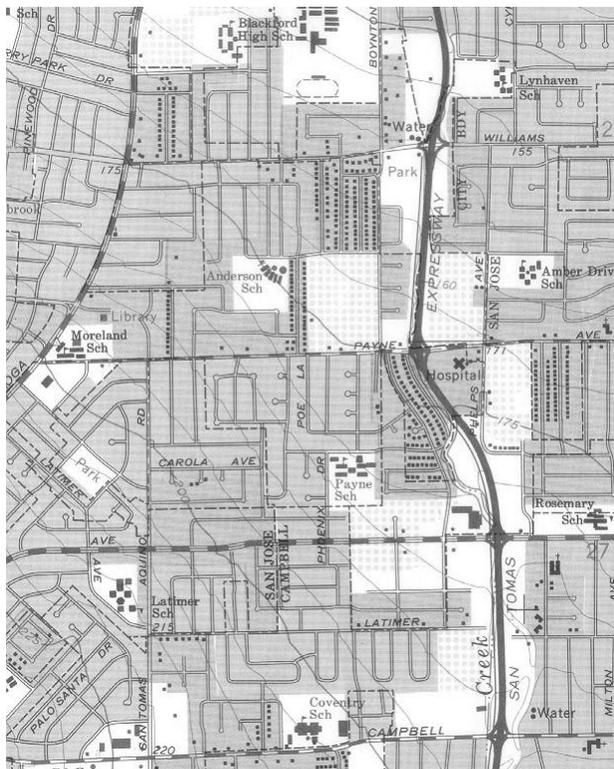
Tract Size

Postwar housing tracts in California range in size from infill subdivisions of fewer than 20 houses to new communities with thousands of housing units. At the smallest end of the spectrum, a postwar tract might consist of just a few streets or even a single loop street. Such a tract could include a playground or small park, but will generally have only house lots rather than a mix of property types. The smallest tracts may not exhibit the typical curvilinear street pattern of the period, due to the constraints imposed by the size and shape of the parcel. These small tracts can be found as infill or redevelopment within older urban neighborhoods and streetcar suburbs as well as in areas that were largely undeveloped until the postwar period.

Postwar population growth, and therefore the size of the market for new housing, varied among the state's major metropolitan areas and smaller cities. This had an effect on the relative sizes of housing tracts found in different urban and suburban regions. In California's smaller cities, such as Bakersfield, Modesto, and Stockton, postwar tracts typically have fewer than 200 houses. The largest tracts may include 250 to 400 houses, but few are larger than this. In the larger metropolitan areas (from Fresno at the low end of the spectrum to Los Angeles at the high end), tracts of 250 to 400 houses are much more common and would not be considered unusually large. Tracts of 500 to 1,000 houses are also seen in these areas, as well as new communities planned and constructed

by a single builder that might contain several thousand houses in addition to apartment buildings, schools, and shopping centers.

Prior land uses also strongly influenced the sizes of housing tracts developed in the postwar period. In areas where small farms were common, the new subdivisions are also typically small, reflecting the difficulty for developers of assembling two or more contiguous farms into larger tracts. In the Santa Clara Valley, for example, including San Jose and surrounding communities, orchard farming predominated before World War II and landholdings were relatively small, with many orchards of 40 acres or less. Consequently, a large number of relatively small subdivisions were constructed in the valley during the



The effect of prior land uses on the size of postwar tracts: At left is a portion of the Santa Clara Valley near San Jose, showing a patchwork of small, unrelated subdivisions and a few remnant orchards. Shown at the same scale at right is the Panorama City development of 1947-52, a former ranch property in the San Fernando Valley of Los Angeles. The street layout at Panorama City exhibits a clear overall plan that distinguishes the tract from surrounding development. [USGS "San Jose West" 1968 and "Van Nuys" 1972 quads]

postwar years, gradually filling the areas within the earlier grid of rural roads. Those portions of Orange County where orchard farming was common before the war also now have a large number of relatively small housing tracts.

Alternatively, where builders were able to acquire large farms or ranches, the scale of postwar development is correspondingly large. In these instances, builders took advantage of opportunities to construct not just housing tracts, but entire new communities. At the largest end of the spectrum, a few vast landholdings that had remained intact since California's rancho period were transformed into master-planned developments with multiple tracts as well as business and commercial centers. Examples include Irvine in southern Orange County, Rancho Bernardo in San Diego County, and El Dorado Hills near Sacramento.

Tract Design

The typical postwar subdivision is immediately distinguishable by its street layout from older city neighborhoods and from many of the streetcar suburbs of the early 20th century. In contrast to the rectilinear urban grid, the street pattern of the postwar subdivision typically includes sweeping curves, loop streets, and cul-de-sacs. The gently curving streets that are so characteristic of suburbia date back to the picturesque suburbs of the mid-19th century, such as Llewellyn Park, New Jersey and Riverside, Illinois. In the automobile age, however, these street layouts were designed with safety as well as aesthetics in mind. Curving streets limited sight distance and therefore caused motorists to drive more slowly than on long, straight streets. Cul-de-sacs and loop streets were used to discourage through traffic. Loop streets, generally in the form of a long "U" that connects to another street at both

ends, have the virtue of the cul-de-sac in eliminating all but local traffic, with the added advantage of being easier for fire trucks and other large vehicles to negotiate. Since traffic studies showed that four-way intersections generated the most traffic conflicts and accidents, postwar subdivision planners tried to reduce the number of such intersections and instead relied primarily on three-way, "T" intersections.⁵

Long blocks are also common in the postwar subdivision, reducing the number of intersections and therefore the number of potential traffic conflicts and accidents. While in urban neighborhoods a typical block might be only the length of eight to twelve narrow house lots, in postwar tracts it is not uncommon to have more than twenty houses between intersecting streets. Even in developments that retained a linear street layout, such as Lakewood in Los Angeles County, the blocks are typically much longer than in older neighborhoods. The smaller blocks of older neighborhoods provided more street capacity than was necessary for the lower residential density of postwar suburban tracts.⁶ By constructing longer blocks with fewer cross-streets, developers were able to reduce their infrastructure costs by limiting the amount of paving and curbing required, and retain a larger portion of the tract for house lots.

Developers of larger tracts typically planned a hierarchy of streets. The widest and most heavily traveled streets are the arterials, sometimes running through a tract but more often defining its perimeter. In some tracts, frontage roads parallel the arterials so that no residential driveway leads directly onto an arterial road. In other tracts, the arterial street may run along the rear property lines of residences. In these instances, tall and solid privacy fences often screen the houses and rear

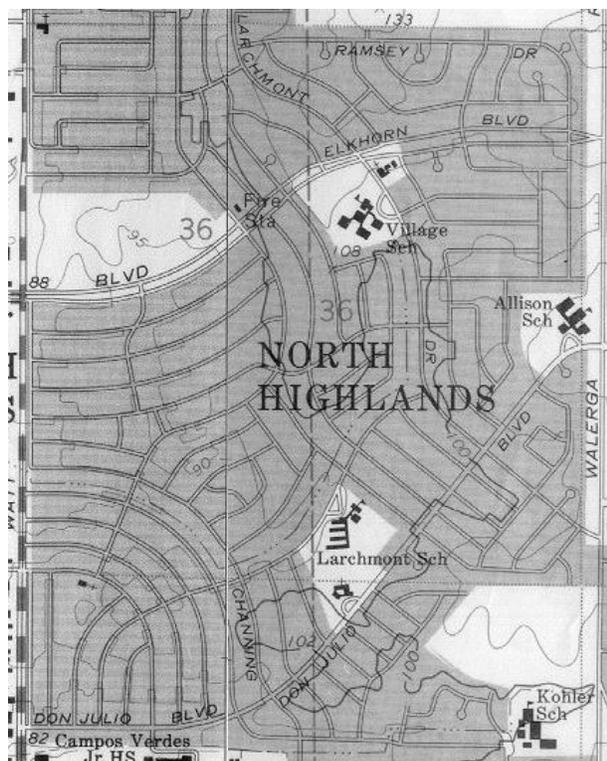
yards from the roadway. Access into the tract from the arterial is limited to a small number of collector streets, rather than having cross streets interrupt the arterial at every block. Branching out from these collector streets are the minor residential streets, often loops and cul-de-sacs. The overall pattern discourages through traffic and may even confuse and disorient motorists who venture off the arterials into unfamiliar neighborhoods.

Postwar tract builders nearly always omitted alleys from their plans, seeing them as wasteful of land and functionally obsolete. With the elimination of the alley, the back yard became a strictly private place for family recreation. Deliveries and trash removal were

now carried out from the street, and garages were typically attached to the house rather than a detached building at the rear of the lot.

The streetscape of a suburban tract includes not only the street itself, but also the curb, planting strip, street trees, sidewalks, and front yards. Many developers preferred rolled curbs (also called mountable curbs) because they were cheaper to install and eliminated the need for curb cuts at each driveway. Rolled curbing is most frequently seen in tracts constructed from the end of World War II through the 1950s, and is less common in later tracts.

The sidewalk would sometimes be placed next to the curb, particularly when rolled curbs were used, rather than having a planting strip



Comparison of postwar and prewar street layouts: At left is a portion of the North Highlands tract near Sacramento, built in the early 1950s. It exhibits the characteristic street layout of the period, including curved streets, long blocks, and a limited number of through streets. More than two-thirds of the intersections shown are three-way intersections. At the same scale at right is a portion of central Sacramento, platted in the 19th century. This older area has shorter blocks and about 100 more intersections, nearly all of which are four-way intersections. Blocks are narrower in North Highlands because there are no alleys. [USGS “Rio Linda,” “Citrus Heights,” and “Sacramento East” quads, 1967]

Merchant builder David Bohannon constructed San Lorenzo Village in Alameda County from 1944 to ca. 1952. This streetscape view shows such typical features as curved streets, rolled curbs, and sidewalks placed adjacent to the curb with no planting strip.



between the curb and sidewalk. (In colder regions of the country, the planting strip is necessary for the storage of plowed snow from the streets.) Developers sometimes planted street trees, either in the planting strips or the front yards.

While the rear yard was private space for the family, the front yard, although privately owned, was visually part of the public realm. As Robert Fishman notes in *Bourgeois Utopias*:

The front lawn is not family space, and family members rarely venture out into it except to maintain it. It belongs, rather, to the community. The lawns, in conjunction with the roadside trees, create the illusion of a park. Their greenery transforms an urban street into a country lane. The lawn is the owner's principal contribution to the suburban landscape – the piece of the 'park' he keeps up himself. Not surprisingly, lawn maintenance is a civic duty at least as important as any other form of morality.⁷

Many tract developers and homeowners' associations sought to maintain this park-like appearance by prohibiting fences in front yards.

The Federal Housing Administration recommended curvilinear and hierarchical street plans, long blocks, minimizing the

number of four-way intersections, and the elimination of alleys in new housing tracts, explicitly rejecting extension of the older urban gridiron street plans. These recommendations were disseminated to developers via publications such as *Planning Profitable Neighborhoods* (1938) and *Successful Subdivisions* (1940). Since builders typically needed FHA approval of their plans to attract financing, the design principles advocated by FHA became design standards for postwar housing tracts.

The standards for subdivision design were further codified in the *Community Builders' Handbook*. First published in 1947 by the Community Builders Council of the Urban Land Institute, the *Handbook* is a compendium of best practices (or conventional wisdom) for real estate developers. The Community Builders Council included many of the largest merchant builders of the postwar period, including men such as Fritz Burns of Los Angeles and David Bohannon of the Bay Area. The first editions of the *Handbook* were edited by Seward Mott, who headed the Land Planning Division of FHA prior to the war, and served in the postwar period as Executive Director of the Urban Land Institute.

The 1948 edition of the *Handbook* includes 213 pages, almost half of which are devoted to

the development of shopping centers. Revised and expanded in subsequent editions, the *Handbook* had grown to 526 pages by 1968. The 1968 edition included chapters on many types of property development that hardly existed in the late 1940s, such as motels, retirement communities, and office parks. Topics covered in the *Handbook* ranged from the most general, such as market analysis and site selection, to the most specific, such as the design of cul-de-sacs. (The *Handbook* recommended a maximum length of 500 feet for cul-de-sacs, with a minimum 80-foot diameter bulb at the end for turning.) Other recommendations for housing tracts included long blocks, loop streets, and rolled rather than square curbing.

Cluster Planning

A new method of subdivision or tract design, cluster planning, appeared toward the end of the 1950s and became increasingly popular in planning circles during the 1960s.⁸ Various referred to as “cluster zoning,” “planned unit development,” or “open space communities,” cluster planning involved setting aside some portion of a tract as parkland or undeveloped green space, with the housing more densely grouped on the remaining land. In approving a cluster development, local government would permit a builder to construct the maximum number of units allowed under the zoning based on the size of the entire tract. In exchange for the public benefit of leaving a portion of the tract undeveloped, the developed areas would have a higher density and smaller lot sizes than would otherwise be allowed. The unbuilt areas within a cluster development could provide public amenities such as parkland, pedestrian and bicycle paths, and other forms of recreational land (including man-made lakes or canals in some developments), or might simply be retained as wildlife habitat or greenbelts

separating the housing from highways or incompatible adjacent land uses.

Local governments and environmentalists supported cluster planning because it typically resulted in less earth moving, fewer tree removals, and avoidance of marshy, steep, or otherwise environmentally sensitive areas. Cluster planning also provided land for public recreation and was seen as an aesthetic advantage over traditional subdivisions in which all of the land was either paved streets or privately owned residential lots. Developers benefited by avoiding areas that were difficult or costly to develop, without reducing the total number of housing units permitted. In addition, cluster planning frequently simplified and reduced the cost of installing water and sewer lines and reduced the amount of street and sidewalk paving required. Common areas within cluster developments were either deeded to local government or owned and maintained by homeowners associations.

Community Building

While many merchant builders focused on constructing subdivisions of houses only, some of the larger builders planned for the inclusion of schools, shopping centers, and civic buildings such as libraries and fire stations in their larger developments. Merchant builders who engaged in development at this scale were also called “community builders,” in recognition of their role in creating not just housing tracts but new communities. Rather than building the necessary schools themselves, community builders generally sold land within their tracts to the local school districts. Buildings such as libraries, community centers, and fire stations were sometimes constructed by the developer, but these were typically deeded to the local government or put under the control of a homeowners’ association. Land

Cluster Planning in Sacramento: Greenhaven

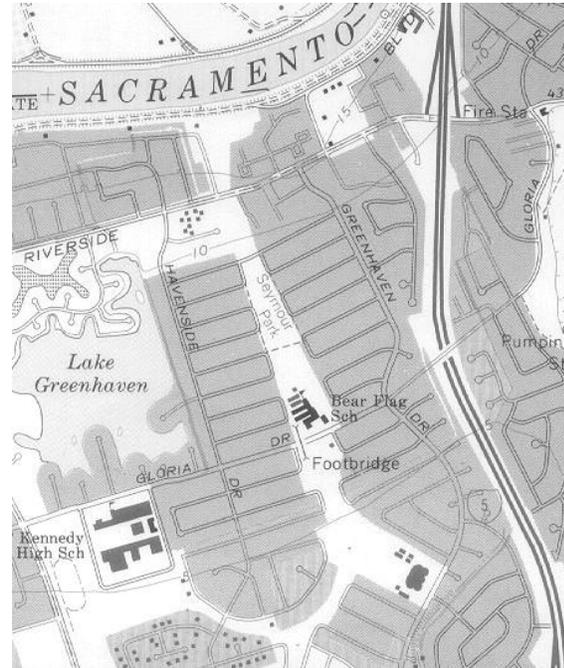
Sacramento's Greenhaven development won a National Association of Home Builders award for community planning in 1963, as a model of cluster planning.⁹ The initial *Greenhaven 70* plan was drawn up by David Whittet for the development partnership of Kermit L. Lincoln and Harold E. Parker, and construction began in 1961. About 1,300 houses were built in the initial phase. Rather than building the houses themselves, the developers sold lots (primarily to builders rather than homeowners) in an attempt to foster greater architectural variety.¹⁰

The street layout consists primarily of a series of loop streets separated by a linear park or greenway. The greenway is owned and maintained by the City of Sacramento as public parkland. The end of each loop street provides access to the greenway, and the few streets that

cross the greenway have overcrossings and undercrossings for pedestrians. The greenway was eventually extended in a north-south direction for approximately 1¾ miles, with shorter east-west extensions, and provided access to three schools. Most of the children in Greenhaven can therefore walk to school along the greenway without encountering vehicle traffic.



Pedestrian undercrossing along the greenway



Greenhaven tract, showing the linear greenway (unshaded area) between loop streets. [USGS "Sacramento West" quad, 1980]

for churches was sold or donated to religious institutions. While the community builder may not have been directly involved in the construction of schools, churches, and other public buildings, the builder did designate the locations for such buildings early in the planning process.

A common planning principle for new communities was the neighborhood unit. The urban planner Clarence Perry coined the term in the 1920s, although the principle can be

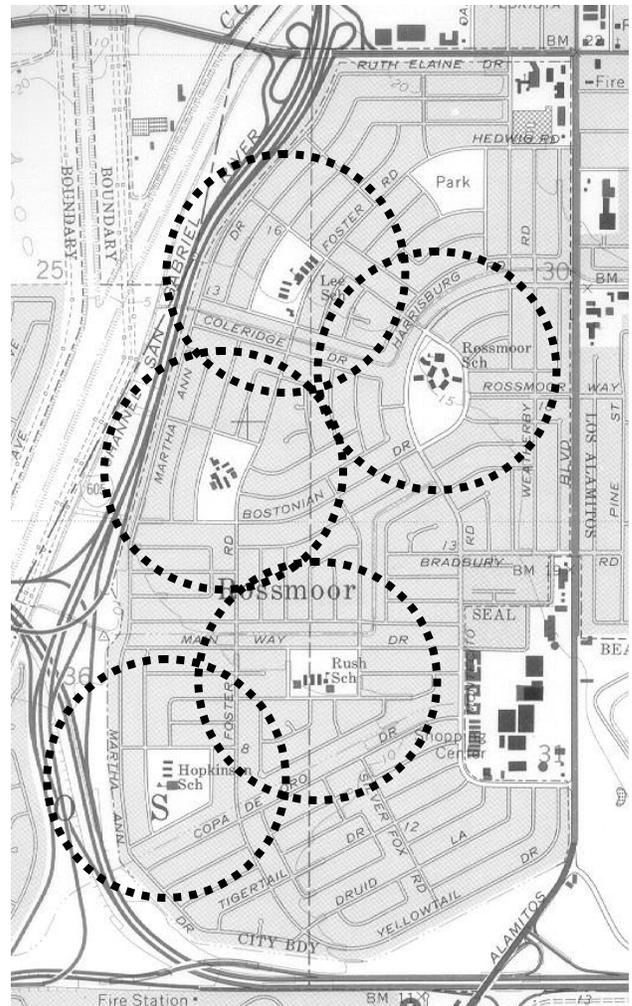
traced back to the 19th century Garden City proposals of the British social reformer Ebenezer Howard.¹¹ The neighborhood unit is a self-contained grouping of enough households to support a single elementary school, and of sufficient density that these households can all be within walking distance (about ¼-mile) of the centrally located school. The neighborhood unit might be bounded by major arterials, but internally would include only residential streets, so that children could

walk to school without having to cross busy streets. Neighborhood unit planning was promoted by FHA even before World War II, and it became the basis of postwar planning among community builders.

Many of the new communities of the postwar period included more school buildings than are needed today, due to smaller average family size and a substantial increase in the number of childless households. As a result, some school buildings have been demolished and others converted to different uses.

Unlike schools and churches, shopping centers were frequently planned and built by the community builder. In addition, the builder often retained ownership of the commercial properties long after the houses had been sold. Commercial rents provided a source of regular and predictable income for merchant builders, which could be used to cover the firm's continuing overhead expenses. While some of the larger new communities included major retail centers, most included one or more neighborhood or community shopping centers. The population served by even a small shopping center would be considerably larger than that served by an elementary school, and shopping centers are therefore typically much less numerous than schools in new postwar communities. Neighborhood and community shopping centers are generally located at the intersections of arterial streets that either form the perimeter of a housing tract or serve as boundaries between two neighborhoods within a larger tract.

The earlier postwar examples of new communities generally have a larger number of neighborhood shopping centers. Changes in retailing over the postwar period (and continuing to the present) have led to the obsolescence of many of these small shopping centers, and later communities generally have



School locations in postwar communities: Rossmoor in Orange County, built by Ross Cortese from 1956 to ca. 1961, originally included five elementary schools (shown here within circles of ¼-mile radius). As is typical of new postwar communities, the schools are about ½-mile apart and located away from major streets and commercial areas. [USGS “Los Alamitos” quad, 1981]

fewer but larger retailing centers. All types of stores tended to become larger over the second half of the 20th century, with community grocery stores and small variety or “dime” stores becoming virtually extinct. The larger stores served a much greater population and required more land for parking, as their customers were increasingly likely to drive rather than walk for even the most minor shopping trips.

Apartment buildings in the Westlake development in Daly City, San Mateo County. Built ca. 1950 by Henry Doelger. These buildings surround the main shopping center and separate the shopping center from the neighborhoods of single-family housing.



Many community builders included apartment buildings as well as single-family houses in their developments. Typically consisting of groups of two-story buildings, apartments were often placed adjacent to a community's larger shopping centers, to separate commercial zones from single-family housing. Apartment buildings were also placed along major arterials to insulate neighborhoods of single-family houses from noise and traffic.

One significant limitation of postwar community planning was the lack of greenbelts. In Ebenezer Howard's Garden City proposals, a greenbelt of parkland or agricultural land surrounding the new city was a critical feature. In postwar California, neither community builders nor local governments made provisions for open space around new developments. (Among the few exceptions are some of the later cluster-planned communities.) While the earliest of the postwar communities were often surrounded by farmland, over time these farms were sold to developers and converted to housing tracts. As a result, communities that may have originally had clear boundaries and distinct identities became

indistinguishable components of vast suburban agglomerations of relatively uniform density.

Multi-family Housing

Demographic and social changes in the 1960s led to major changes in the housing market. The children of the postwar baby boom began to reach adulthood in the mid-1960s, and the number of young adults increased rapidly for more than a decade thereafter, as those born in the later 1940s through the 1950s reached maturity. These young adults generally married and had children later than their counterparts in the 1950s, and were less likely to wait until marriage to leave their parents' households.¹² The result was a surge in single-person households and young childless couples. Rising divorce rates at this time also contributed to the increase in single-person households. This substantial increase in the number of childless adults translated into an increased demand for apartments as an alternative to houses.

In addition to rental apartments, the 1960s saw a substantial increase in condominium developments. The National Housing Act of 1961 authorized FHA to insure mortgages on

condominiums, making this type of property much more attractive to both builders and consumers. Condominiums first achieved popularity among retirees in south Florida, and spread from there to major metropolitan areas across the United States while broadening to include a larger segment of the housing market.

The single-family detached house was the predominant housing type throughout the United States from the end of World War II through the 1950s, comprising more than 80 percent of all new housing construction.¹³ The proportion of multi-family housing (apartments and condominiums) grew steadily in the 1960s, however, surpassing 40 percent of all new housing units constructed each year from 1968 through 1973.¹⁴ Nationwide, about 250,000 units of multi-family housing were begun in 1960. The figure rose to more than 500,000 units by 1963 and topped one million units for the first (and only) time in 1972.¹⁵ In California, the proportion of multi-family housing began to increase in the late 1950s and grew to become a majority of the new housing units built from 1962-64 and again from 1969-73.¹⁶ Apartment and condominium construction subsided abruptly with the recession of 1974 and never again achieved the pace of construction seen in the 1969-73 period. In addition to declining in absolute numbers, multi-family housing construction declined relative to single-family housing after 1973, with the apartment market somewhat saturated and more of the baby-boom generation starting families and moving into their house-buying years.

While some of the multi-family housing constructed during the boom period consisted of urban high-rises, including urban renewal projects, much of it took the form of low-rise, garden apartment complexes in suburban areas. These typically consisted of multiple two-story buildings with separate, common parking

shelters. Some of the larger apartment and condominium complexes had layouts based on cluster planning principles, with considerable areas of open space. Many included facilities for recreation such as swimming pools and tennis courts. Such shared amenities became increasingly popular, probably more than amenities within the individual living spaces, as builders competed for a portion of the youthful apartment market. Townhouses, consisting of attached two-story units, also became increasingly common throughout the 1960s and into the 1970s.

These developments changed the face of the suburbs. Although many of the larger housing tracts of the 1950s included some apartment buildings, these accounted for only a small portion of all housing units, and the suburbs were seen primarily as a realm of families with children living in tracts of detached houses. With the growth of multi-family housing, the suburbs increasingly came to include residents representing a wider variety of life stages and household situations.

Retirement Communities

A new type of housing development, the retirement community, appeared in the United States in the early 1960s. Increasing life expectancy, earlier retirement, and greater income security provided a longer, healthier retirement for many. As a result, older couples and singles whose children had grown represented an expanding segment of the housing market. Merchant builder Del Webb of Phoenix was the first to respond to this market, opening his Sun City development in Arizona in 1960. Webb quickly followed this with several more Sun Cities across the Southwest, from Texas to California.

Webb began Sun City in Riverside County in 1960. Located about 20 miles southeast of the

Leisure World at Seal Beach, Orange County. Built ca. 1962 by Ross Cortese. This development was the second retirement community built in California, and one of the earliest in the United States.



city of Riverside, this was the first retirement community in California. The development included more than 2,500 two-bedroom houses arranged around two golf courses, with other recreational facilities and a commercial center.

Following Webb's example, Los Angeles area merchant builder Ross Cortese developed three Leisure World communities in California in the early 1960s. The first of these, as Seal Beach in Orange County, included nearly 6,500 co-op apartments, a small nine-hole golf course, and the usual complement of swimming pools and clubhouses.¹⁷ The predominantly one-story apartment buildings were rather closely packed into the tract, with an extensive system of walkways and a minimum of vehicular streets. In a 1964 article on retirement communities, *House Beautiful* magazine criticized the architecture as "stark and unimaginative," and compared the development to a military installation.¹⁸ Nonetheless, Cortese sold 4,500 of the co-op apartments in 18 months, clear evidence of a strong demand for this type of housing.¹⁹

Cortese built his second Leisure World (later renamed Laguna Hills Village) in southern Orange County. With 18,000 condominium apartments, this development

was considerably larger than the Seal Beach Leisure World and had more amenities, including stables and trails for horseback riding.²⁰ The third Leisure World (later renamed Rossmoor), located in the Bay Area city of Walnut Creek, opened in 1964.²¹ For this development, Cortese commissioned the prominent Bay Area architect Warren Callister to prepare the master plan and design the buildings.²² Callister grouped the buildings around courts to promote sociability. The same *House Beautiful* article that panned the Seal Beach development praised Cortese's efforts at Walnut Creek, noting that the development "will set the pace for all retirement communities of the future."²³

The retirement communities built by Webb, Cortese, and others were restricted to buyers of a minimum age, usually 52 or 55 years. Although nearly all of the residents owned cars, the golf cart became a popular means of transportation within the community. Monthly condominium or co-op fees frequently included maintenance within the individual units as well as maintenance and landscaping of the common areas, freeing residents from all but day-to-day housekeeping tasks.²⁴ An innovation of Cortese's first Leisure World

developments was the provision of medical clinics, with their operating costs included in the monthly fees.²⁵ This system was superseded by the establishment of the federal Medicare program for senior citizens in 1965.

Retirement communities are primarily, but not exclusively, a Sunbelt phenomenon. With

the demonstrated success of this new housing type, Webb and Cortese expanded to other regions of the country, as forerunners of the nationwide home building corporations that came to play a prominent role in the housing market in the later 20th century.

8

The Industrialization of Housing

In 1949, there were nearly 120,000 builders in the United States, and a larger number of specialist subcontractors such as plumbers, electricians, and painters.¹ For most of these builders, housing construction was carried out in much the same manner that it had been carried out for centuries, with a small group of skilled craftsmen working on a single house from start to finish. Only four percent of builders constructed more than 25 houses per year in 1949, and even the largest companies worked primarily in a single metropolitan area.²

Addressing the severe housing shortage of the immediate postwar years required new methods of building. Advocates for the modernization of housing construction looked to the automobile industry for instructive comparisons. Los Angeles builder Fred Marlow noted that “just as the auto industry met the same mass market, deluged it with fine low-priced cars and put the whole nation on wheels, so the housing industry must build good houses for the masses at prices they can afford.”³ Marlow recommended that builders make their profit from volume sales on standardized products, while keeping the cost of the individual house as low as possible. Builders seeking to increase their production of houses were also inspired by the example of ship and aircraft manufacture, which converted from craft methods to assembly-line production in the early 1940s in order to meet the demands of the war effort.

The war years and postwar period saw the emergence of large companies that led the trend toward mass-production in the field of housing. These large-scale builders were described as

“operative builders” or “merchant builders,” as distinct from both small-scale builders and earlier real estate subdividers. The operative or merchant builder acquired large tracts of land, installed streets and utilities, built the houses, and sold the finished houses as part of a new tract or community. Sherman Maisel, in his study of the postwar housing industry, estimated that prior to the war there were only about 100 companies in the United States capable of building as many as 100 houses per year. By 1949, the number of large builders had increased to 720, and they accounted for an estimated 80 percent of all new houses.⁴

Many of the earliest merchant builders started as real estate subdividers, with a few entering the field of housing construction and experimenting with mass-production methods before World War II. Others were builders who adopted mass-production techniques during the war, in response to government pressure to build many housing units as quickly as possible, both for workers in defense industries and for soldiers on new military bases. Builders with experience in both real estate development and the forced efficiencies of wartime production were well positioned to become large-scale housing developers after the war. The postwar housing market came to be dominated by merchant builders such as William Levitt on the East Coast, David Bohannon in the Bay Area, Fritz Burns in Los Angeles, and others who followed these early leaders. By adopting mass-production methods and economies of scale, these men were able to construct houses at an unprecedented rate and sell them at a lower cost than their small-scale competitors.

William Levitt, president of Levitt and Sons (including his brother Alfred and his father Abraham) became the most famous of the postwar merchant builders. The firm began construction of its first Levittown in 1947, on Long Island in New York State. By 1951, they had built about 17,000 houses in the new community. A second Levittown in suburban Philadelphia was begun in 1952, and a third in New Jersey (now called Willingboro) in 1958. Throughout this period, the Levitt firm was the nation's largest builder of houses.⁵

In California, David Bohannon built about 3,000 houses at San Lorenzo Village in the East Bay between 1944 and 1952.⁶ Henry Doelger began his huge Westlake development south of San Francisco in 1947, eventually expanding it to more than 6,000 houses.⁷ Fritz Burns, in partnership with Henry Kaiser, completed Panorama City in the San Fernando Valley in 1952.⁸ Lakewood near Long Beach was the largest of the new postwar communities in California, with 17,000 houses constructed between 1950 and 1953.⁹ Near Sacramento, the community of North Highlands saw more than 3,000 houses constructed in the early 1950s, in response to the rapid growth of nearby McClellan Air Force Base during the Korean War.¹⁰ Fresno's Mayfair subdivision, begun in the late 1940s, was that city's first large postwar tract, with more than 1,000 houses.¹¹ These are California's Levittowns, where industrialized building methods transformed agricultural lands into entire new communities in just a few years. In addition to thousands of houses, each of these communities had their own schools, churches, libraries, fire stations, and shopping centers.

New Methods of Building

The key to mass-production was not moving the construction of houses to the factory, but

bringing factory methods to the construction site. Fundamental to this process was the division and specialization of labor. The housing tracts put up by merchant builders were assembly lines of a sort, in which the workers moved rather than the product. Merchant builders analyzed the construction process and divided it into a series of discrete tasks that could be assigned to different work crews. Each crew would perform its assigned task repeatedly, moving from house to house, followed closely by the crew performing the next task in the sequence. Each of the following activities might be performed by a separate crew, or could be further subdivided into even more specialized tasks:

- site work, including grading, streets, curbs, sidewalks, and driveways
- utilities
- foundations
- subfloors or floor slabs
- wall framing and sheathing
- roof framing and sheathing
- installation of doors and windows
- exterior wall finishes
- roof shingles
- interior wall sheathing (plaster or gypsum board)
- painting
- floor finishes
- plumbing and lighting fixtures, kitchen cabinets, and appliances
- Clean up
- Landscaping

Of course, this sequence would be followed in the construction of any house, but in a tract of dozens or even hundreds of similar houses, staggered construction would allow different work crews to be carrying out each of these tasks simultaneously, in the same way that different sections of an auto assembly line

would have cars in different stages of completion. Within a large housing tract, one crew might be pouring concrete foundations while carpenters erected walls and roof rafters on an adjacent block. On still another block, workers would be shingling roofs while painters finished the interiors. The developers of Lakewood in Los Angeles County employed 30 separate work crews, including 19 just for different carpentry tasks.¹² At San Lorenzo Village, this process allowed David Bohannon to complete his houses at the rate of one every 45 minutes.¹³ Speed and continuous progress were the keys to profitability, while any event that slowed production could be as catastrophic as stopping an assembly line in a factory.

Industrialization of house building meant eliminating skilled labor as much as possible. Just as in assembly line manufacturing, the merchant builder shifted as many steps as possible in the construction process from skilled craftsmanship to simplified assembly tasks, performed repeatedly. While it might take several years of apprenticeship to become a journeyman carpenter, almost anyone could be quickly trained to nail one piece of wood to another in a particular way, and then repeat the process throughout the workday. The more experienced carpenters could then be assigned to the more exacting tasks such as the fitting and casing of doors and windows. In addition to increasing the speed of production, this simplification of labor was a response to the acute shortage of skilled labor in the early postwar period, due to the atrophy of the building industry during the Depression and World War II.

The rapid construction of houses required precise scheduling of materials as well as labor. All of the components of a house, from doorknobs to bathtubs, had to be delivered precisely when needed and in the exact

quantity and type required. Merchant builders purchased these components in huge quantities at negotiated volume discounts, sometimes directly from the factories rather than from wholesalers. The builders of Lakewood, for example, purchased more than 200,000 doors for this single development.¹⁴ Such economies of scale were possible because all of the houses within a tract were identical or at least very similar, and equipped with the same finish materials, hardware, fixtures, and appliances.

One of the most important innovations was the pre-cutting of lumber. The merchant builder generally set up a temporary mill at the tract or at a nearby railroad siding, where large timbers could be cut and planed to the precise sizes and lengths needed for each house. A complete package of all the lumber needed for a single house, or for a particular stage in the house's construction, would then be bundled and delivered to each building lot. In this way, there would be no sawing required or waste lumber produced at the individual house lot. At San Lorenzo Village, Bohannon's cutting yard turned out 700 rafters per hour.¹⁵

Some merchant builders experimented with various methods of sub-assembly at the mill, such as wall panels (with or without finishes) and pre-hung doors. The construction of wall panels off-site has since become standard practice in house building. The use of prefabricated roof trusses rather than rafters was a later innovation. Fewer than ten percent of all new houses used roof trusses in 1958. This increased to an estimated 35 percent by 1961, and has become standard practice since that time, even among relatively small builders.¹⁶

Merchant builders in California adopted these new methods somewhat in advance of the rest of the country. The partnership of Fred Marlow and Fritz Burns in Los Angeles may have been the first to use pre-cutting, quantity

This view of a housing tract under construction in the Los Angeles area shows a long row of houses all awaiting installation of roof shingles. Note that the street, at right, does not yet have paving or curbs. (Herald Examiner Series, 1946. Courtesy of the Los Angeles Public Library.)



purchases, and other mass-production techniques. Their Westside Village tract, begun in 1938, included 788 houses using a single floor plan.¹⁷ Marlow-Burns followed this with the Toluca Wood tract in the San Fernando Valley, begun in 1941.¹⁸ In the Bay Area, David Bohannon used these methods to build several thousand houses during and immediately after the war.¹⁹ Some observers in the late 1940s referred to the use of temporary sawmills on site and the bundling of complete sets of lumber and other materials for each house as the "California method."²⁰

A few merchant builders, including Bohannon and Levitt, went so far as to acquire lumber mills and stands of timber in Northern California to supply their operations.²¹ Shortages of materials plagued the industry in the immediate postwar years, as factories retooled to serve the domestic market rather than the military. The purchase of timber lands allowed these builders to secure a reliable source of lumber in addition to achieving economies of scale.

The mass-production of housing was assisted by the introduction of new materials and improvements in the shipping and

handling of those materials. Many of these new materials and innovations in materials handling were developed under the pressure of war, and applied to the housing market in the postwar period. For example, lumber was often shipped in boxcars as loose boards before World War II, which had to be laboriously packed at the mill and laboriously unloaded at the lumber dealer. After the war, manufacturers began to package lumber in bundles that could be unloaded from open railcars with small, highly maneuverable forklift trucks.²² The savings in labor made it possible for even a relatively small lumber dealer to invest in a forklift.

The introduction of sheet materials in standard sizes resulted in further reductions in construction time and labor costs. Plywood in four-foot by eight-foot sheets replaced board sheathing for exterior walls and roofs. Gypsum board (also called drywall or sheetrock) replaced lath and plaster for interior walls, allowing relatively high-skilled plasterers to be replaced by generally lower-skilled drywall installers.

The merchant builder required a considerable amount of capital to purchase tracts of land, meet the payroll for an army of



In this view of the Lakewood development in southern Los Angeles County, the street has paving and curbs and the houses have finished roofs, but many do not yet have exterior wall sheathing or finishes. (Lakewood Series, 1950. Courtesy of the Los Angeles Public Library.)

workers, and sustain the organization until the houses could be completed and sold. There were 2,500 workers at San Lorenzo Village at the peak of production in the mid-1940s, while the builders of Lakewood employed more than 4,000 workers in 1951.²³ In addition, merchant builders had enormous investments in trucks and other vehicles, warehouses for storage of materials, equipment, and tools. These builders also needed organizational skills comparable to those of managers in large industrial corporations. Bohannon had a staff of 134 salaried employees in 1946, including foremen, bookkeepers, schedulers, and purchasing agents.²⁴

The postwar housing crisis could not have been overcome without the innovations of the merchant builders. Industrialized production contributed an overwhelming share of the nearly 14 million housing units constructed in the ten years following World War II, and dramatically altered the form and scale of metropolitan areas across the country.²⁵ By the mid-1950s, one of every seven American families lived in a house built since the end of the war, usually within a tract or even an entire new community of similarly new houses.²⁶

Experiments in Prefabrication

To address the nation's postwar housing crisis and make the single-family house more affordable, numerous architects and builders experimented with systems of prefabrication. Advocates of prefabrication looked to other industries for inspiration, particularly the auto industry. In 1952, just three corporations (General Motors, Ford, and Chrysler) produced 87 percent of all American cars.²⁷ The steel industry was only slightly less concentrated, with 15 corporations producing 90 percent of the nation's steel.²⁸ In contrast, the housing construction industry was intensely local and included thousands of builders. Some of the more visionary proponents of prefabrication hoped to see the nationwide distribution of recognizable brands and models of houses, just as the same Ford Fairlane or Chevrolet Bel Air might be seen in any state in the nation.²⁹

One of the best known of the postwar efforts at prefabrication is the Lustron house. The Lustron Corporation of Ohio developed a system of steel building components, including not only structural members but also enameled metal panels for interior and exterior walls and ceilings. Doors and window frames, built-in

*All-metal Lustron house,
northwestern Indiana.*



cabinetry, and even the roof shingles were also made of metal. The only visible materials on the inside or outside of a Lustron house that were not made of metal were the window glass, porcelain bathroom fixtures, and carpet or tile on the floors.

The Lustron Corporation built several different models from their set of standard components, ranging from the two-bedroom Newport of 713 square feet to the three-bedroom Westchester Deluxe, measuring 1,209 square feet.³⁰ Nearly all of the components for a Lustron house could be shipped on a single truck and assembled on a prepared foundation, greatly reducing not only construction time but also the number of different building trades involved. The company shipped a total of 2,680 houses from its Columbus, Ohio factory between April 1948 and May 1950, before bankruptcy brought an abrupt end to the business.³¹ Most of the extant Lustron houses are in the Midwest, where many forms of prefabrication achieved greater popularity than elsewhere in the United States.³² Lustrons can be found in smaller numbers throughout the Southeastern and Mid-Atlantic states. There are

no known Lustrons in California or in any of the states west of the Rocky Mountains.³³

California saw a few experiments in similarly comprehensive prefabrication systems, but these were even less successful than the short-lived Lustron Corporation. In an attempt to find new uses for aluminum after the war, the Consolidated Vultee Aircraft Corporation of Los Angeles developed a house in collaboration with industrial designer Henry Dreyfuss and architect Edward Larrabee Barnes.³⁴ The Vultee House featured wall and roof panels consisting of aluminum skin over a honeycomb-like core, similar to aircraft components. The lightweight metal panels could be produced in lengths up to 18 feet by eight feet in width. Only two prototypes of the Vultee House were constructed, one of which is extant in the Los Angeles area.³⁵

During the war, the architects Walter Gropius and Konrad Wachsmann collaborated on the development of the Packaged House, a system of prefabricated wall, floor, and roof panels of plywood and wood framing, each 40 inches in width.³⁶ The key component of the system was the internal fastening device that



General Panel Corporation house in the San Fernando Valley of Los Angeles. Although the house has been extensively remodeled, the tall, narrow façade windows facing onto the front porch reveal the 40-inch panel width.

allowed the panels to be securely attached to each other without the use of nails or screws. A group of investors formed the General Panel Corporation in 1942 to put the Packaged House system into production.³⁷ At a demonstration the following year, workers assembled and disassembled a prototype house in a single day, impressing the invited government officials.³⁸ However, the corporation failed to get its panels into production before the end of the war.³⁹

In an attempt to respond to the postwar housing crisis, the General Panel Corporation of California was formed in 1946.⁴⁰ The earlier corporation focused on design and engineering, and held the patents to the panel system, while the newer company focused on production and sales.⁴¹ The California corporation acquired a former aircraft factory in Burbank and began production in 1947.⁴² Unlike the Lustron Corporation, which sold complete houses of standard design, the General Panel system was marketed as a kit of parts, allowing designers and builders to devise their own floor plans using the standard 40-inch wide components.

Demand for the Packaged House never rose to a level sufficient to offset the initial investment in the factory and the custom tooling needed to produce the panels. Only a

few hundred houses were built using the system, in California and Arizona, before the company descended into bankruptcy in the early 1950s.⁴³ It is not known how many General Panel houses are extant in California, but there is a small group in the San Fernando Valley of Los Angeles.⁴⁴

The Lustron, Vultee, General Panel, and other similar experiments were all based on proprietary systems of highly customized design that differed from standard practices in the housing industry. For example, the 40-inch panel of the Packaged House may have been optimal for both structural reasons and the design of practical floor plans, but it ignored the fact that plywood is commonly produced in sheets of 48-inch width. As a result, production of the panels required a great deal of cutting and waste, and the system could not easily incorporate other building components dimensioned for the 16-inch and 48-inch modules of typical stud framing. The houses built using such systems were often starkly different in appearance from the typical tract house of the period and never gained wide acceptance by consumers.

Rather than creating completely new building systems, some architects and builders attempted to fabricate building components in

These two houses (right and facing page) are in Vista, San Diego County. Designed by Cliff May and Chris Choate, they were built in 1953 using the designers' prefabricated wall panels.



a factory using typical materials in standard sizes. One of the earliest efforts was that of Kaiser Community Homes, a collaboration between the merchant builder Fritz Burns and industrialist Henry Kaiser. Encouraged by his remarkable success in shipbuilding during the war, Kaiser wanted to address the postwar housing crisis by bringing the same industrial methods to the housing industry. Incorporating in May of 1945, Kaiser Community Homes began factory production of various building components in September of the following year.⁴⁵ The company's Los Angeles factory produced floor and wall panels, plumbing trees, kitchen cabinet assemblies, and other items.⁴⁶ These items were then shipped to the company's housing tracts for installation. For each completed house, about half of the construction labor took place in the factory and half at the job site.⁴⁷ (This estimate probably does not include site preparation and foundations.) While the company built housing tracts in the Los Angeles area throughout the late 1940s and into the early 1950s, factory production of components never realized significant cost savings and was phased out in 1947.⁴⁸

The Los Angeles designer Cliff May developed a series of plans for low-cost houses

in collaboration with architect Chris Choate, using five standard wall panels.⁴⁹ The panels were produced in a factory in Santa Rosa. Upon delivery of the panels and other construction materials, a small crew would be able to erect the building shell in a single day. Tracts of modular or panel houses of May-Choate design were built throughout the state in the early to mid-1950s, from San Diego County to Chico in Northern California. (Some of these, while based on the May-Choate designs, were built using conventional on-site methods rather than prefabricated wall panels.)

The prefabrication efforts of Kaiser Community Homes and Cliff May were only marginally more successful than the Vultee and General Panel efforts, and were short-lived for many of the same reasons. All of these efforts required large investments in manufacturing and warehouse facilities, and none ever gained a large enough share of the housing market to offset the higher initial cost of setting up production. For prefabrication to be profitable, production had to quickly reach and remain at a high enough level to cover the cost of the factory, machinery, and warehousing. Builders who did not use off-site prefabrication methods had substantially lower fixed costs and were therefore in a better position to weather the



inevitable downturns in the highly cyclical housing market. A 1955 article in *Business Week* estimated that prefabrication accounted for only eight percent of all new houses being built in the United States at that time.⁵⁰

Another significant barrier to the wide distribution of prefabricated houses is the diversity of local regulations. While the federal government sets standards for automobile performance and safety, allowing any car that meets the standards to be sold nationwide, the building industry is governed by local codes interpreted by local building officials. Even within a single metropolitan area, what is allowable in one city may be prohibited in an adjacent city.

Prefabrication also saw limited success because a large part of the cost of building houses is the cost of acquiring land and installing utilities, streets, and building foundations. Builders had no opportunity to reduce these costs through prefabrication. Alfred Levitt estimated that these site-preparation tasks accounted for one-third to one-half of the labor in building tract houses.⁵¹ At the same time, the building shell itself could be so cheaply assembled using industrialized on-site methods that there was little potential benefit to off-site prefabrication. The two

innovations that have continued to the present in tract house construction are the factory production of wall panels (usually with exterior sheathing but without interior or exterior finishes) and roof trusses. In both cases, these components are generally produced on demand for the specific design of each house, rather than stockpiled as standard components.

The mobile home is the single exception to the generally meager record of prefabrication efforts. However, much of the success of the mobile home occurred after the period covered by this study. In 1974, a new federal law regulating construction standards for mobile homes led to dramatic advances in the quality of this type of housing.⁵² The eight-foot or ten-foot wide metal boxes of the 1950s and 1960s gave way to 14-foot wide houses of frame construction, and then to 28-foot double-wide houses consisting of two mobile units joined together at the site. With pitched roofs and wood or vinyl siding, the double-wide mobile home is barely distinguishable from a site-built house of similar dimensions.

With these changes came increased consumer acceptance of the factory-built house, more favorable financing by mortgage lending institutions, and the growth of a broader secondary market for used mobile homes.⁵³ The

mobile home came to dominate the low-cost segment of the housing market, and accounted for approximately 20 percent of all new houses built in the United States by the year 2000.⁵⁴ Most California merchant builders had already

moved out of the low-cost segment of the market by the mid-1970s, with the remaining few pushed out by the increasing popularity of the mobile home.

9

House Types and Styles

This chapter provides an overview of the various types and styles of houses built in California from the mid-1940s to the mid-1970s. It is intended to aid those carrying out historic property surveys and National Register evaluations in several ways. Along with the image gallery in the appendix, this chapter may aid in the identification, classification, and dating of postwar houses, and assist researchers in distinguishing the typical from the uncommon. In addition, this chapter can help researchers in assessing the integrity of properties, by distinguishing original forms, materials, and details from later alterations.

As used in this document, *type* refers to shared attributes of overall form, size, and functional organization or plan. *Style*, on the other hand, refers to a set of design features and architectural details. The Ranch and the split-level are different house types, with distinctly different forms, but examples of each can be found in the Storybook, Spanish, and other popular styles of the postwar years. The application of various terms for types and styles of houses is somewhat subjective, and is not uniform among architectural historians or the general public. In addition, the distinction between type characteristics and style characteristics is not always clear-cut. While not advocating the adoption of a rigid taxonomy, this document proposes a set of type and style categories that are useful and appropriate to postwar tract housing in California.

House Types

The years from the mid-1940s to the mid-1970s in California were more than just the era of the Ranch house. Three house types predominated

for tract housing in this 30-year period: the Postwar Minimal house, the ubiquitous Ranch, and a variety of forms collectively referred to as multi-level houses. Multi-level houses could be further divided into 1½ story, split-level, and two-story subtypes. They are grouped together here under the general heading of multi-level houses because all three subtypes came into common use at the same time. Each of the three major house types (Postwar Minimal, Ranch, and multi-level) is primarily associated with a distinct phase of postwar housing construction. The Postwar Minimal house predominated from the end of the war to ca. 1953, giving way to the Ranch house at that time. The multi-level house followed in the early to mid-1960s, becoming at least as popular as the Ranch by the early 1970s.

The Postwar Minimal House, 1945-ca. 1953

The Postwar Minimal house, also sometimes called the G.I. House, is the predominant residence type built in the late 1940s and early 1950s.¹ The type may be seen as a continuation of the small houses built in the 1930s and early 1940s, but the number of such houses built in the postwar years far exceeds the number built before and during the war. The distinguishing characteristic of Postwar Minimal houses is that they are small. In fact, they are typically smaller than the bungalows of the 1910s and 1920s.

Architectural Forum magazine published its “Yardstick Houses” in 1947, showing plans and prices for representative examples of new houses from five of the country’s largest builders.² In addition to Kaiser Community Homes of Los Angeles, the article featured houses by Levitt and Sons of New York and

San Lorenzo Village, Alameda County, 1948. The floor-to-ceiling picture window is a common feature of Postwar Minimal houses.



Lakewood, Los Angeles County, ca. 1950. Characteristic features of the Postwar Minimal house include the one-car garage, small front porch, and lack of roof overhangs.



builders in Baltimore, northwestern Indiana, and Houston. The houses ranged in size from 750 to 1,020 square feet, with the average being 906 square feet. (The 750 square foot Cape Cod house by Levitt and Sons had an unfinished second floor that could be converted by the owner to additional living space.) In California, two-bedroom houses of the period often had fewer than 900 square feet of living area, with some three-bedroom examples having fewer than 1,000 square feet.

These houses were built to satisfy the enormous postwar demand for new housing. In addition to the pent-up demand following a decade and a half of depression and war, the postwar period saw a very high rate of new household formation. These young families

were just beginning to have children, while the working adults were just getting started in their postwar careers. Small family size and relatively small family incomes drove the demand for the Postwar Minimal house.

Builders attempted to meet this demand by reducing the cost of the individual house to a minimum. In addition to reducing the size of the house, builders attempted to achieve economies of scale by constructing tracts of unprecedented size. As a result, many of the largest housing developments of the 1945-1973 period are tracts of Postwar Minimal houses constructed in the late 1940s and early 1950s.

In constructing these new communities, builders sometimes used a single floor plan throughout a tract. Variety was achieved (or



Fairfield, Solano County, ca. 1952. The one-piece, tilt-up garage door with decorative wood trim is typical of Postwar Minimal houses.



Sunnyhills tract, Milpitas, Santa Clara County, ca. 1955. This Postwar Minimal house features a nine-pane picture window and a two-car garage.

at least, monotony somewhat mitigated) by reversing the plan, alternating gable and hip roof forms, and by variations in fenestration, materials, and paint colors. In other tracts, a small number of different plans might be used for variety, but often no more than three or four. Some large tracts have different house plans in different areas, but use a single plan within any given block or group of blocks. For example, at San Lorenzo Village, which was built over several years, the house plan changed from year to year but in some areas all of the houses built in a given year have the same plan.

While the 1½-story Cape Cod form is common for Postwar Minimal houses elsewhere in the United States, houses of a

single story are nearly universal in California during this period. Basements were avoided, because of the threat of earthquakes and because the absence of freezing temperatures meant that foundations could be much shallower than in most of the rest of the country, making deep excavations unnecessary. The houses often have concrete slab floors rather than raised floors with wood joists. Floor plans are compact to minimize the amount of exterior wall area relative to living space. Roof overhangs are generally minimal, and front porches are frequently reduced to a small covered area at the entrance. Even those porches of ample width were frequently too narrow to function as more than sheltered passages.

*Westdale tract, Los Angeles.
The houses in this late-1940s
tract have detached garages.*



A small number of the earliest postwar housing tracts have detached garages, continuing the early 20th century tradition of making the garage a separate building at the rear of the lot. However, garages attached to the house are much more common, and detached garages are quite rare after 1950. One-car garages are more common in the early postwar years, with the two-car garage becoming standard for all but the lowest-price houses by about 1952. Some builders routinely included two-car garages in their tracts as early as the late 1940s, or offered buyers a choice of a one-car or two-car garage. Therefore, while the presence of a one-car garage suggests a construction date prior to the mid-1950s, the presence of a two-car garage is not a reliable indicator of a house's construction date.

Garage doors are typically one-piece, tilt-up doors of wood. Simple geometric designs in wood trim are common on garage doors. The four-piece, roll-up garage doors frequently seen on these houses today are later replacements.

Stucco and various forms of wood siding predominate as exterior wall cladding, with stucco and wood often combined on a single house. Lapped and board-and-batten siding are common, and some builders used a type of wood shingle siding of large scale. Builders rarely used brick or stone due to their higher

cost. (However, some Postwar Minimal houses were built of concrete block rather than wood framing.) Composition shingles were the norm for roofing, due to their low cost and ease of installation. Cedar shakes or clay tile, when seen on Postwar Minimal houses, indicate later alterations.

Windows are mostly wood double-hung or steel casement sash. (Aluminum window frames did not become common until the 1960s.) Double-hung sash in 2/2, 4/4 and 4/1 configurations are common, as are sash divided into two panes by a horizontal muntin. Steel casement sash are also typically divided by horizontal muntins. All of these window types are similar to those used in the 1930s.

One type of window new to the postwar period was the multi-pane picture window. These typically have nine or twelve panes of equal size, either with all the panes fixed or with a few panes, usually along the sides or the bottom row, being operable as casement or awning sash. These windows are nearly floor to ceiling in height and are the dominant feature on Postwar Minimal facades.

The Ranch House, from ca. 1953

By about 1953, the desperate postwar demand for housing had been largely met.³ Nationwide, more than ten million housing units had been



Hanna House, Stanford, California. Designed by Frank Lloyd Wright and built in 1937. (Daniel W. Hartwig, photographer. Courtesy of Daniel W. Hartwig, Palo Alto, California.)

constructed from 1945 through 1953.⁴ From this time on, housing demand was driven primarily by natural population increase and by the desire among growing and more affluent families to trade up to larger houses. A buyer's market began to emerge, following nearly a decade in which almost anything constructed by builders could be sold quickly. As a result, the Postwar Minimal house was increasingly seen as inadequate, and builders responded by constructing larger, more expensive houses on larger lots. By 1955, a majority of the new houses constructed in the United States had three or more bedrooms, and by the mid-1960s the average new house was about 1,500 square feet, or 50 percent larger than the average house constructed in the late 1940s and early 1950s.⁵ A second bathroom or half bath, rarely seen in the Postwar Minimal house, became a standard amenity. Throughout the United States, but especially in California, the architectural response to this demand for larger houses was the Ranch.

Architectural historians have identified numerous sources for the postwar Ranch house. Frank Lloyd Wright's Usonian houses, dating from the mid-1930s until Wright's death in 1959, are sometimes cited as an important influence.⁶ The Usonian house (Wright's own term) was the architect's attempt to provide a

well-designed yet affordable house for the American middle class. Generally smaller and less ornate than his earlier Prairie houses, the Usonians are typically one story with a predominant horizontality, concrete slab floors, walls finished in unpainted board siding and/or masonry on both the exterior and interior, and flat or very low-pitch roofs with broad overhangs. Wright designed more than one hundred Usonian houses, including a dozen in California.⁷ Wright is also credited with coining the term "carport" and popularizing the open carport as an alternative to the enclosed garage.⁸

Several California architects designed informal and rustic houses of a single story in the 1920s and 1930s, which influenced the later development of the tract Ranch or builders' Ranch house. These custom homes drew on the traditions of both the adobe rancho houses of the state's Mexican period and the simple wood structures of later 19th century farms and ranches. For some of these architects, the rustic Ranch house was simply one in an eclectic repertoire of styles that could be used according to a client's wishes. Others saw an affinity with Modernism in the straightforward and unadorned construction of the Ranch house, while retaining a connection to the architectural traditions of the region.

Gregory Farmhouse, Santa Cruz County. Designed by William Wurster and built in 1928. (William W. Wurster/WBE Collection, 1976-2. Courtesy of the Environmental Design Archives, University of California-Berkeley.)



Raas House, Palo Alto, Santa Clara County. Designed by William Wurster and built in 1939. The house exhibits Wurster's distinctly modern yet understated manner.



The houses of William Wurster (1895-1973) are often cited as examples of this modern regionalism.⁹ One of Wurster's earliest houses, the Gregory Farmhouse north of Santa Cruz, is widely credited as an influence on the postwar Ranch.¹⁰ Completed in 1928, the house could be mistaken for something considerably older. The L-shaped building forms two sides of a walled courtyard, with covered galleries facing the courtyard along both wings. The house's floor is only slightly above grade, providing easy access between indoors and out. The exterior walls are clad in vertical board siding of varying widths, suggesting that it could have been built of leftover or salvaged lumber.

Throughout the 1930s, Wurster designed a series of relatively modest one-story houses of wood or concrete masonry construction,

tending away from the studied rusticity of the Gregory Farmhouse toward an understated modernism. These houses are typically long and narrow, with wings extending to form L, T, or H-shaped plans. As in Wright's Usonian houses, the wings are generally only the width of a single room, or a single room and a hallway. Living rooms frequently have extensive glazing on both of their long sides, and direct access to a covered outdoor gallery or an uncovered patio.

More than any other designer, Cliff May (1908-1989) is credited with popularizing the Ranch house. A sixth-generation Californian, May grew up in San Diego and as a young man crafted Monterey style furniture.¹¹ Seeking appropriate settings for his furnishings, May began designing and building houses for sale



House in San Diego designed by Cliff May and built in 1932. This house is characteristic of May's Spanish style designs of the 1930s.

in the early 1930s. The adobe houses of California's Spanish and Mexican periods provided the models and inspiration for May's designs. Working in a revival style that was well-established in Southern California by this time, May designed and built nearly 50 houses in the San Diego area by 1937.¹² In addition to the standard white stucco walls and red tile roofs, May's houses featured a deliberately rustic, hand-crafted character, often incorporating wrought-iron gates and other architectural fragments from earlier buildings.¹³ What distinguished May's houses from other examples of the Spanish or Mediterranean Revival styles was their low, spreading quality and close relationship to the outdoors. They were low in overall height and low to the ground, with easy access to ground-level galleries and patios rather than raised porches.

May relocated to Los Angeles in 1937, where he remained for the rest of his career, producing designs for numerous custom Ranch houses and other buildings.¹⁴ As described in Chapter 8, May also collaborated with Chris Choate to provide standard plans for smaller houses to builders of tract housing. In addition, May worked directly with developers to build subdivisions of Ranch houses. Among the first of these was the Riviera Ranch subdivision in west Los Angeles, begun in 1939 in partnership

with John A. Smith. Located at the base of Sullivan Canyon north of Santa Monica, Riviera Ranch consisted of large, custom houses on lots of up to 2½ acres, with some of the houses having stables for horses. One of the first houses to be built in the tract was May's own residence, which served as the model home for the development.¹⁵

In his Los Angeles houses, May began to move away from the overtly Spanish designs of his earlier work in San Diego, toward a more generically Western look. He combined board-and-batten siding with stucco for walls, and used cedar shakes rather than clay tile for roofs. A rustic and informal character prevailed, even in his largest and most expensive houses. With their low-pitch roofs and elongated plans, May's houses exhibited a predominant horizontality, with wide masonry chimneys providing an occasional vertical counterpoint.

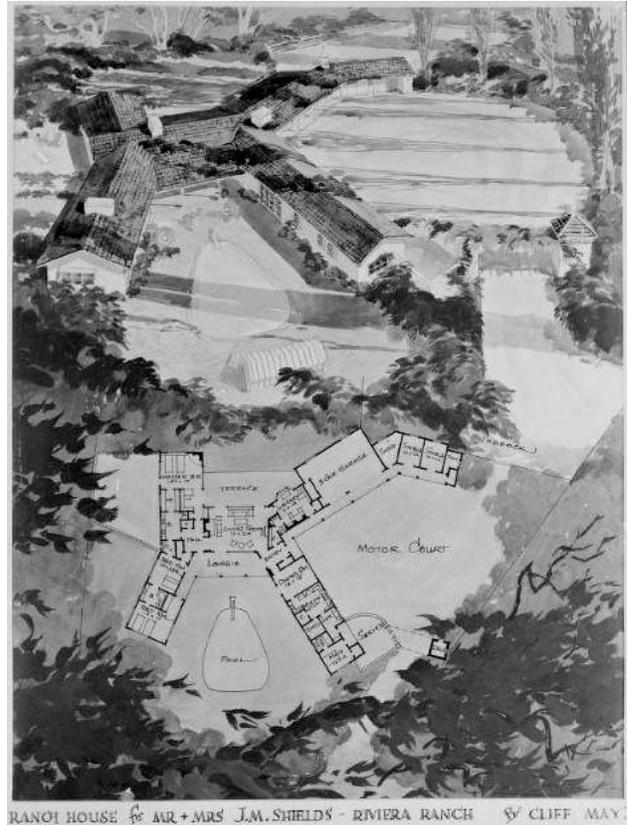
A key characteristic of May's custom Ranch designs is their sprawling character. The houses typically have a large, centrally located living room, from which extend two to four wings containing different functional zones such as bedrooms, kitchen and service spaces, garage and stables, and guest accommodations. In smaller houses, these wings are usually placed at right angles to the main axis of the living room, to form L, U, or H-shaped plans. Among

the larger houses, the wings might extend diagonally to form Y, X, or even more complex plans. The longer wings may themselves bend and change direction, or sprout smaller sub-wings. The various splayed wings provide opportunities for multiple wind-sheltered patios that open up to the larger landscape. Direct access to the outdoors from several rooms is a hallmark of May's designs, and he was among the first to incorporate sliding glass doors into his houses.

As in the prewar houses of Wright, Wurster, and others, May avoided double-loaded corridors. Bedroom and other wings were typically the width of a single room and hall, allowing sunlight and views into the hallways. Although May's houses are generally no more than one story, those built on sloping sites may have floor level changes among the different wings.

New ideas in residential design were promoted and disseminated to architects and builders through various journals. *Architectural Forum* and its sister publication *House and Home* published many of Frank Lloyd Wright's midcentury designs.¹⁶ Both *Architectural Forum* and *Architectural Record* published the houses of William Wurster extensively in the 1930s and early 1940s.¹⁷ The professional journals took somewhat less note of Cliff May's work, but did publish a few of his designs in articles such as "Six Ranch Houses for Modern Living" in *Architectural Record* and "A Big Sprawling House in the 'Ranch Style' is Built on a Four-prong Plan" in *Architectural Forum*.¹⁸

In addition to the architectural journals, the Ranch house was presented to potential customers through magazines such as *Better Homes and Gardens*, *House and Garden*, and *House Beautiful*. These publications were oriented primarily to women as homemakers rather than to architects or builders. Under the editorship



This rendering, for a house designed by Cliff May in the Riviera Ranch subdivision in Los Angeles, shows four wings extending at varying angles from the central living room. It is typical of the sprawling plans of May's larger houses. (Maynard L. Parker, photographer. Courtesy of The Huntington Library, San Marino, California.)

of Elizabeth Gordon from 1939 to 1964, *House Beautiful* took the lead among homemaker magazines in promoting contemporary trends in residential architecture, furnishing, and interior design. As early as 1931, the magazine promoted the rustic Ranch house by awarding first prize in its small-house competition to Wurster's Gregory Farmhouse.¹⁹ In 1946, *House Beautiful* published Cliff May's own Los Angeles residence, with text by May himself, under the title, "We Don't Like Pretentious Architecture."²⁰ The magazine also devoted entire issues in 1955 and 1959 to the work of Frank Lloyd Wright, and the January 1963 issue included a lengthy retrospective on the 1937



Cliff May residence, Los Angeles. Designed by Cliff May and completed in 1956. A wall of glass in the master bedroom opens onto a broad patio. (Maynard L. Parker, photographer. Courtesy of The Huntington Library, San Marino, California.)

Hanna House in Palo Alto, one of Wright's first Usonian designs.²¹

Cliff May was a particular favorite of the editors of *Sunset*, a magazine devoted to Western living. *Sunset* presented May's houses as exemplary settings for gracious yet casual California lifestyles. In publishing Ranch houses by May and other designers, *Sunset* and other magazines promoted not only an architectural style, but a dream of informal living with year-round access to the outdoors. This dream fueled the popularity of the Ranch house beyond California or the American West, even in regions where indoor-outdoor living is decidedly impractical for much of the year. May's emphasis on Western rather than Spanish styling after his relocation to Los Angeles probably aided in popularizing the Ranch house in parts of the United States that had no Hispanic building tradition.

Larry and Ruth Lane, owners of *Sunset* magazine, published *Sunset Western Ranch Houses* in 1946. The book included plans, sketches, and photographs, featuring mostly designs by May but also nine by Wurster.²² More than 50,000 copies were sold, to an audience well beyond California.²³ A few years later, the Lanes commissioned May to design the magazine's new headquarters building in

the San Francisco suburb of Menlo Park. Completed in 1951, the building was basically an oversized Ranch house with a courtyard plan.²⁴ In 1958, *Sunset* published a second plan book, *Western Ranch Houses by Cliff May*, that also sold well.

While Cliff May and the magazines that published his work played a major role in popularizing the Ranch house, the type is not a strictly Californian invention. In addition to May, Wurster, and others in California, many architects and builders across the United States contributed to the development of the modern Ranch house. The majority of Wright's Usonian houses were constructed in the Midwest. The architect O'Neil Ford and others in Texas designed numerous houses based on that state's rural vernacular traditions.²⁵ In Boston, Royal Barry Wills created a series of designs for one-story houses in the Colonial Revival style, which he promoted through plan books similar to those published by *Sunset*.²⁶ (Some of the floor plans by Wills are strikingly similar to those of Cliff May, but the exteriors are clothed in materials and details common to older New England houses.) In spite of the diffuse origins of the Ranch house, merchant builders across the country sometimes marketed their houses as "California Contemporary" or "California

Ranch house in Los Angeles County. Horizontality is emphasized by the continuous eave line, window proportions, and wainscot below the windows.



Oildale, Kern County. The garage projects forward on this L-shaped Ranch house on a narrow lot.



Ranch” designs, in an attempt to capitalize on the Golden State’s postwar aura of informality and indoor-outdoor living.²⁷

Inspired by the houses of May, Wurster, and others, merchant builders expanded the Postwar Minimal house into the tract Ranch. While there is not always a clear distinction between the two types, the Ranch is more elongated rather than compact in form. Larger houses on very wide lots may be extremely elongated in plan.

Tract Ranch houses are low to the ground, with the front entrance generally no more than one or two steps above grade. Horizontality is emphasized by continuous eave lines and wainscots of a differing material below the level of the window sills. Roofs may be hipped, gabled, or a combination, with a relatively low pitch and broad overhangs. Covered entry areas are generally quite small. On some

houses, the covered entry may extend across a portion of the façade, but even these are typically too narrow to be comfortably used as porches. Instead of a large, welcoming front porch, the postwar Ranch is oriented toward the private rear yard, often with direct access from the main living rooms to one or more rear patios. Street facades can even appear quite closed and unwelcoming in some cases, with little or no fenestration other than the front door.

The two-car garage or carport is standard for Ranch houses in California. Detached garages are quite rare, although in some cases the garage is separated from the house by an open breezeway but connected via a continuous roofline. By the late 1960s, some builders were incorporating three-car garages into their plans. Since a single garage door wide enough for three cars would be unwieldy, these typically



An extremely elongated Ranch house in Riverside County, with a breezeway separating the house and garage.

have one two-car door and one single-car door. Where builders platted Ranch house tracts with relatively narrow lots, the garage is often placed at the front of the house rather than to one side. Such houses appear as L-shaped from the street, although in many cases they are actually T-shaped in plan. The garage door may face the front, with a straight driveway, or be placed on the side, with most of the front yard taken up by a curving driveway.

Ranch house roofs are most often clad in asphalt shingles. Cedar shakes may be original on larger examples and those of more rustic character. Clay tile in various forms became more common on later houses, from the late 1960s and 1970s. A minor revival of Spanish imagery in this period brought about an increase in the use of Spanish or Mission tile, although clay tile can also be seen on Ranch houses with no other Spanish details.

As with the Postwar Minimal house, stucco and a wide variety of wood siding materials were used for tract Ranch houses. Merchant builders also used brick and stone more often by the mid-1950s, generally in small areas and limited to facades. Brick and other masonry materials are frequently seen as a wainscot below the level of the window sills. Broad

chimneys and raised planters were other common uses of brick. Facades sheathed entirely in masonry veneer are quite rare in California tract houses, in part because the material is susceptible to cracking and collapse in earthquakes.

Aluminum siding came into common use in the late 1950s, but was marketed primarily as a remodeling material to cover deteriorated siding on older buildings. It is seen only very rarely as an original siding material on houses in this period.²⁸ Window sash and frames of aluminum or other metals became increasingly popular in the 1960s. By the end of the decade, aluminum sliding sash are probably more common than wood double-hung or metal casement windows.

Large picture windows are seen on some Ranch houses. Rather than the floor-to-ceiling multi-pane window of the Postwar Minimal house, Ranch house examples are more likely to have higher sills and to be more horizontal in their proportions. Tripartite designs are common, with double-hung or casement sash flanking a fixed center sash. Another common window type is the shallow window set just below the eave, with the sill above eye level. These are sometimes grouped in horizontal

Sunnyhills tract, Milpitas, Santa Clara County, ca. 1963. This two-story house provides more interior space than a Ranch house, while maintaining a relatively small building footprint on a narrow lot.



bands. Such windows were often used to provide interior light while retaining visual privacy in bedrooms and bathrooms. The high bedroom window also allowed more flexibility in the placement of beds with tall headboards.

Subdivisions of Ranch houses generally exhibit more variety than those of Postwar Minimal houses. In response to both the emerging buyer's market and criticism of the visual monotony of earlier postwar tracts, builders provided a greater number of different floor plans and exterior designs in their Ranch house developments. To ensure a high level of variety, some developers of more upscale tracts resorted to the older method of subdividing and selling lots, rather than building all of the houses themselves. While these developments were marketed as "custom home" tracts, in practice the houses were typically chosen from the builders' repertoires of stock plans, rather than being individually designed by architects.

Multi-level Houses, from ca. 1963

The Ranch was the undisputed king of the California housing industry for more than ten years, from the mid-1950s to the late 1960s. While Ranch houses continued to be built in large numbers into the 1970s, multi-level houses began to appear in greater numbers in

the early 1960s and grew to compete with the Ranch house in popularity by the end of the decade.

The introduction of the multi-level house was a response to the demand for larger homes, resulting from both increasing affluence and larger families. In addition, many of the baby boom children were entering their teenage years by the early 1960s, and families wanted not only more space for children but more separation between activity areas for children and adults. Consumers began to demand four-bedroom and even five-bedroom houses, more bathrooms, and an informal family room as well as a traditional living room.

At the same time, the rising cost of land set practical limits on the growth of the Ranch house, except for custom houses for the wealthy. The cost of acquiring and improving land grew much faster during the 1950s and 1960s than the cost of building materials or labor.²⁹ Builders responded with a variety of designs for 1½ story, split-level, and two-story houses, which provided more living area within a smaller building footprint.

In concentrating on these larger houses, merchant builders focused on the higher end of the housing market, primarily families trading up from older, smaller houses. Compared to the



Pinecrest tract in Glendale, Los Angeles County, ca. 1967. The form is typical of California split-levels, with the garage lower than the main living level and the upper level above the garage.

early 1950s, when 90 percent of home buyers were first-time buyers, the trade-up market had become a much larger share of the total housing market by the mid-1960s.³⁰ Builders targeted the trade-up market through their advertising, which emphasized bigger, better houses. Gone were the earlier references to the dream of “owning a home of your own,” since most of the buyers of the new multi-level houses were already home owners. As rising land costs made it increasingly difficult to profitably build tracts of lower-priced houses, a “starter” house came to mean an existing house rather than a new house.

Much of the nation saw a boom in split-level houses in the mid-1950s.³¹ In California, however, the split-level house is not commonly seen before the general trend toward multi-level houses that began almost a decade later. Split-level houses in the Eastern United States often have the lowest level below grade, either as a full basement or a half-depth basement. The aversion to basements in California precluded this type of design. The California split-level, often called the tri-level by builders, is typically built on a sloping lot with the garage at the lowest level, the main entry level raised from a few feet to a half-story above that, and the upper level above the garage. The front

wall of the upper level may be pulled back to form a balcony or shallow deck above the garage. Split-levels were never as popular in California as other types of multi-level houses, and are generally limited to hilly areas where sloping lots make the design a logical choice. The split-foyer or bi-level house, in which the lower floor is a half-depth basement, is quite rare in California tract housing.

Among the earliest multi-level houses to appear in the 1960s were 1½ story designs, with the second floor having windows in the gable ends and dormers. One unusual type of house appears as a single story (or 1½ stories with a front dormer) at the front, but is a full two stories at the rear. This requires a steeply pitched roof in front with a shorter roof of lower pitch at the rear. The design may have originated as an attempt to visually fit the larger two-level house into tracts consisting primarily of Ranch houses. However, the result is somewhat awkward in appearance, particularly where wider spacing between houses allows more of the side walls to be seen.

Tracts of multi-level houses generally also include at least some Ranch houses. In earlier tracts (those built through the mid-1960s), the multi-level houses are sometimes grouped together in a small area, such as one or more

Kingspark tract, Simi Valley, Ventura County. Built ca. 1965 by the Larwin Company. The house appears from the front to be 1½ stories, but is a full two stories at the rear.



cul-de-sacs, within a tract of predominantly Ranch houses. In later tracts, the single-story and multi-story houses are typically mixed on the same streets and blocks.

House Styles

A variety of architectural styles are seen in California houses of the postwar period. This section reviews the most common styles, recognizing that architectural style terms are imprecise and that some houses exhibit elements of more than one style. In addition, the majority of postwar tract houses probably cannot be said to possess any architectural style. As applied to houses of low or moderate cost, some of the more popular styles were little more than the efforts of a highly competitive building industry to create an image with market appeal.

Contemporary Style

The Contemporary style is one of the most visually distinctive of postwar house styles. From the perspective of the 21st century, it is also probably the most evocative of the early postwar years, symbolizing the period's optimism, faith in science and technology (notwithstanding the nuclear threat), and enthusiasm for the new and improved. The style is also strongly associated with the period

because of its affinity with other design trends of the time, in areas such as furniture, product design, and graphics.³² "Contemporary" was the term used at the time to describe houses with a more modern look than the typical tract house.³³ Merchant builders who promoted the Contemporary style often did so in a self-conscious effort to bring modern design to the general public.

The first Contemporary houses appeared shortly after the war and were clearly of the Postwar Minimal type. Small size, compact plans, and a limited number of variations per tract are characteristics that the earliest Contemporary houses share with other Postwar Minimal houses. Merchant builders were intensely focused on economy in the late 1940s and early 1950s, and some thought that the Contemporary style afforded opportunities to build at a lower cost. In particular, very low-pitch or flat roofs, relatively open floor plans, and the use of post-and-beam rather than stud construction were characteristics of many Contemporary style houses that builders touted as cost-saving innovations.

One of the most conspicuous features of the Contemporary house is the very low-pitch or flat roof. While the low gable is the most common form, butterfly roofs (lower in the center and higher at the ends) and single-pitch



Rosemary Village tract, San Jose. The Western Construction and Realty Company built this small tract of Contemporary style houses in 1952.

roofs are seen on some examples. Other common characteristics include glazing in the triangular gable ends and projecting roof beams on those houses using post-and-beam construction. Carports rather than garages are more common among Contemporary houses than in other postwar styles. Contemporary houses often have extensive areas of glazing on rear walls, opening to the back yard, while the street facades can have quite minimal fenestration (other than the ubiquitous glazed gables).

Stucco and various forms of wood siding are common for exterior walls. Siding types that are applied vertically, such as board-and-batten and tongue-and-groove, were more popular than lapped or other horizontal forms. Areas of masonry are more likely to be concrete block than brick, sometimes with patterned faces and frequently set in stack bond rather than running bond. Contemporary style houses may have screen walls of open concrete block around entries or patios. Windows are often incorporated into horizontal bands with contrasting wall materials, often surrounded by wood trim forming a boldly scaled frame. Garage doors are typically unornamented, and are often clad in the same wood siding material as the walls. Entry doors are also usually plain and solid, but may have sidelights or transoms

to bring daylight into the entry space. Roof overhangs, canopies, and carport roofs may be supported by steel pipe columns or relatively slender wood posts.

A majority of Contemporary style houses were built using post-and-beam construction, a departure from the typical method of house building in the United States. In the much more common method of stud construction, walls consist of vertical wood studs, typically two-by-fours, spaced every 16 inches. Floor and ceiling joists and roof rafters use the same spacing but are somewhat larger, from two-by-six to two-by-twelve, depending on the anticipated load and span length. Stud construction has been the standard method of building houses since the mid-19th century, when mass-produced lumber of uniform dimensions and mass-produced steel nails made this method faster and cheaper than traditional heavy-timber framing.

In post-and-beam construction, timber posts and beams of larger size could be much more widely spaced, up to eight or ten feet, with beam spans more than twice that distance. Posts are typically four-by-four or six-by-six, with beams four or six inches in width and 16 or more inches deep. Heavier roof planking than was common for stud construction made the post-and-beam structure sufficiently rigid to resist racking or twisting.³⁴ The spaces between

Contemporary style house of concrete block in Fresno, with glazing in the shallow gable.



Greenwood Highlands tract, Sacramento County. Built ca. 1954 by Cowden Construction.



posts could be filled with glass or prefabricated, non-structural wall panels. The system made it easier to provide a much higher proportion of glazing to solid walls as compared to stud framing, where each window opening must be framed into the stud system.

Post-and-beam construction greatly reduces the number of structural components and allows for faster erection of the building frame. Some builders believed that this advantage would result in lower construction costs. However, this method also required a higher level of precision and finish, since the structural components would typically be left exposed as an important feature of the building's design. In contrast, walls of stud construction could be erected with less concern for precision or cosmetic damage, since the studs would be covered with plaster or drywall. In addition, the increasing use of shop-fabricated wall

panels in stud construction further reduced the time required for the erection of walls at the building site. Not all builders were convinced that post-and-beam construction cost less than stud construction, and those builders who used post-and-beam methods extensively often did so out of an ideological commitment to the method and the resulting architectural expression, rather than for reasons of economy.

A few builders experimented with steel framing for post-and-beam houses, which allowed for even greater spacing of posts and longer spans than wood. In spite of the savings in material and erection time, steel was never competitive in cost with wood, and the cost difference widened with the rise in steel prices during the Korean War. Only a small number of steel-frame tract houses were built, and there are no known tracts in California consisting entirely of steel-frame houses.³⁵



*Fullerton Grove tract,
Fullerton, Orange County.
Built ca. 1954 by Pardee-
Phillips Construction. Jones
and Emmons, architects.*



*Lake Murray Village tract,
La Mesa, San Diego County.
Built ca. 1958 by Hobart
Homes.*

Bay Area developer Joseph Eichler was the nation's leading builder of Contemporary houses.³⁶ (Eichler did not build houses nationwide, but was recognized nationally as having the largest operation devoted entirely to tract housing of Contemporary design.) Eichler not only responded to the market for Contemporary houses, but is credited with helping to create and expand that market by popularizing his version of the style. Eichler's firm constructed more than 11,000 houses in a period of about 20 years, mostly in the Bay Area but also in Sacramento and the Los Angeles area.³⁷

A small number of merchant builders, including Eichler and the Streng Brothers in Sacramento, were known for their recognizable Contemporary style houses. At the same time, many builders experimented with one or a few tracts of Contemporary houses over the course

of their careers, while primarily building houses of more conventional design. Some builders included one or two Contemporary model houses within tracts of predominantly traditional designs, to increase variety within a tract and appeal to the more adventurous home buyer. These are often of stud construction rather than post-and-beam, consistent with the rest of the houses in the tract. More often, however, and particularly where post-and-beam construction was used, the style is seen in tracts consisting entirely of Contemporary houses. Even builders who constructed both Contemporary and traditional houses generally built tracts consisting of Contemporary models only, partly due to the logistical difficulty of combining the two methods of construction within a single tract, and possibly also out of a belief that modern and traditional designs did not mix well.

Fairmeadow tract, Palo Alto, Santa Clara County. Built in 1954 by Eichler Homes. Jones and Emmons, architects.



San Fernando Valley, Los Angeles; built ca. 1955.



Tracts of Contemporary houses are often relatively small compared to those of more traditional design, with many consisting of 50 to 150 houses. While postwar tracts containing more than 300 houses of traditional design are not uncommon in California, only a small number of Contemporary house tracts were built at that scale. The generally smaller size of Contemporary tracts may be due in part to cautious estimates by builders of the size of the market for Contemporary design.

Eichler and other builders who were committed to modern design (and to post-and-beam construction) frequently hired prominent architects to design their houses. Eichler worked with the partnership of Robert Anshen and Steven Allen, and later with A. Quincy Jones, Frederick Emmons, and Claude Oakland. Eichler also hired the well-known landscape

architect Thomas Church for the landscaping of some of his tracts. As a result, Eichler's houses, along with those of the Streng Brothers and the father-son team of George and Robert Alexander in Southern California, tend to have a more refined quality when compared to the houses of builders who only occasionally dabbled in the Contemporary style or those who did not commission designs from prominent modernist architects.

As the Postwar Minimal house gave way to the Ranch in the early 1950s, Contemporary style houses also grew larger. Elongated forms became more common, in addition to L-shaped and T-shaped plans. A few builders adopted atrium plans in the later 1950s, with three wings wrapped around a central atrium.

The Contemporary style achieved its greatest popularity in the early to mid-1950s,



This Rustic Ranch in Bakersfield features x-bracing on the garage door, a diamond-pane window sheltered by a pent roof with shaped brackets, and a prominent (but fake) birdhouse.



Parkway Estates tract, Sacramento, ca. 1960. Irregular shingle siding and a diminutive gable on brackets give Storybook charm to this house.

declining thereafter. While numerous merchant builders constructed tracts of Contemporary houses during the first ten years after the war, only a small number maintained a commitment to the style beyond the 1950s. With its origins in the severe postwar housing shortage of the late 1940s, the Contemporary style inevitably came to be seen as somewhat dated in the more affluent 1960s. In addition, post-and-beam construction was poorly suited to the increasingly popular multi-level houses of that decade.

The Rustic Ranch and Storybook Styles

The Rustic Ranch style appears with the first tract Ranch houses of the early 1950s. The style was not universal for Ranch houses, but some builders incorporated rustic features that conveyed an association with the rural or

agricultural traditions of the American West. These features typically had as much to do with Hollywood's interpretation of Western rural traditions as with actual vernacular buildings. In addition, the lots on which these tract Ranch houses were built were much too small to serve as actual farms or ranches. Nonetheless, a Rustic Ranch house in the suburbs could give the many first-time home buyers of the 1950s some sense of being masters of a rural or at least semi-rural estate.

Board-and-batten siding was a favored material for the Rustic Ranch style, often used in combination with other types of wood siding, stucco, or small areas of masonry. Exposed and often shaped rafter ends are common, as are projecting ridge beams. Cedar shake roofs were preferred to asphalt shingles where the budget allowed. On larger houses,

Emerald Hills tract, San Diego, ca. 1957. Storybook details on this small house include the steep gable on brackets, scalloped bargeboard, and decorative shutters.



varying roof levels give the suggestion that the house has been expanded over time. Decorative features include x-bracing on garage doors, diamond-pane windows (usually with wood muntins rather than leading), porch posts with decorative knee-braces, and shaped brackets supporting pent roofs or roof overhangs. Birdhouses or dovecotes were also popular, either attached to the roof or incorporated into the gable walls. In many cases these were purely decorative, with the holes for birds simply painted on.

While generally masculine in its imagery, the addition of a few more decorative details in the second half of the decade transformed the Rustic Ranch into a more feminine new fashion variously called the Storybook, Cinderella, or Hansel and Gretel style. In Southern California, it was sometimes called the Disneyland style, as it first appeared shortly after the opening of Disneyland in Orange County in 1955. The style was described at the time as a consumer-driven reaction to the minimalism of contemporary architecture. Its designers sought to impart a romantic charm to tract houses that was based more on fantasy or fairy tale associations than rural traditions.³⁸ In addition to incorporating many of the features of the Rustic Ranch style, Storybook designs made use of details borrowed from or inspired by the Tudor

Revival and other Period Revival styles of the 1920s and 1930s. Common Storybook details include:

- planter shelves or planter boxes below windows (also seen on earlier houses)
- decorative window trim or shutters
- scalloped or shaped bargeboards
- corbel blocks or brackets supporting shallow gable overhangs
- asymmetrical gable roofs and concave, “catslide” roofs, often extending well below the main eave line

These features could be applied in various combinations to create a greater sense of variety within a tract, while using only a limited number of different floor plans. As with the Rustic Ranch, two or more siding materials would often be used. Exterior walls of stucco are common, but builders also favored highly textured materials for at least part of the house, such as board-and-batten or shingle siding. Builders commonly mixed the Storybook style and houses of less decorative design within the same tract. In Sacramento’s Parkway Estates subdivision, for example, only about one-quarter of the houses feature Storybook details.

Storybook houses originated in the Los Angeles area in 1955, and quickly became popular among the region’s consumers and



*San Fernando Valley,
Los Angeles, ca. 1958.
Heraldic imagery was a
popular form of ornament for
Storybook houses, as seen on
the shutters of this house.*

highly competitive merchant builders.³⁹ The style took San Diego by storm in 1957, where it was promoted with names like “Cinderella Homes” by Pardee-Phillips Construction and the “Princess Park” subdivision by Lomax Construction.⁴⁰ Not simply a Southern California phenomenon, Storybook houses can be found throughout the state in tracts built during the late 1950s and early 1960s.

The Storybook style was relatively short-lived, as buyers quickly tired of the rather contrived quaintness. Market saturation, particularly in Southern California, probably also contributed to the style’s demise. In 1960, the builders’ journal *House and Home* published an article titled “Is this the end of Storybook design?”⁴¹ The article includes a photograph of workers removing the ornament from a tract house by builder John Long of Phoenix, in an attempt to revive lagging sales by reverting to a simpler and more modern appearance. Storybook design was in decline throughout California in the early 1960s, and had passed completely out of fashion by the middle of the decade. The Rustic Ranch also declined in popularity at this time, as less decorative Ranch houses became the norm. Houses with some rustic details continued to be built through the mid-1960s, but these tended to be plainer than the earlier examples.

Asian Influence

The early to mid-1960s saw a brief vogue for houses with a distinct Asian influence in exterior styling. These houses typically have gable-on-hip roofs with latticework in the gables, and often have projecting ridge beams with shaped ends. The concave roof forms and upturned eaves of Asian architecture were not features of the style, as these are difficult and expensive details to build in a tract house. However, a slight change of pitch or upward flare at the corners of the eaves or at the ends of the roof ridge was sometimes used to suggest Asian roof forms. Some examples have double-pitch roofs, with a steeper gable portion atop a hip portion of lower pitch.

Exteriors may have regularly spaced trim boards that divide the walls into vertical panels. Some builders incorporated decorative wood screens or window grilles into their designs. Although original garage doors are no longer common on houses from the early 1960s, those that remain may have geometric ornament of vaguely Asian inspiration.

The earliest tract house examples of the Asian style in California appear in the last years of the 1950s. The style’s increasing popularity in the early 1960s may be due in part to promotion by *House Beautiful*. The magazine devoted its August and September 1960 issues to the

Rowland Heights, Los Angeles County. Built ca. 1963 by Futurama Homes. Note the slightly upturned eaves at the corners, which impart a subtle suggestion of Asian roof forms.



Pinecrest tract, Glendale, Los Angeles County. Built ca. 1967 by the Webster Wiley Company. Features associated with the Asian style include the projecting ridge beam, lattice decoration in the gable, and wood trim that gives the walls the appearance of individual panels.



Japanese house, covering architecture, interiors, decorative arts, and household objects. The September issue included an article titled "How Americans are Using Japanese Ideas," featuring a house of custom design that included all of the exterior details adopted by merchant builders for their mass-produced versions of the style.⁴²

The Asian style reached the height of its popularity from about 1962 to 1964. It is most often seen on the Ranch house, as that was by far the most popular house type of the period, but some split-level and two-story examples were built. The style was never as common as the earlier Storybook style, and generally accounts for only a minority of the houses within any tract. The style saw a rapid decline in popularity after the middle of the decade,

although later examples can be found. As with the Rustic Ranch and the Storybook style, more ornamented houses generally fell out of favor after the mid-1960s, to be replaced by a simpler and more clean-lined look in tract housing.

Sweeping-roof Houses

The earliest of the multi-level houses put up by merchant builders tended to be rather boxy in form. Usually only a portion of the house has two levels, with a one-story portion to one side or projecting toward the front. The garage may form a third distinct volume, with each volume having its own roof.

Toward the end of the 1960s, tract house designers integrated these separate volumes beneath broad, sweeping roof forms. In addition to giving the houses a more unified



Chino, San Bernardino County. Built ca. 1973 by Ponderosa Homes. The entire width of this house is covered by a broad, asymmetrical gable, with a secondary gable covering the garage and entry area.



Ponderosa North tract, San Jose. Built ca. 1973 by Ponderosa Homes. With gables at the sides rather than front and rear, the roof is the dominant feature of this house. Note the small roof trellis to the right of the entry.

exterior appearance, these new designs provided opportunities for the vertical expansion of interior spaces. Rather than stacked slabs of space, these houses became more open in three dimensions. Tall entries of 1½ to two stories are common, along with sloped ceilings in the main rooms, open stairways, and interior balconies that look down from the upper levels into the high-ceilinged rooms below.⁴³ Tall front entries and sloped ceilings became so popular that they were incorporated into the design of single-story houses as well.

These houses also have tall covered entries on the exterior, with the roof overhang typically carried by a large wood beam supported at one end by a freestanding column. To further

emphasize the entrance, double front doors are much more common than on earlier postwar houses. Some houses from this period have trellis effects at the front entrance, with the roof sheathing and shingles omitted in certain areas, leaving only the regularly spaced rafters. Verticality is emphasized on facades by the use of piers, projecting bays, and changes in siding materials.

Stucco is widely used on exterior walls, often in conjunction with more textured wood siding materials such as shingles or rough-sawn boards. Masonry continued to be used sparingly, for piers, small areas framed by piers, or wainscots below the level of the first-floor window sills. As with earlier postwar houses, garage doors are usually the one-piece,

San Diego, ca. 1971. The Mansard roof in this example does not enclose an upper floor, but simply gives the one-story house a greater visual prominence.



tilt-up type, and often clad in wood siding that matches that of the house. Builders began to use roll-up garage doors in the early 1970s. These are of wood, and can be easily distinguished from later, vinyl-clad roll-up garage doors. Aluminum sliding sash are common by this time, rather than the wood double-hung or metal casement windows of earlier postwar houses.

While the origin of the Ranch house may be disputed, this new style of multi-level house appears to be a true West Coast invention. *House and Home* published an admiring article in the spring of 1969, titled “California: Here it Comes,” attributing the state’s record of innovation to the size and intensely competitive nature of its housing market.⁴⁴ While noting with approval the generally “quiet exteriors” of the new California designs, the article was effusive in its praise for the interiors:

Beyond the dazzle of the decorating is a new kind of interior space – expressed in terms of high ceilings, changes in levels, balconies, martini pits, etc. – which creates a totally different living atmosphere.”⁴⁵

Sweeping-roof houses came to dominate much of the California housing market by the early 1970s, and tracts of such houses can be found throughout the state.

Later Eclecticism

In the late 1960s and early 1970s, builders continued to increase the variety of house forms and styles found in their tracts. In addition to sweeping-roof designs, two other distinctive roof forms gained some degree of popularity in this period. The more common of these was the Mansard roof, most often seen on apartment buildings but used on some single-family houses as well. In single-family houses, the Mansard roof does not always incorporate a habitable upper floor, but does give the tract house an increased height and visual prominence which builders hoped would appeal to buyers.

The second distinctive form is a sort of inverted Mansard. This design has a hip roof of low pitch surmounted by a raised center portion with steeply pitched sides. Both of the visible roof pitches are typically clad in shingles, although the sides of the raised center portion are sometimes stucco or other material rather than shingles. Some examples consist of a cluster of square or rectangular forms, each with its own separate inverted-Mansard roof.

This eclectic period also saw a minor revival of Spanish styling for tract houses. The Spanish Colonial Revival is a style with a long and popular tradition in California, which continues to the present. In tract houses of the late 1960s



San Diego, ca. 1971. The inverted-Mansard roof conjures a tropical or South-Pacific association.



San Simeon tract, San Diego, ca. 1968. This sweeping-roof house is given a Spanish accent with a heavily paneled garage door and front door. Note also the deeply recessed front door, suggesting walls of thick adobe construction. (In fact, the walls are stucco over conventional wood framing.)

and early 1970s, elements of the style included the customary stucco walls and clay tile roofs as well as arched entries or arcaded front porches. Visually heavy, paneled garage doors and entry doors were also popular, along with boldly scaled lintels over doors and windows. Other features borrowed from the Spanish Colonial Revival of the early 20th century include ornamental ironwork, attic vents of grouped clay pipes, and heavy corbels supporting overhangs or balconettes. These decorative details are typically applied to sweeping-roof house forms, making the Spanish style a smaller subset of the sweeping-roof style.

While sweeping-roof designs dominated new tract housing in this period, and Ranch

houses remained popular, the Mansard and inverted-Mansard styles represent the two most common alternatives in California. These houses generally make up only a small minority of the houses within any tract. Even more rare in California are styles that achieved greater popularity elsewhere in the United States, such as the postwar versions of the Colonial and Tudor Revivals. The Mansard and inverted-Mansard styles were short-lived efforts by merchant builders to produce visually striking house designs. The Spanish style, however, with its deep roots in California, evolved into the more generic Mediterranean style that currently dominates that state's tract-housing market.

Condominium Building One at Sea Ranch, Sonoma County. Designed by MLTW and built in 1965. (William Turnbull/MLTW Collection, 2000-9. Courtesy of the Environmental Design Archives, University of California-Berkeley.)



Sea Ranch Style

Sea Ranch is a community of mostly vacation houses along the northern Sonoma County coast, about 100 miles north of San Francisco. Covering more than six square miles, the development currently includes more than 1,600 houses as well as several recreational and commercial buildings.⁴⁶ The prominent landscape architect Lawrence Halprin carried out the initial site planning, and numerous architects have contributed to the building stock. The architectural firm of MLTW (Charles Moore, Donlyn Lyndon, William Turnbull and Richard Whitaker) completed Condominium Building One in 1965. Comprised of grouped shed-roof volumes with no roof overhangs and unpainted vertical wood siding, the building set the tone for subsequent construction at Sea Ranch. An athletic center, also by MLTW, was completed the following year, along with several individual houses designed by Joseph Esherick and Associates.⁴⁷ The Esherick houses are similar in character to the condominium building, but are clad in wood shingles rather than vertical board siding.

The first house in what is now recognized as the Sea Ranch style was probably Esherick's Cary house in Marin County. Completed in

1961, it predates both the condominium building and the individual houses at Sea Ranch.⁴⁸ It was the buildings at Sea Ranch, however, that caught the eye of both the architectural profession and the general public.

In addition to being lauded for its ecologically sensitive land use, Sea Ranch was much admired as a new direction in residential architecture. *Progressive Architecture* featured the development in its May 1966 issue, with the condominium building on the cover. The magazine published several of the individual houses in the following years, as did other architectural journals.⁴⁹

Also in 1965, the architect Charles Gwathmey designed a beach house for his parents on the south shore of Long Island in New York state, and followed this with several similar but larger houses.⁵⁰ Like the Sea Ranch buildings, Gwathmey's designs featured vertical wood siding, single-pitch roofs with no overhangs, and large window openings with minimal framing and detailing. Other prominent architects designed houses in a similar idiom in the northeastern and mid-Atlantic states in the later 1960s and early 1970s.⁵¹ These East Coast examples generally exhibit a more refined quality, treating the



San Rafael, Marin County, ca. 1971. This Sea Ranch style house consists of a cluster of single-pitch roof forms set in a pinwheel pattern.

building as a sculptural object in the landscape, and are more clearly related to the Modernist tradition in architecture. In contrast, the Sea Ranch buildings tend to be more informal in character, more in harmony with the landscape and informed by the local vernacular of barns and other agricultural buildings.

The Sea Ranch buildings and their East Coast counterparts proved to be highly influential, although that influence was brief. The professional journals introduced the new style to architects and builders, while homemaker magazines such as *House Beautiful* and *House and Garden* popularized the style among consumers.⁵² By the end of the 1960s, California builders had begun to construct vacation houses and resort-style apartment complexes based on the forms and imagery of the Sea Ranch buildings. By the mid-1970s, such designs constituted a recognizable new style for housing nationwide, particularly for apartment and condominium buildings. The style is sometimes referred to as the Shed style or Shed-Roof style.

Sea Ranch style buildings typically have multiple single-pitch roofs, usually of the same pitch but sloping in different directions. Wood shingles are frequently used for exterior wall

cladding, while other examples have board-and-batten or flush board siding. In some cases, wood siding is installed diagonally, parallel to the roof pitch. Whether clad in shingles or wood siding, the exterior walls are frequently stained rather than painted, and left to weather to a darker and softer appearance.

Windows are often quite large, using large panes of glass rather than subdividing the windows into smaller panes. Fixed sash windows are also common. Monitor windows, set in the narrow wall area between higher and lower roofs, are more common in builders' examples of the style than in the original Sea Ranch buildings. Windows often show a great deal of variety in their sizes and proportions on a single building, and their placement is frequently irregular or seemingly random as seen from the exterior. Window and door openings are set flush with the exterior walls and have a minimum of trim. Along with the absence of roof overhangs, this gives the buildings a simple appearance that emphasizes the overall form rather than construction details.

The materials and imagery used in the Sea Ranch style had a strong appeal during a period of increasing concern about damage to

Palo Alto, Santa Clara County, ca. 1972. In addition to its overall form, Sea Ranch style features of this house include vertical wood siding, the lack of roof overhangs, and monitor windows.



the environment. Growing alarm over air and water pollution, as well as critiques of visual blight such as Peter Blake's *God's Own Junkyard*, contributed to the passage of the National Environmental Policy Act in 1969, the first Earth Day observance in the spring of 1970, and the establishment of the Environmental Protection Agency at the national level later that year. The popularity of the Sea Ranch style for housing coincided with what Chester Liebs termed the Environmental Look in commercial architecture.⁵³ Many chain restaurants and retail businesses abandoned the exaggerated modernism that had been common up to the mid-1960s, adopting a quieter and more woody imagery for new or remodeled buildings. Natural materials were the hallmark of the Environmental Look, especially dark-stained wood or shingle siding.

Condominium Building One at Sea Ranch was listed on the National Register of Historic Places in 2005, only 40 years after its construction, in recognition of the building's significance and influence. Many builders' examples of Sea Ranch style houses and

apartments will be approaching the 50-year threshold for National Register consideration by the years 2015 to 2020. Some of these may meet National Register criterion C as distinctive examples of a briefly popular new style in housing.

Regional Variation

All of the house types and styles described in this chapter can be seen throughout California. However, they did not appear at the same time or achieve the same level of popularity in all regions of the state.⁵⁴

The multi-level house appears earlier in the San Francisco Bay Area than in other parts of the state. In the Los Angeles area, multi-level houses begin to appear regularly in new tract construction from about 1963-64. In contrast, houses of 1½ and two stories can be found in new tract construction in the Bay Area as early as the mid-1950s, a period when almost nothing other than Ranch houses were being built in Southern California or the Central Valley. This may be due to the constraints of topography and water in the Bay Area, with the resulting

scarcity of developable land forcing land costs upward. In addition, the Bay Area has a longer tradition of multi-story housing and greater residential density than in other regions of the state.

In contrast to the state's coastal cities, the Ranch continued to dominate the market for new houses in California's Central Valley through the late 1960s and early 1970s. The persistence of the Ranch house in this agricultural region may be partly due to its rural associations, but is also probably a result of lower land prices and the fact that lower-priced houses continued to make up a larger share of the market compared to the state's coastal regions. The continuing popularity of the Ranch house into the early 1970s can be seen in the major cities of the Central Valley, such as Sacramento and Fresno, as well as in the region's smaller cities and towns.

The Contemporary style appears in all regions of the state in the immediate postwar years and into the 1950s. The major regional

difference is that the work of a single builder, Joseph Eichler, makes up a notably high proportion of the postwar housing stock in several of the Bay Area's Peninsula and South Bay communities.

Later styles such as the Storybook, Asian, and sweeping-roof styles typically appeared first in the Los Angeles area and then spread to other parts of the state. While there are some tracts that include Storybook and Asian designs in the Bay Area, these styles never achieved the level of popularity seen in Southern California. Bay area builders were also slower and more tentative in adopting the sweeping-roof style. Although the style is seen in the Bay Area, the earlier, boxier form of multi-level house also remained popular into the early 1970s, after it had been completely displaced by the new sweeping-roof style throughout Southern California. Overall, Bay Area builders were more conservative in adopting new styles (or fads) in residential design.

10

California Architects and Builders

Architects

The eight architects and firms discussed below were some of the most prominent designers of postwar tract houses in California. Five of these architects and firms, as noted in the following list, had their offices in the Los Angeles area, with two others in San Francisco and one in Sacramento:

- Gregory Ain (Los Angeles)
- Anshen and Allen (San Francisco)
- Edward Fickett (Los Angeles)
- Jones and Emmons (Los Angeles)
- Cliff May (Los Angeles)
- Claude Oakland (San Francisco)
- Palmer and Krisel (Los Angeles)
- Carter Sparks (Sacramento)

The list above is not exclusive, and further research may bring to light other architects who played an important role in the design of tract housing. Almost all of these architects' designs were for post-and-beam houses in the Contemporary style. Those architects who designed tract housing of stud construction in the more conventional styles of the period tended not to receive the recognition accorded to the designers of Contemporary or Modern houses, and in many cases their names are not well known today. The architects included in this section are those whose tract house work was published and praised at the time and is celebrated today by enthusiasts of mid-century modern design. All of these architects could be considered "masters" when evaluating properties as the "work of a master" under National Register criterion C.

Gregory Ain

Gregory Ain (1909-1988) was born in Pittsburgh and moved to Los Angeles with his family as a young boy.¹ He enrolled in the architecture program at the University of Southern California, but left before receiving a degree.² Ain's formative learning experiences were gained from association with the two leading modern architects of Los Angeles in the 1930s, Richard Neutra and Rudolph Schindler. Ain joined Neutra's office in 1931 and occasionally assisted in Schindler's office, before establishing his own practice in 1935.³

Ain primarily designed individual houses and small apartment buildings in the late 1930s. He joined the design office of Charles and Ray Eames in 1942, where he played an important role in the firm's production of molded plywood leg splints for the military. He also assisted in the development of the firm's molded plywood chairs, now considered icons of modern furniture design.⁴

After the war, Ain continued to primarily design individual houses and small apartment buildings. He began teaching architecture at the University of Southern California in 1952, carrying on his private practice at a diminished level from that time. While he was not a prolific designer of tract housing, Ain did receive a few opportunities to develop plans for new housing tracts in the early postwar years. The first of these was the Park Planned Homes subdivision in the Los Angeles suburb of Altadena, built from 1945 to 1947. Although originally planned for 60 houses, only 28 houses were built along a single street (Highview Avenue).⁵ All of the

Mar Vista tract, Los Angeles, 1947-48. Gregory Ain, architect. The west-facing house (top) has an entrance canopy, while the east-facing house (below) does not.



houses had the same floor plan, but were built in pairs having reflected plans with paired driveways between them.

Ain's most significant achievement in tract housing was the Mar Vista development on the west side of Los Angeles. Built in 1947 and 1948, the tract consists of 52 houses on 2½ blocks, with the three streets running in a southeast-to-northwest direction.⁶ The three-bedroom houses are all similar in plan, with post-and-beam construction and flat roofs. However, the houses appear to have greater variety as a result of reversing the plans, altering the garage locations, and varying the orientation of the houses on their lots.⁷ In addition, many of the houses with front doors facing southwest have canopies shading their entries, while those with front doors facing northeast do not. This modification of the house

design to account for different sun orientations is a rare and possibly unique feature in tract housing. The City of Los Angeles designated the Mar Vista tract a historic district (technically, an Historic Preservation Overlay Zone) in 2003; the city's first such designation of a postwar residential neighborhood.

Anshen and Allen

Robert Anshen (1910-1964) and Steve Allen both studied architecture at the University of Pennsylvania. They formed a partnership in San Francisco in 1940, although the war interrupted the launching of their practice.⁸ Anshen and Allen's work on tract houses began in 1949, when the builder Joseph Eichler commissioned the firm to design a house for the second phase of his Sunnyvale Manor tract. The three-bedroom house had 1,044 square feet



Gavello Glen tract, Sunnyvale, Santa Clara County. Anshen and Allen, architects. Built ca. 1952 by Gavello and Perego.



Sunshine Glen tract, Palo Alto, Santa Clara County. Anshen and Allen, architects. Built ca. 1954 by MacKay Homes.

of living area with a post-and-beam structure and a flat roof.⁹ The success of this design led to a long association of the firm with Eichler. Among the numerous designs that Anshen and Allen prepared for Eichler was the atrium plan, first introduced in 1957. The design proved to be so popular that the majority of Eichler's houses built after 1957 included atriums.¹⁰

In addition to their work for Joseph Eichler, Anshen and Allen designed houses for other merchant builders in the Bay Area. All of their tract house designs were Contemporary in style and used post-and-beam construction rather than stud framing. Anshen and Allen charged builders a flat fee for each house design, plus a royalty on each house built. Tracts of houses designed by the firm are most prevalent in the Silicon Valley communities from Palo Alto to San Jose. Among these are tracts by builders

such as Gavello & Perego and MacKay Homes, who primarily constructed houses of traditional design while only occasionally building post-and-beam houses in the Contemporary style.¹¹

Anshen and Allen developed a broad architectural practice in the 1950s. The firm's work included designs for numerous Standard Oil service stations in California as well as a wide variety of commercial, government, and religious buildings in several Western states.¹²

Edward Fickett

Edward Hale Fickett (1916-1999) was the son of a builder who received a degree in architecture from the University of Southern California in 1937. During the war, Fickett served as an officer in the Navy Construction Battalions (SeaBees), where he oversaw the construction of military bases in the South Pacific.¹³

Meadowlark Park tract, San Fernando Valley, Los Angeles. Edward Fickett, architect. Built ca. 1953 by Ray Hommes.



House in the San Fernando Valley of Los Angeles. Edward Fickett, architect.



In his early postwar architectural practice, Fickett was best known as the designer of thousands of tract houses for numerous Los Angeles area merchant builders. His earliest designs were Postwar Minimal houses of conventional appearance, but by the early 1950s Fickett was designing Contemporary style houses of post-and-beam construction.¹⁴ The builder Ray Hommes was probably Fickett's biggest client, building more than four thousand of the architect's houses in the San Fernando Valley and elsewhere in the Los Angeles area in the 1950s. Hommes began his Sherman Park tract in Reseda (in the San Fernando Valley) in 1953, building houses of Fickett's design. The builders' journal *House and Home* called this tract of 1,000 houses "the first large-scale tract of all-out contemporary design in the Los Angeles area."¹⁵ The success of

Sherman Park and other tracts of Fickett houses led many other builders to Fickett's small office in Beverly Hills, seeking designs that would sell quickly. The architect became one of the most prolific designers of tract housing in California. As a result, Fickett played a major role in promoting and popularizing the Contemporary style in the Los Angeles region.

Like Anshen and Allen, Fickett charged merchant builders a flat fee plus a royalty on each house built. The royalty varied by the size of the tract, with larger tracts having a lower charge per house. In exchange, the builder of a tract received up to six floor plans, with each having several possible design variations and paint colors. Fickett coordinated the design variations and colors of each house within the tract, to ensure varied but harmonious streetscapes and to avoid placing identical



Mutual Housing Association development, Los Angeles. Designed by A. Quincy Jones in collaboration with Whitney Smith, ca. 1947.



Atrium house in the Fairhills tract, East Orange, Orange County. Jones and Emmons, architects. Built in 1964 by Joseph Eichler.

houses near each other. His firm also planned the landscaping for the entire tract.¹⁶

In the later 1950s and 1960s, Fickett's office grew to become a large and diverse practice, with less emphasis on tract housing. The firm's later work included custom houses, commercial and industrial developments, and government buildings.¹⁷

Jones and Emmons

Archibald Quincy Jones (1913-1979) was born in Kansas City, Missouri, but spent most of his childhood in the Los Angeles area. He received a degree in architecture from the University of Washington in 1936. In his professional life, he was always known as A. Quincy Jones or Quincy Jones. Frederick Emmons (1907-1999) was born and raised in western New York State and studied architecture at Cornell University,

graduating in 1929. He moved to California a few years later and briefly worked for William Wurster in the late 1930s.¹⁸ (Frederick's brother, Donn Emmons, later became a partner in the Bay Area firm of Wurster, Bernardi and Emmons.) Jones and Emmons formed their partnership in Los Angeles in 1950.

Jones took an active interest in the design of economical modern houses in the early postwar period. In the late 1940s, he collaborated with architect Whitney Smith and engineer Edgardo Contini in the planning and development of the Mutual Housing Association property in the hills north of Santa Monica. Eight different floor plans were used to build 160 houses in the development, now known as Crestwood Hills.¹⁹

In December of 1950, *Architectural Forum* published its "builder's house of the year,"

Custom Ranch house in Menlo Park, San Mateo County. Designed by Cliff May and built in 1962.



designed by Jones for the San Diego builder H.C. Hvistendahl. The low-cost house was 1,000 square feet (25' x 40') with a detached garage.²⁰ The publication of this house caught the eye of Joseph Eichler, whose Fairmeadow tract in Palo Alto was designated “subdivision of the year” in the same issue of *Architectural Forum*.²¹ Shortly thereafter, Jones and Emmons began to design houses for Eichler, and continued to do so throughout the 1950s and 1960s. Emmons retired in 1970, but Jones continued to work for Eichler into the 1970s.

Eichler built about 5,000 houses from plans provided by Jones and Emmons, with Jones acting as the principal designer.²² Although Anshen and Allen developed the original Eichler atrium plan, Jones refined the design, adding the central carport topped by a high-pitch gable.²³ Eichler introduced this design in his Lucas Valley tract in Marin County, begun in 1963, and it quickly became one of his most popular models.²⁴ Jones and Emmons also designed tract housing for other merchant builders, primarily in Southern California but also in the Sacramento area and as far north as Portland, Oregon.²⁵ In addition to tract housing, the firm had a varied practice, with commissions for custom houses, commercial buildings, and high-rise apartments, including

Eichler’s 15-story Laguna Apartments in San Francisco, built in 1964.²⁶

Cliff May

Cliff May (1908-1989) played an important role in developing and popularizing the Ranch house, as described in Chapter 9. May designed numerous custom houses for individual clients, with his style evolving over several decades from his Spanish houses of the 1930s to simpler rustic or Western Ranch and Contemporary styles in the postwar period. Some of May’s later designs are an unusual combination of Contemporary styling with rustic materials and details.

In collaboration with the architect Chris Choate, May also produced tract house plans for merchant builders. The best known of these are the modular or panel houses described in Chapter 8. These Contemporary style houses were built in numerous locations in California and in a few other states.²⁷ There are also some “bootleg” Cliff May houses, based on May’s plans but constructed without his knowledge or permission. May sometimes brought lawsuits against builders for this appropriation of his work.²⁸ Excluding the bootlegs, it is estimated that 18,000 tract Ranch houses were built using May’s plans.²⁹



Primewood tract, Sunnyvale, Santa Clara County. Claude Oakland, Architect. Built ca. 1970 by Joseph Eichler. The house is a variation on earlier Eichler atrium houses by Anshen and Allen and Jones and Emmons.

Claude Oakland

Claude Oakland (1919-1989) was born and raised in Louisiana and received a degree in architecture in 1941 from Tulane University in New Orleans. Like many other architects, he served in the Navy SeaBees during World War II.³⁰ After the war, Oakland moved to the San Francisco Bay Area.

Oakland worked in the office of Anshen and Allen through the 1950s, contributing to the designs of the firm's houses for Joseph Eichler and other merchant builders.³¹ Establishing his own office in San Francisco in 1960, Oakland continued to work for Eichler, developing new variations on the atrium plans originally produced in the office of Anshen and Allen. He also designed some of the apartment buildings that Eichler began building in San Francisco in the late 1960s.³² Oakland's association with Eichler spanned almost the entire length of Eichler's building career, and Oakland was the primary designer of Eichler houses throughout the 1960s and early 1970s.³³

Palmer and Krisel

Dan Palmer (1920-2007) and William Krisel (born in 1924) were among the most prolific designers of houses for merchant builders in

the 1950s. They provided designs for tract houses that were built by the hundreds throughout Southern California and in several other states.³⁴ Dan Palmer was born in Budapest, Hungary. His family immigrated to the United States in the early 1920s, and Dan grew up in New York. He graduated from New York University with a degree in architecture in 1942.³⁵ William Krisel was born in China, to American parents. His family returned to the United States in the late 1930s, taking up residence in Beverly Hills. Krisel received a degree in architecture from the University of Southern California in the late 1940s.³⁶

Palmer and Krisel both worked in the Los Angeles office of Victor Gruen before forming their partnership around 1950.³⁷ (Gruen later gained prominence as the nation's leading designer of shopping malls.) Palmer and Krisel's first commissions for tract housing came from the builders George and Robert Alexander. The firm designed Contemporary post-and-beam houses for two of the Alexanders' tracts in the San Fernando Valley, beginning about 1952.³⁸ The success of these projects led to a long and fruitful association between the architects and the Alexanders, who built several thousand Palmer and Krisel

Corbin Palms tract, San Fernando Valley, Los Angeles. Palmer and Krisel, architects. Built in 1953 by the Alexander Construction Company.



Racquet Club Road Estates tract, Palm Springs, Riverside County. Palmer and Krisel, architects. Built ca. 1960 by the Alexander Construction Company.



houses in Los Angeles and in the Palm Springs area.

In addition to the Alexanders, Palmer and Krisel provided designs for numerous other builders of tract housing. This work made up a large share of the firm's practice for most of the 1950s.³⁹ In 1955 alone, the firm designed houses for about 40 different builders.⁴⁰ All of their houses were Contemporary in style and used post-and-beam construction. In Southern California, only the architect Edward Fickett did a comparable volume of tract house design.

The firm's tract housing work declined in the late 1950s, along with the popularity of the Contemporary style. Palmer and Krisel had always maintained a varied practice, designing stores, offices, hospitals and other types of buildings. The two architects dissolved their partnership amicably in the early 1960s.⁴¹ Both

men continued to design houses for merchant builders, at a diminished level, as part of their diverse individual practices.

Carter Sparks

Carter E. Sparks (1923-1996) was born in Utah and spent much of his childhood in Oregon. He enrolled in engineering at Oregon State University but cut short his studies to enlist in the Navy in 1944. After the war, Sparks moved to California and studied architecture at the University of California in Berkeley, graduating in 1950.⁴²

Sparks was employed in the office of Bay Area architects Anshen and Allen for a few years in the early 1950s. While there, he worked on the tract house designs that the firm prepared for Joseph Eichler and other builders. Moving to Sacramento in 1955, Sparks briefly



Davis, Yolo County. Carter Sparks, architect. Built by the Streng Brothers.



Duplex residence in Davis, Yolo County. Carter Sparks, architect. Built by the Streng Brothers.

partnered with the architect Donald Thaden, but spent most of his career running his own office.⁴³ He designed about 50 custom homes in the Sacramento area, becoming the city's premier architect for modern residences. In addition to residential work, Sparks designed some schools and commercial buildings as well as preparing plans for the remodeling of older commercial buildings.⁴⁴

Sparks is best known as the designer of the tract houses built by Streng Brothers Homes from about 1960 into the 1980s. Inspired by the Eichler houses he worked on while at Anshen and Allen, Sparks designed similar post-and-beam Contemporary style houses for the Strengs, including some duplex models. Streng houses designed by Sparks were constructed throughout the Sacramento area, with the largest concentration in the city of Davis.

Builders

This section provides information on nine of the most important merchant builders in California during the 30 years following World War II, as listed below:

- George and Robert Alexander
- David Bohannon
- Fritz Burns
- Ross Cortese
- Henry Doelger
- Joseph Eichler
- Earl "Flat-top" Smith
- Streng Brothers
- Lawrence Weinberg (Larwin Company)

These names constitute a sampling rather than an exhaustive list of important postwar builders, as the number of major merchant builders in the Los Angeles area alone is too

great to even catalog. The journal *House and Home* ranked the nation's 14 largest home builders for 1953, 1954, and 1955.⁴⁵ Of the 24 different builders listed in one or more of those years, 16 worked primarily or exclusively in California. Ten of the builders were based in Los Angeles, with three others working primarily in San Diego and three in the Bay Area. All of these builders constructed from 1,000 to more than 4,000 housing units in the years of their inclusion on the lists of the nation's largest builders.

Postwar builders can be divided into three groups, based on the scale of their operations. The largest group numerically includes the custom house builders who constructed only a small number of houses per year. Although this group includes the largest number of builders, they collectively accounted for only a small portion of the houses built in the postwar period. Some of these builders concentrated on the higher end of the market, building large and expensive houses, including unique, architect-designed modern residences. Others built smaller houses as infill projects in prewar subdivisions. Most of these builders worked in relative anonymity, and they are not discussed in this chapter.

Merchant builders make up a much smaller group but account for the great majority of the postwar houses built in California. Most of the merchant builders constructed subdivisions or tracts consisting of houses only. A smaller subset of this group, the community builders, constructed larger developments that included shopping centers, civic buildings, schools, and churches. Many builders moved among these three groups over the course of their careers, as their companies expanded, contracted, experimented, or faced financial difficulties.

From the end of World War II to the late 1960s, nearly all of the merchant builders in

California worked primarily in a single metropolitan area. In fact, many of these builders spent the greater part of their careers working in only one portion of a larger metropolitan area, such as the San Fernando Valley in Los Angeles or the Santa Clara Valley in the Bay Area. In Southern California, a few builders worked in both the Los Angeles and San Diego areas. Those who ventured well beyond their own metropolitan area, such as a Bay Area builder constructing tracts in Los Angeles, generally did so as experiments. These first efforts at geographical expansion brought a host of difficulties. Builders encountered differences in building codes and in the regulatory environment, were forced to work with unfamiliar subcontractors, and found it harder to maintain quality control and manage costs on projects far from their home office.⁴⁶ Builders who had centralized sub-assembly and warehousing faced higher costs to ship materials and components greater distances. While several builders constructed one or more housing tracts beyond their own metropolitan area, and a few ventured into Nevada and Arizona, very few California-based merchant builders were able to sustain multi-state or even statewide operations during this period.

This situation changed in the late 1960s and early 1970s, as large corporations began to acquire home building companies. The firm of Levitt and Sons, for example, was acquired by International Telephone and Telegraph (ITT) in 1967.⁴⁷ The Los Angeles company Larwin Construction merged with the CNA financial Corporation of Chicago in 1969.⁴⁸ These and other acquisitions and mergers brought profits to the parent corporations and sources of capital to the builders. Capital was a critical need for merchant builders at this time. Traditional financing from banks or savings and loan institutions became much more costly



Corbin Palms tract, San Fernando Valley, Los Angeles. Built in 1953 by the Alexander Construction Company.



Racquet Club Road Estates tract, Palm Springs, Riverside County. Built ca. 1960 by the Alexander Construction Company.

as interest rates rose in the late 1960s and remained high through the early 1970s.

Infused with capital and allied with national or even multinational corporations, many of the largest merchant builders established operations well beyond a single metropolitan area or region. Levitt and Sons, for example, expanded from coast to coast in the early 1970s with the construction of some housing tracts in California.⁴⁹ This period saw the initial growth of the nationwide home building companies that have since come to play a major role in the housing market.

George and Robert Alexander

The Alexander Construction Company was founded by George Alexander (ca. 1898-1965). George began his career as an accountant, but moved into housing construction when he saw

how much profit his builder clients were making.⁵⁰ Up to the early 1950s, he built conventional houses in the San Fernando Valley and elsewhere in the Los Angeles area. George's son, Robert (ca. 1925-1965), entered the family business as a young adult.

As recalled by the architect William Krisel, Robert Alexander was enthusiastic about modern architecture and tried to convince his father to hire the firm of Palmer and Krisel to design the company's tract houses. George Alexander offered his son a small tract in the San Fernando Valley as an experiment. The Palmer and Krisel houses sold before the tract was completed, and the Alexanders then commissioned the architects to design the houses for a larger tract in the Valley to be called Corbin Palms. The success of the Corbin Palms tract, begun in 1953, convinced the elder

San Lorenzo Village, Alameda County. Built ca. 1945 by David Bohannon.



Alexander that Contemporary style houses designed by architects could be more profitable than conventional tract houses.⁵¹ From that time on, the Alexanders built mostly Contemporary houses of post-and-beam construction, designed by Palmer and Krisel and a few other architects.

The Alexanders relocated to Palm Springs in 1955 and began to build tracts in that growing resort community and other desert communities in the Coachella Valley.⁵² Most of the company's houses in the Palm Springs area were designed by William Krisel of Palmer and Krisel, with some by architect Donald Wexler.⁵³ Since many of these houses were purchased as vacation homes, the Alexanders and their architects opted for a more exuberant style of design than in their Los Angeles area tracts. Many of the Palm Springs houses feature butterfly roofs and screen walls of patterned concrete block. These features give the houses a more exotic appearance, particularly with their desert landscaping.

Throughout the late 1950s and early 1960s, the Alexanders built more than 2,000 houses in Palm Springs, constituting a large portion of the city's housing growth during this period.⁵⁴ The company came to an abrupt and tragic end when George and Robert Alexander and their wives died in a plane crash in November of

1965.⁵⁵ Palm Springs currently enjoys a reputation as one of the nation's leading cities for mid-century modern architecture, based in large part on the work of the Alexanders.

David Bohannon

David D. Bohannon (1898-1995) was born in San Francisco and began buying and selling real estate in the Bay Area as a young man in the 1920s.⁵⁶ As was typical of subdividers at the time, Bohannon bought large parcels of undeveloped land, platted and built streets, installed utilities, and sold the individual house lots. With the collapse of the real estate market following the stock market crash of 1929, Bohannon found that he could no longer sell the residential lots that he owned. Reasoning that completed houses would be easier to sell than vacant lots, he entered the construction business in 1932 and built houses for sale on his properties in San Mateo County. Throughout the remainder of the decade, Bohannon constructed houses intended for a relatively affluent segment of the market. His houses sold for \$15,000 and up, substantially more than the economical postwar houses that he would later become famous for.

Bohannon was one of California's first community builders, constructing not just subdivisions of houses, but entire new



Westwood Oaks tract, Santa Clara, Santa Clara County. Built ca. 1959 by David Bohannon.

communities with their own schools, parks, churches, and shopping centers. His first new community was Hillsdale in San Mateo County. Begun in 1939, Hillsdale featured a large shopping center, apartments, and single-family houses. Although construction was suspended in 1941 due to the war, Bohannon resumed building at Hillsdale in the late 1940s.⁵⁷

During the war Bohannon devised and improved many of the mass-production techniques that enabled him to construct houses on an industrial scale. His first major wartime project began in 1941, with the construction of houses for defense industry workers in Sunnyvale in Santa Clara County. In nine months, Bohannon constructed 288 two-bedroom and three-bedroom houses, which sold for \$4,000 to \$4,500. The Sunnyvale project was followed by the construction of more than 500 houses for shipyard workers in the city of Napa. Having refined his methods of rapid production with these two projects, Bohannon began constructing houses in Richmond for workers at the Kaiser shipyards. He completed 700 houses in Richmond in the remarkable period of four months, between early May and early September of 1943.⁵⁸

In 1944, Bohannon began the new community for which he is best known, San Lorenzo Village south of Oakland in Alameda

County. The first phase of the project, built during the war, included more than 1,300 houses with identical floor plans. Construction continued after the war and into the early 1950s, eventually reaching a total of about 3,000 houses. The later phases of construction included several different house plans, all Postwar Minimal or small Ranch types. (Other builders followed Bohannon and continued to expand San Lorenzo Village until the available undeveloped land ran out in 1958.) In addition to houses, Bohannon built one large shopping center and two smaller neighborhood shopping centers at San Lorenzo Village as well as a community center and fire station. He also provided land for the construction of several schools and churches.

Bohannon followed San Lorenzo Village with a series of smaller tracts, primarily in the South Bay, from the late 1940s through the 1950s. These include Westwood Village in Santa Clara and the Mayfair Heights and Westwood Oaks tracts in San Jose. Although Bohannon continued to build a large number of houses each year, his later projects were generally limited to subdivisions rather than new communities. There were fewer opportunities for community building in the Bay Area after the immediate postwar years, particularly in the South Bay, where sufficiently large parcels

*Orchard Park tract, San Jose.
Built ca. 1947 by Kaiser
Community Homes.*



of undeveloped land were not common. It is estimated that Bohannon built more than 25,000 houses over the course of his career, making him one of the largest California merchant builders of his time.⁵⁹

Fritz Burns

A Los Angeles counterpart to the Bay Area's David Bohannon, Fritz Bernard Burns (1899-1979) was one of the state's earliest community builders and one of the first builders in the nation to adopt mass-production methods in the construction of housing tracts. Burns was born and raised in Minnesota. In the early 1920s, the Minneapolis real estate firm of Dickinson and Gillespie sent Burns to Los Angeles to establish an office there. Burns acted as a typical subdivider of the period, buying large parcels, installing streets, and selling plots ranging in size from individual house lots to small farms. In the booming Los Angeles real estate market of the 1920s, Burns and his sales staff were able to sell property as fast as they could buy and subdivide it. In a few years, Burns was able to buy out his partners and take sole control of his Los Angeles business, becoming a millionaire by the late 1920s.⁶⁰

Burns suffered a swift reversal of fortunes following the stock market crash of 1929. Many of his customers had been speculators who

soon defaulted on their mortgages. Burns, in turn, was forced to default on the bank loans taken out to finance improvements to his properties.⁶¹ Good fortune returned to Burns in 1934 when the discovery of oil on one of his properties brought enough income to pay off his creditors and invest in tax-delinquent properties that could be acquired cheaply.⁶²

Burns joined Fred Marlow to form Marlow-Burns and Company in 1937. Like Burns, Marlow was a real estate investor who made millions in the 1920s, only to lose it all in the Depression. The creation of the Federal Housing Administration in 1934 provided an opportunity for Marlow, who became the agency's District Director for Southern California and Arizona.⁶³ By the time that Marlow and Burns formed their partnership, Marlow knew more than anyone in the region about how to profit from the new guidelines for housing construction established by the FHA.

Marlow-Burns began development of the Windsor Hills subdivision in southwest Los Angeles in 1938.⁶⁴ While the company sold individual lots in Windsor Hills, it also built many of the houses, marking the beginning steps in the transition from subdividing to merchant building. The following year, Marlow-Burns began construction at Westside Village near Santa Monica. It was here that the



Panorama City development, San Fernando Valley, Los Angeles. Built ca. 1948 by Kaiser Community Homes.

builders made their first use of mass-production techniques such as precutting and bundling of lumber, prefabrication of wall panels, and the close sequencing of specialized work crews. The completed tract included 788 small houses.⁶⁵ Marlow-Burns followed Westside Village with the Toluca Wood subdivision of 400 houses near Burbank in the San Fernando Valley.⁶⁶ Westside Village and Toluca Wood were Southern California's first mass-produced housing tracts. Marlow-Burns marketed their low-cost houses to buyers "who might not yet be considered middle class, but would be soon."⁶⁷

During the war, Marlow-Burns and three other builders developed the Westchester district just north of the city's main airport. This development provided housing for workers in defense industries, primarily the cluster of aircraft manufacturing plants in the area. Marlow-Burns built the southeast quadrant of the new community, south of Manchester Avenue and east of Sepulveda Boulevard. They constructed their first 669 houses in just 15 months, and eventually built more than 1,000 houses at Westchester.⁶⁸ (About two-thirds of the Marlow-Burns portion of Westchester has since been razed for expansion of the airport and related facilities.) The new community included a commercial center at the intersection

of the two major streets, and each of the builders reserved land in their portion of the development for schools. This project introduced Marlow and Burns to community building in addition to housing construction.⁶⁹

Burns teamed with Henry J. Kaiser after the war to form Kaiser Community Homes, of which Burns was President.⁷⁰ Kaiser was at that time the nation's best known industrialist, widely praised for the remarkable productivity of his shipyards and their contribution to the war effort. With their combined experience in industrial production and housing, Kaiser and Burns intended to address the postwar housing shortage in the same way that Kaiser addressed the critical need for ships during the war.

Kaiser Community Homes built about 8,000 houses from the end of the war through 1952. Most of these were in the Los Angeles area, although the company also built the Orchard Park tract in San Jose as well as houses in Beaverton, Oregon.⁷¹ Kaiser Community Homes initially used some prefabrication methods, as described in Chapter 8, but this effort lasted only a few years.

The company's largest development was Panorama City in the San Fernando Valley. Between 1947 and 1952, Kaiser Community Homes converted a former dairy farm north of Van Nuys into the Valley's first large postwar

Rancho Estates tract, Long Beach, Los Angeles County. Built ca. 1953 by Ross Cortese.



community.⁷² When completed, Panorama City included more than 3,000 houses as well as apartment buildings, schools, and shopping centers. Panorama City was the last major project undertaken by the partnership of Burns and Kaiser.⁷³ By the time of its completion, the postwar housing crisis had largely subsided, and Burns moved on to a variety of commercial development projects, including high-rise hotels in California and Hawaii.⁷⁴

Ross Cortese

Ross W. Cortese (1917-1991) was born in Ohio. He moved to California with his family as a child and grew up in the cities of Long Beach and Glendale in Los Angeles County. Cortese began his career in real estate as a young man, buying and renovating deteriorated properties. Using the profits from these renovation projects, he began buying land and building new houses for sale.⁷⁵

In the postwar period, Cortese became a merchant builder and community builder, working primarily in southern Los Angeles and northern Orange counties. Notable housing tracts by Cortese include the Rancho Estates subdivision in Long Beach and the Frematic Homes tract in Anaheim, both begun in the early 1950s. The Rancho Estates tract includes

more than 700 houses designed by Cliff May and Chris Choate for modular or panel construction, as described in Chapter 8. This was the project that launched Cortese into the ranks of the major merchant builders in Southern California.⁷⁶ In 1956, Cortese began construction at Rossmoor, a new community adjacent to Long Beach in northwestern Orange County. When completed in the early 1960s, Rossmoor included more than 3,400 single-family houses as well as apartment buildings, two shopping centers, and five schools.

As described in Chapter 7, Cortese was one of the first merchant builders to construct new communities exclusively for retirees, beginning in the early 1960s. Following his three Leisure World developments in California, Cortese went on to build similar communities in the sunbelt states of Arizona and Florida as well as in Illinois, Maryland, and New Jersey.⁷⁷ By the mid-1960s, with several Leisure Worlds under construction, Cortese was recognized as one of the nation's leading builders of this new type of community.

Henry Doelger

Henry Doelger (1896-1978) was born in San Francisco and began his career in real estate in the early 1920s, buying and selling building



Typical prewar houses built by Henry Doelger in the Sunset district of San Francisco.



Westlake development, Daly City, San Mateo County. Built ca. 1950 by Henry Doelger.

lots.⁷⁸ By the end of the decade, he had formed his own construction company and was building houses for sale on his properties.⁷⁹ Doelger's business grew steadily in the 1930s and he was one of the few merchant builders to have a large operation prior to World War II. He bought undeveloped property in the Sunset and Richmond districts on the west side of San Francisco and filled block after block with his distinctive two-story row houses. The houses have garages at the ground level and living space above, with facades having prominent bay windows ornamented with Spanish and other Period Revival details. Doelger eventually built more than 10,000 houses in the city.⁸⁰

Like many other builders of the period, Doelger spent the war years constructing housing for soldiers and workers in defense industries. He built several thousand units of housing at military facilities throughout the Bay Area.⁸¹ Although he had built houses at a brisk rate in the 1930s, wartime needs undoubtedly led Doelger to refine his construction methods, setting the stage for even greater production in the postwar period.

With a scarcity of undeveloped land in San Francisco after the war, Doelger moved his operation south of the city limits, purchasing 1,350 acres from the Spring Valley Water Company.⁸² Extending along more than three

Sunnyvale, Santa Clara County. Built ca. 1948 by Joseph Eichler.



miles of the Pacific coastline, this land would become the new community of Westlake, where Doelger spent most of his postwar building career. Westlake is the largest of the new postwar communities in the Bay Area and one of the largest in the state. The community was built in 12 phases, working from north to south, keeping Doelger's construction crews busy from 1947 to the early 1960s.⁸³ When complete, Westlake included 6,500 houses, 3,000 apartment units, one major shopping center, two smaller neighborhood shopping centers, and several schools.⁸⁴ Using the full range of postwar mass-production techniques and employing a fleet of about 150 trucks, graders, and other construction vehicles, Doelger completed new houses at Westlake at a rate of seven per day during the busiest years of his operation. This was more than three times the rate of construction for his San Francisco houses of the 1930s.⁸⁵

The houses at Westlake are unusual for the period in that they are mostly two stories on relatively narrow lots. With their ground-floor garages and upper-level living areas, they are updated and detached versions of Doelger's earlier row houses in San Francisco. Although the houses are quite uniform in their overall forms, they exhibit an eclectic mix of façade stylings, from Colonial Revival and French

Provincial to some strikingly modern designs. While the forms and proportions of the houses appear more urban than suburban, the curvilinear street pattern and long blocks clearly mark Westlake as a postwar community.

Joseph Eichler

Joseph Eichler (1900-1974) was already in his late forties when he entered the construction business. Unlike many of the largest postwar merchant builders, Eichler did not have wartime experience in the rapid construction of housing. By the mid-1950s, however, Eichler was considered to be the nation's leading builder of Contemporary style houses.⁸⁶

Eichler founded the Sunnyvale Building Company in 1947 and built a few tracts of Postwar Minimal houses in that South Bay City.⁸⁷ His first houses were of stud framing but Contemporary in appearance. A few years later, he formed Eichler Homes and began building tracts of houses in South Bay and Peninsula cities from Sunnyvale to Palo Alto and Menlo Park.

Eichler hired the architectural firm of Anshen and Allen to design the houses for the second phase of his Sunnyvale Manor tract. The houses all had flat roofs and used post-and-beam rather than stud construction. The 51-house tract sold out in two weeks in 1950,



Terra Linda tract, Marin County. Built ca. 1958 by Joseph Eichler.

convincing Eichler to commission architects for all of his future projects and to use post-and-beam construction exclusively.⁸⁸

In addition to Anshen and Allen, Eichler commissioned the firm of Jones and Emmons to plan new tracts and design the houses. Robert Anshen and A. Quincy Jones often collaborated in the evaluation of built tracts and in making suggestions to improve each others' designs.⁸⁹ From 1960 on, the architect Claude Oakland took the place of Anshen and Allen in designing Eichler houses.

Eichler's houses were distinctly modern, usually having the post-and-beam structural system prominently expressed on both the interior and exterior. The houses included radiant heating embedded in the concrete slab floors, an idea that Eichler and his architects borrowed from Frank Lloyd Wright's Usonian houses. While many of the designs are quite closed at the front, the rear walls typically have extensive glazing filling the entire area between the structural posts. Eichler began building his popular atrium-plan houses in the late 1950s.⁹⁰ The design was an attempt to provide private outdoor space on small lots and to bring more daylight into the interior of the house.

The earliest Contemporary style houses in California were built primarily as low-cost products intended to address the postwar

housing shortage. Eichler found a successful niche in the market by transforming the style into an upscale product for sophisticated buyers. Eichler houses were more expensive than those of other merchant builders in the Bay Area, incorporating richer materials such as cork flooring and interior wall panels clad in Philippine mahogany. Eichler also hired prominent landscape architects such as Thomas Church to plan the landscaping for some of his tracts, with the extensive planting adding to the cost of the houses. A substantial portion of the market for Eichler Homes was a stratum of intellectuals, engineers and scientists teaching at Stanford University and working in the nearby aerospace and electronics industries in what later came to be called Silicon Valley.

As noted in Chapter 5, Eichler Homes sold houses without regard to the race or religion of the buyer. Edward Eichler (Joseph's son) estimated that the company sold three to four percent of its houses each year to African Americans.⁹¹ This policy set the company apart from most other merchant builders in the 1950s and early 1960s.

Eichler was not a community builder, but constructed tracts of houses only. A few of his tracts included small parks and community centers, but few were large enough to support their own schools or shopping centers.

Thousand Oaks, Ventura County. Built ca. 1964 by Joseph Eichler.



Eichler is estimated to have built more than 11,000 houses in his career, with more than 900 houses constructed in the peak year of 1955.⁹² About two-thirds of these were in Santa Clara and southern San Mateo counties, with 2,700 in Palo Alto alone.⁹³ With most of his tracts concentrated in a small portion of the Bay Area, Eichler established a storage yard in the city of Mountain View, where materials could be cut to size and shipped as needed to construction sites.⁹⁴ Most of Eichler's tracts were located within a ten-mile radius of his storage yard.

Beginning in the mid-1950s, Eichler built more than 1,700 houses in several Marin County tracts and more than 700 in various East Bay communities.⁹⁵ He also built a small tract in Sacramento at that time.⁹⁶ Eichler ventured to Southern California in the late 1950s and early 1960s, building a small number of tracts in Los Angeles, Orange and Ventura counties.⁹⁷

In the 1960s, Eichler Homes expanded into urban high-rise construction in San Francisco. Cost overruns and other difficulties with this type of development pushed the company into bankruptcy in 1967. By this time, the Contemporary style in single-family housing had largely run its course. Edward Eichler noted that the increasing expectation that new houses would come equipped with air

conditioning diminished the appeal of the Eichler house. The company's standard radiant floor heating could not be adapted to include air conditioning, and extensive areas of glass made it difficult to keep the house cool in the summer, particularly when the glazed rear walls faced south or west.⁹⁸ The trend toward larger, multi-level houses in the later 1960s also diminished the appeal of the Eichler house. Following the bankruptcy of Eichler Homes, Joseph Eichler continued to build housing tracts under different company names until his death in 1974, but on a much smaller scale than during the heyday of Eichler Homes.

Earl "Flat-top" Smith

Earl William Smith was born in Seattle in 1908 but spent most of his life in Berkeley.⁹⁹ Trained as a carpenter, he worked on construction sites with his father as early as his teenage years. Smith built and sold conventional houses in the East Bay on a small scale prior to World War II.

In 1947, Smith built his first flat-roof house in El Cerrito, just north of Berkeley.¹⁰⁰ The house, of Smith's own design, aroused considerable controversy. The city's building official was reluctant to issue a permit for such an unconventional design, neighbors petitioned against it, and real estate agents advised that it would not sell. When the house sold quickly,



El Sobrante, Contra Costa County. Built ca. 1953 by Earl "Flat-top" Smith.

Smith built more “flat tops” and expanded his operation to become one of the nation’s largest merchant builders in the 1950s. Smith’s company built 200 houses in 1949, more than 1,100 in 1950, and 2,700 in 1953.¹⁰¹ *House and Home* ranked Smith the nation’s seventh largest merchant builder of 1953 and the fourth largest of 1954.¹⁰²

Using his intimate knowledge of building construction, Smith planned his houses with an eye to keeping costs to a minimum, using post-and-beam construction, concrete slab floors and flat roofs. In 1954, he was able to sell two-bedroom houses for less than \$7,000, a figure that no other Bay Area builder could match. Smith was one of the few builders to continue to construct the Postwar Minimal house into the middle and late 1950s. He compared himself to Henry Ford, and his houses to Ford’s Model T, the first mass-produced, affordable car for the masses.¹⁰³

In addition to focusing on the low end of the housing market, Smith’s company looked for building sites in the smaller cities and small towns of Northern California, outside of the major metropolitan areas. This was a market largely neglected by other merchant builders. Rather than concentrating on large tracts, the company achieved its production volume by building numerous relatively small tracts

simultaneously. Averaging less than 100 houses each, Smith built tracts of his distinctive flat-roof houses from the Bay Area to the Sierra foothills and from Salinas to Eureka.¹⁰⁴

Streng Brothers

The brothers Bill and Jim Streng grew up in Pennsylvania and attended Dartmouth College in New Hampshire. They moved to California as young men in the 1950s and began working for their uncle, Phil Heraty, a small-scale merchant builder. When their uncle retired in 1957, the brothers took over the Sacramento portion of his business.¹⁰⁵ They incorporated as Streng Brothers Homes in 1959 and built both housing tracts and individual houses in the Sacramento area into the 1980s.¹⁰⁶

The Strengs admired the houses of Bay Area builder Joseph Eichler and engaged Sacramento architect Carter Sparks to design modern, post-and-beam houses for tract construction. The company built about 4,000 houses over a thirty-year period, approximately three-quarters of which were Contemporary style designs by Carter Sparks.¹⁰⁷ Several merchant builders in the Sacramento area constructed small tracts of Contemporary Postwar Minimal houses during the first ten years after World War II. However, the Strengs became the region’s largest builders of Contemporary style houses by a substantial

Fair Oaks, Sacramento County. Built by the Streng Brothers.



This house in suburban Sacramento is an example of the Streng Brothers' atrium plan, with a plastic dome skylight over the atrium. The exterior walls are raked stucco.



margin, with their later tracts of more spacious and distinctive homes.

Many of the Streng Brothers houses are quite similar in appearance to Eichler houses, but the designs were adapted to the much hotter climate of California's Central Valley. Instead of radiant floor heating, Streng houses have forced-air heating and air conditioning. The Strengs built an atrium design beginning in the early 1970s, but their atrium was not outdoor space as in the Eichler atrium plan. Instead, the Streng atrium was open to the interior of the house and covered by a roof with a large plastic dome skylight.¹⁰⁸ The Strengs also built a small number of two-story houses in the Contemporary style.

The Streng brothers built 100 to 200 houses per year, considerably fewer than the big merchant builders in the state's larger

metropolitan areas.¹⁰⁹ With this relatively low volume of construction, they were able to customize their houses for individual buyers, making minor adjustments to the plans.¹¹⁰ In contrast, builders who constructed hundreds or thousands of houses per year were of necessity selling a standardized product and could not modify their designs to accommodate the wishes of individual buyers.

As with Eichler's houses, the Contemporary designs built by the Strengs appealed to a small but distinct segment of the market, attracting a large number of academics, architects and other professionals, and probably fewer businessmen. The difference may have been more noticeable in Sacramento than in the more liberal Bay Area. One observer of local politics noted that 85 percent of the residents of one Streng tract were registered Democrats, while 70 percent of



Cerritos, Los Angeles County. Built ca. 1972 by the Larwin Company.



Mira Mesa area of northern San Diego. Built ca. 1972 by the Larwin Company.

those in an adjacent tract of conventional Ranch houses were registered Republicans.¹¹¹

Lawrence Weinberg (Larwin Company)

Lawrence J. Weinberg was born ca. 1926 in New York City. He served in the Army during World War II and later attended the University of California at Los Angeles. Weinberg graduated from UCLA in 1948 and founded the Larwin Company later that year. His building career began modestly, with his initial project including just four houses.¹¹²

By the mid-1950s, Weinberg was building large tracts in the San Fernando Valley, Orange

County, and elsewhere in the Los Angeles area. He also began working in Ventura County's Simi Valley in the mid-1950s, eventually building a substantial portion of that city's postwar housing stock. By 1964, the Larwin Company had built about 10,000 houses and was considered "the largest builder and developer of homes and shopping centers on the West Coast."¹¹³ In response to changing household demographics in the later 1960s and 1970s, the Larwin Company became a major developer of multi-unit housing, including townhouses, apartments and condominiums. By 1970, the company had built more than

25,000 housing units, primarily in the Los Angeles metropolitan area.¹¹⁴

As previously noted, the Larwin Company merged with the CNA financial Corporation of Chicago in 1969. The merger provided the company with the capital and resources to immediately expand into the San Diego and Bay Area housing markets. In the early 1970s, the company also had construction projects in the Chicago area and built two large tracts on Long Island in New York State.¹¹⁵ The history of Weinberg's Larwin Company illustrates the postwar evolution of the American house

building industry. The company began as a small operation, grew into a large but localized merchant builder, and later merged with a larger corporation and carried out building projects across the nation. Among Southern California merchant builders, the Larwin Company is one of the few that continued to play a prominent role in the region's housing market from the mid-1950s to the 1970s and beyond. It is also one of only a small number of merchant building companies that continued after the retirement or death of its founder.

11

Survey and Evaluation

This chapter provides guidance on the survey of postwar houses and housing tracts, and their evaluation under the National Register of Historic Places and California Register of Historical Resources criteria. (The California Register criteria are the same as the National Register criteria. For convenience, the remainder of this chapter refers only to the National Register criteria.) This chapter is intended to complement National Register Bulletin 15, *How to Apply the National Register Criteria for Evaluation*.¹ It is also intended to be used in conjunction with Volume 2 (Cultural Resources) of Caltrans' *Standard Environmental Reference*, particularly Chapter 7, which covers the evaluation and treatment of built-environment resources.²

This guidance is not intended to provide definitive answers with respect to whether a given property is eligible for National Register listing. In part, this is because our perceptions of historical significance will inevitably change over time. Additional research and new perspectives on postwar housing will add to this context document and enrich our understanding of the period and its buildings. Any attempt to provide a mechanism for definitively determining National Register eligibility will therefore eventually come to be seen as outdated and inadequate. In addition, determinations of eligibility tend to be guided by previous determinations for a given property type. For postwar housing, this body of precedent is currently too small to be very informative. As the number of evaluations grows, more comparative information will be available, potentially making future evaluations easier and more consistent.

Survey Methods

A key characteristic of postwar houses by merchant builders is that they were built in multiples. Unlike prewar tracts by subdividers, all of the houses within a postwar housing tract will usually be the work of a single builder and constructed in a short period of time using mass-production methods. Even in "custom home" tracts, which may include the work of more than one builder, all of the houses are likely to have been built within a short time period and will be similar in their size, quality, and degree of architectural elaboration. The fundamental unit for postwar housing is not the individual house, but the tract, or a single construction phase within a larger tract or new community.

Where a tract or a portion of a tract is included in an area to be surveyed, in most cases it will be more reasonable and efficient to treat the tract as a single property. Rather than preparing individual evaluations for each of the houses, the tract would be evaluated for National Register eligibility as an historic district. When documenting a tract on California Parks and Recreation (DPR-523) forms, the Primary Record (DPR-523A), District Record (DPR-523F), and Location Map (DPR-523J) will ordinarily be used, along with Continuation Sheets (DPR-523L) as necessary. The documentation will not necessarily need to include a photograph of every house in the tract. Instead, photographs of representative examples of the houses should be sufficient. The number of photographs to be included will depend on the size of the tract and the number of different house designs present. More documentation will normally be prepared

when an evaluation concludes that a tract is eligible for National Register listing.

In many cases, an undertaking will have the potential to affect only a small number of houses within a larger tract, as when a highway widening will affect a single row of houses within a large tract. When an evaluation concludes that an eligible district is present, those properties adjacent to the highway that may be affected by the undertaking should be documented, including a determination of their status as contributors or non-contributors to the district. This will aid in assessing the effect of the undertaking on the eligible district. Documentation of these individual properties could be included in the overall district evaluation, rather than on separate DPR-523 forms.

Under current practice, historic resource survey reports often include a general statement that no historic districts were identified within the area surveyed. This is sufficient where the survey area includes a diverse collection of building types and construction dates. However, such general statements may not be sufficient when a postwar housing tract is present. Postwar housing tracts by their nature exhibit a high degree of visual and temporal cohesiveness and have some potential to meet one or more of the National Register criteria. Therefore, such tracts should normally be evaluated as possible districts. An exception would be a tract that clearly lacks integrity, just as an individual building may be substantially altered and lack sufficient integrity to be eligible for National Register listing.

When evaluating tracts as possible historic districts, it will still be necessary to note whether any of the houses individually meet the National Register criteria. A summary statement will often suffice, noting that

historical research does not indicate that any of the individual houses have the potential to meet National Register criteria A or B, and that none of the houses individually meet criterion C. Where historical research indicates that an individual residence has some potential to meet one or more of the National Register criteria, that property should of course be evaluated as an individual property.

Documentation of postwar housing developments should classify and describe the type of property, whether a small tract that includes only houses, a larger development or a portion of such a development, or an entire community. A large tract or new community may include schools, churches, apartment buildings, shopping centers, and other building types in addition to houses. While all of these buildings may not have been constructed by the developer who built the houses, they are likely to have been included in the original planning for the development and date to the same period as the houses. Depending on the type of property, the potential for historic districts may need to be considered at several scales, from a small portion of a tract to an entire community.

As the architectural historian Richard Longstreth has noted, the postwar suburb "is a landscape, broadly defined, that includes, but is much more than, collection of buildings."³ The recordation of postwar housing developments should include identification and description of the design and landscape features that are distinctive characteristics of the property. Design characteristics include the street layout (curvilinear patterns, cul-de-sacs, long blocks, etc.), whether rolled or square curbing is used, sidewalks and planting strips, lot sizes, building setbacks, and whether utility lines are overhead or underground.

Landscape features include street trees and other planting, pre-existing mature trees or

wooded areas left intact, and public open space. In many cases it will be possible to distinguish planting that was included in the original plan from later planting undertaken by individual home owners. For example, uniformly spaced, mature street trees in the planting strip between the curb and sidewalk are likely to have been planted by the builder as part of the original landscaping plan for the development.

Evaluation of Individual Properties

An individual residence could meet National Register criterion A (association with significant events in American history) for association with the Cold War construction of fallout shelters or with efforts by minorities to secure civil rights and racial integration, as described in Chapters 5 and 6. An individual postwar residence could also meet criterion A for association with other important events in local, state, or national history, just as with residences from earlier periods. A single residence would generally not meet criterion A for association with the postwar housing boom or suburban growth. While a subdivision or tract might be significant in that context, an individual residence would not be adequate to convey that association.

As with older houses, a postwar residence could meet National Register criterion B for association with an important individual in local, state, or national history. Birthplaces and childhood homes of important individuals generally do not meet criterion B. Instead, a property should be clearly associated with the person's productive life and accomplishments.

To meet National Register criterion C, an individual residence must possess the distinctive characteristics of a type, style, period, or method of construction, or be the work of a master designer or craftsman, or exhibit high artistic value. Only in rare cases

will a tract house by a merchant builder meet criterion C as an individual property.

National Register Bulletin 15 notes that "a structure is eligible as a specimen of its type or period *if it is an important example (within its context) of building practices of a particular time in history.*"⁴ [emphasis added] Postwar tract houses by merchant builders generally will possess the distinctive characteristics of their type, style, and period. However, since these houses were built in multiples, it will not be possible to identify a single residence within a tract as being an important example relative to its neighbors. The tract as a whole, evaluated as a district, may be an important example of postwar housing within its context. When establishing significance at the local level, the context must be a city, town, or rural political division rather than merely a single tract, neighborhood, or district within a city.

The work of a recognized master architect or architectural firm can be eligible for National Register listing under criterion C. Several prominent California architects designed tract housing for merchant builders, as discussed in Chapter 10. Most of these architects also designed one-of-a-kind houses for property owners as individual commissions. These unique, high-style designs will need to be considered for National Register listing when they are present in historic property surveys. The tract house designs by these architects, on the other hand, were intended to be built in multiples. Variations within a tract are usually quite minor, and it will not be possible to single out one house as distinctive relative to others in the same tract. Tracts of houses designed by master architects should therefore be evaluated as districts rather than as individual properties. Similarly, an important merchant builder might be considered a master under this portion of criterion C. A housing tract may convey the

builder's significance, but an individual house would not.

While an individual residence of unique design may possess high artistic value, a tract house by a merchant builder will inevitably be similar to others within the same tract. A tract house will usually be similar to houses built in other tracts by the same builder, and may even closely resemble those by different builders. It is unlikely that any individual house within a tract will be distinguishable from its neighbors with respect to artistic value. An exception might be a tract house later transformed into an example of high-style design or distinctive craftsmanship through the work of a homeowner, architect, or artist. (Such a transformation would usually need to be at least 50 years old.) A tract in which many or most of the houses possess high artistic value should be evaluated as a district rather than as individual properties.

An individual house may be an important example within its context, and therefore meet criterion C, if it is distinctive relative to other houses of the same period. In many cases, these will be unique, architect-designed houses built for individual clients. For example, a house that exhibits the characteristics of International Style modern architecture could meet criterion C. Similarly, a Ranch house that shows complexity in plan (having a "rambling" design), strong integration of indoor and outdoor living areas, and the characteristic forms, materials, and craftsmanship of the mid-20th century Ranch could meet criterion C. Distinctive examples of Ranch houses may be deceptively rustic rather than high-style or modern in appearance, as with many of the houses of William Wurster and Cliff May.

Individual houses may meet criterion C as examples of prefabrication methods or other unusual construction techniques, or for

incorporating innovative or novel materials. Mere rarity in technique or materials, however, would not qualify a house for National Register listing. The technique or materials must have some significance. An example would be an experimental use of a construction technique or material that later saw widespread adoption by merchant builders. Experiments with methods of prefabrication may be significant in illustrating the preoccupation with cost-saving and mass-production methods among merchant builders in the early postwar years.

Although an individual house must possess a sufficient level of integrity to be eligible for National Register listing, integrity is a separate consideration from significance under the National Register criteria. A property with a notably higher level of integrity than other examples in the same geographical context would not be eligible for National Register listing for that reason alone, as a high level of integrity does not constitute significance under criterion C. Rather, an individual property must be an important example of its type, style, or period *and* possess integrity.

Evaluation of Districts

Because most of California's postwar housing stock was built using mass-production methods, the evaluation of housing tracts or portions of tracts as districts is likely to be more important and more common than the evaluation of individual houses. In addition to association with other events in local, state, or national history, a housing tract could meet National Register criterion A for association with the postwar housing boom and suburban growth. Nearly all postwar housing tracts could be said to have some association with this important theme. However, as noted in National Register Bulletin 15, "mere association with historic events or trends is not enough, in

and of itself, to qualify under criterion A: the property's specific association must be considered important as well."⁵ Examples of important association with the postwar housing boom might include an early or prototypical housing tract or new community, an unusually large example, or one that incorporates innovative design qualities or mass-production techniques.

It is unlikely that a district will meet National Register criterion B for association with an important individual. A housing tract that is significant as the work of an important architect, designer, builder, or craftsman should be evaluated as the "work of a master" under criterion C.

A tract may possess the distinctive characteristics of its type and period, and be an important example within its context, and therefore meet National Register criterion C. In such cases, evaluators should consider whether the tract possesses the distinctive characteristics of postwar subdivision design, such as a curvilinear street layout, long blocks, and careful planning for traffic, evidenced by a hierarchy of streets and a low proportion of four-way intersections. The individual houses should be representative examples of their types, styles, and period, but the architecture alone may not be sufficient to qualify a tract for the National Register under this portion of criterion C.

A tract of houses designed by one or more master architects may meet National Register criterion C. The architects discussed in Chapter 10 could all be considered masters in the design of postwar tract housing. There may also be other architects who could be considered masters and who played an important role in the design of tract housing in California. Simply noting that a tract is the work of a master architect is not sufficient to meet criterion C.

Rather, the tract must be a good, representative example of the architect's work, or illustrate an important phase or milestone in the architect's career. In sum, a tract meeting criterion C for association with a master architect should show why the architect is considered a master.

A housing tract may also meet criterion C as the work of a master builder. Merchant builders generally did not design their housing tracts or the individual houses. For these tasks, they hired architects, engineers, and other experts. Nonetheless, the overall vision for a housing tract or new community may be credited to the builder, who was responsible for organizing the project and managing all aspects of its design and construction.

In order to meet criterion C as the work of a master builder, a tract must be an important example of the builder's accomplishments, illustrating why the builder is considered significant. Not every tract developed by important builders such as Ross Cortese or Joseph Eichler, for example, would necessarily meet criterion C as the work of a master. The tract would need to illustrate an important aspect of the builder's work, mark an important stage in the builder's career, or possess some other important quality relative to the significance of the builder. Examples might include tracts that exhibit innovations in design, planning, or construction methods, and tracts that because of their scale or quality represent the beginning or culmination of a new phase in the builder's career.

A tract of houses that collectively possess high artistic value could be eligible for National Register listing under criterion C as an historic district. Such tracts are likely to consist of larger and more expensive homes than the typical housing tracts of merchant builders. A group of unique, high-style houses designed by one or more architects for individual clients might also

possess high artistic value. In order to meet this portion of criterion C, the houses would need to exhibit an unusual degree of quality in their design, detailing, and craftsmanship. Tracts of houses possessing high artistic value will tend to exhibit a great deal of variety in the number of different house designs, probably with no plan or model repeated. Extensive or unusual landscaping, either installed as part of the developer's original plan or later adopted by the community, may be an important characteristic of a tract with high artistic value.

A property may be eligible for National Register listing under criterion C if it represents "a significant and distinguishable entity whose components may lack individual distinction."⁶ This would be the case for a postwar housing tract that, considered in its totality, is a distinctive example of its type and conveys a sense of its time, even though the houses may not meet criterion C individually. A postwar housing tract evaluated as an historic district does not need to be the first, largest, or best example in the local context or possess other superlative qualities to meet this portion of criterion C. It must be "a significant and distinguishable entity" in its geographical context, but the existence of a more important example or an example with greater integrity does not preclude a finding of eligibility under criterion C. There is no maximum number of properties that may be eligible for National Register listing under this portion of criterion C within a single geographical context.

Although the Contemporary style tends to attract more interest and enthusiasm than other styles of postwar housing, an historic district meeting criterion C does not need to include houses that are architecturally distinctive. A tract of rather ordinary Postwar Minimal or Ranch houses could be eligible as an historic district if it is a distinctive example of a postwar

housing tract and retains sufficient integrity to convey a sense of its time.

Criteria Considerations

The seven types of properties listed below are not eligible for National Register listing unless they meet the special requirements described in Section VII of National Register Bulletin 15, "How to Apply the Criteria Considerations:"⁷

- A. Religious properties
- B. Moved properties
- C. Birthplaces or graves of important historical figures
- D. Cemeteries
- E. Reconstructed properties
- F. Properties that are primarily commemorative in nature
- G. Properties that have achieved significance within the past 50 years

The criteria considerations generally apply only to the evaluation of individual properties, not to contributing properties within historic districts. National Register Bulletin 15 notes that "components of eligible districts do not have to meet the special requirements unless they make up the majority of the district or are the focal point of the district."⁸ (To be eligible for National Register listing, a property must meet at least one of the four National Register criteria as well as the relevant criteria considerations.) The criteria considerations apply to postwar properties in the same manner as for older properties, although some property types will be encountered more frequently than others in areas developed after World War II.

Properties that have been moved from their original locations are not eligible for National Register listing unless they meet criteria consideration B. Military surplus Quonset huts are one type of moved property that may be

encountered in areas of postwar development. Quonset huts were used for a wide variety of purposes in the immediate postwar years, including civilian housing. Although they are now quite rare, such buildings are likely to convey a strong sense of the postwar era. Where a Quonset hut building retains sufficient integrity, it should be carefully considered for National Register eligibility, either individually or as a contributor to an historic district.

Mobile homes are another property type that may be encountered in historic property surveys. As these are inherently moveable, they meet criteria consideration B. A mobile home park may be eligible for National Register listing if both the park itself and enough of the individual homes are at least 50 years old and date to the property's period of significance. While an intact mobile home park consisting primarily of homes more than 50 years old is likely to be quite rare today, tracts of generally higher-quality modular housing (built after the 1974 federal standards for mobile home construction) will need to be evaluated as they reach 50 years in age.

Commemorative properties in postwar communities may include World War II and Korean War memorials, including the commemorative placement on public land of surplus and inoperable cannons or other military equipment. Like Quonset huts, these are likely to convey a strong sense of the postwar period and may be contributors to historic districts whether or not they meet criteria consideration F individually.

Properties that are only slightly less than 50 years old are likely to be encountered with some frequency in areas of postwar development. Criteria consideration G requires that properties less than 50 years old possess exceptional importance to be eligible for National Register listing. Guidance for

evaluating such properties is provided in National Register Bulletin 22, *Guidelines for Evaluating and Nominating Properties that have Achieved Significance within the Past Fifty Years*. Bulletin 22 notes that:

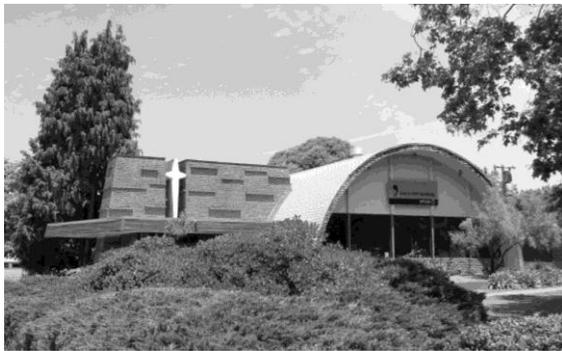
The 50 year period is an arbitrary span of time, designed as a filter to ensure that enough time has passed to evaluate a property in a historic context. However, it was not designed to be mechanically applied on a year by year basis. Generally, our understanding of history does not advance a year at a time, but rather in blocks of time which can logically be examined together.⁹

With respect to postwar housing and housing tracts, this block of time may logically extend from 1945 into the early 1970s, as described in this context document, or to some other ending date that is less than 50 years from the present. For properties that are approaching 50 years in age, sufficient context information may be available to allow for evaluation without the requirement of exceptional importance.

Postwar housing tracts evaluated as districts may include contributing properties that are less than 50 years old. For example, a tract built over several years that includes properties both greater than and less than 50 years old may meet the criteria for National Register listing. In such cases, the district as a whole would not need to possess exceptional importance if the period of significance for the district extends only a few years beyond the 50-year threshold and a majority of the individual properties are more than 50 years old.¹⁰ Similarly, those properties that are less than 50 years old could be contributors to the district without possessing exceptional importance, so long as they are an integral part of the district, representing a continuation or completion of the original plan for the tract.¹¹

San Lorenzo Community Church

The San Lorenzo Community Church was originally constructed as a chapel for Camp Parks, a Navy base established during World War II in the city of Dublin, about 12 miles east of San Lorenzo in Alameda County. The architect Bruce Goff designed the building using Quonset huts, while stationed at Camp Parks as a member of the Navy construction brigades known as the Seabees.¹² After the war and the decommissioning of Camp Parks, the building was moved and reconstructed at its present location. The church illustrates the widespread reuse of military surplus Quonset huts in the immediate postwar years, and is compatible with the Postwar Minimal houses and postwar era schools of the San Lorenzo Village tract. The church is an example of a religious property, a moved property, and a reconstructed property (National Register criteria considerations A, B, and E) that may be individually eligible for National Register listing, in addition to contributing to a possible San Lorenzo Village Historic District.



San Lorenzo Community Church

Assessing Integrity: Individual Houses

To be eligible for listing on the National Register of Historic Places, a property must possess integrity in addition to meeting at least one of the National Register criteria. A property does not need to be in its original, unaltered state to possess integrity, but must retain enough of its original design, materials, and

other qualities to convey its historic character and significance. Seven aspects of integrity are considered when evaluating properties for the National Register: location, setting, design, materials, workmanship, feeling, and association. Of these, integrity of design and materials will usually be the most important when evaluating individual postwar houses. Retention of original design characteristics and materials is critical to recognizing these properties as a product of their time. Integrity of workmanship will be less important for postwar tract housing, since the construction techniques adopted by merchant builders in this period tended to de-emphasize craftsmanship. Integrity of workmanship may be an important consideration in the evaluation of a custom-designed house as an individual property, such as a Ranch house with rustic features that clearly exhibits craft skills.

The great majority of postwar houses exhibit some alterations and have therefore suffered some loss of integrity. Some alterations, such as replacement of original garage doors, are quite common. The most commonly seen alterations are described below, progressing from the relatively minor to the most substantial. Minor features such as paint colors, metal or canvas awnings, screen doors, and roof-mounted basketball hoops are ephemeral alterations that do not diminish a property's integrity. Interior alterations are not discussed here, since building interiors are not normally documented when doing historic property surveys for Section 106 compliance.

Installation of new roofing materials is a nearly universal alteration on postwar houses. Asphalt composition shingles, which were by far the most common original roofing material, were not expected to last 50 years. Installation of new asphalt shingles (replacement "in-kind") does not constitute a loss of integrity. Some



The four-panel, roll-up door on this Storybook house is a later replacement, but does not significantly detract from the overall character of the house.

homeowners re-roofed with wood shakes or clay tiles when they could afford it. In most cases, a change of roofing material will not constitute a major loss of integrity. Spanish style houses of the late 1960s and early 1970s were not necessarily constructed with clay tile roofing as an original feature, and the presence of asphalt composition shingles on such houses usually does not represent a loss of original material or diminished integrity.

The garage doors originally installed on houses built from the mid-1940s through the early 1970s were typically solid, one-piece doors that tilt up with the aid of spring mechanisms. These mechanisms often wore out or broke, and the wood doors would warp or otherwise deteriorate. The wider and heavier doors of two-car garages were particularly susceptible to warping and damage over time. Consequently, earlier tracts of houses with one-car garages are likely to retain a higher proportion of their original garage doors than later tracts of houses with two-car garages. Only a small minority of postwar houses retain their original garage doors. Like asphalt composition roof shingles, this building component was simply not expected to last 50 years. Most replacement garage doors are four-panel, roll-up doors. These generally do not

constitute a significant loss of integrity, although they may appear less compatible on Contemporary style houses where the original garage door was clad in the same siding as the exterior walls. In addition, the more ornate styles of replacement garage doors are less compatible with postwar houses than simpler, plainer styles, and their greater incompatibility may constitute a greater loss of integrity of design and feeling.

The front door is another feature that is often replaced before the house is 50 years old. While any replacement front door results in some loss of original material, relatively simple replacement doors are often compatible with postwar houses and constitute only a minor loss of integrity. More elaborate replacement doors with oval windows, leaded glass, sidelights, and other decorative features are more jarringly incompatible.

The conversion of a garage into additional living space is a common alteration to postwar houses and does not necessarily constitute a critical loss of integrity. Many such conversions are relatively inconspicuous and do not alter the overall form of the house. The conversion of an open carport to an enclosed garage or additional living space results in a more substantial loss of integrity, as this more radical

Although the garage of this Storybook house has been converted to additional living space, the house retains its original form and characteristic details. The house retains enough integrity of design, materials, and feeling to be a contributor to an historic district.



This house has new stucco on the walls, with a matching finish on the window trim, sills, and trim around the garage door. In addition, the windows, front door, and garage door are replacements. The house would be a non-contributor to an historic district, as its integrity of materials has been severely compromised.



change seriously diminishes the building's integrity of design.

Exterior siding materials can be important to the character of postwar houses. For example, board-and-batten siding contributes to the rustic quality of many Ranch houses, while Contemporary style houses often feature a form of wood siding with vertical grooves that is less commonly seen on houses of other styles. The replacement or covering of these materials generally constitutes a substantial loss of integrity. Replacement siding materials that were rarely or never used as original materials on postwar houses, such as aluminum and vinyl, are likely to be clearly incompatible in appearance.

Where stucco is an original material on postwar houses, it is most commonly seen with a smooth finish. Some textured styles were also

used, particularly in the late 1960s and early 1970s. Modern stucco (installed as a recent alteration) is often applied with a textured finish, usually called a lace finish, that was not used in the postwar period and can be clearly distinguished as non-original material. In addition, modern stucco treatments often include a matching finish on building details that are normally seen as wood trim on unaltered postwar houses, such as cornice boards and window surrounds.

Replacement of original windows is one of the most common alterations to postwar houses. Replacement of the sash only, while retaining the original window size, proportion, casing, and trim, does not necessarily constitute a critical loss of integrity. For example, the replacement of double-hung wood sash with double-hung vinyl-clad sash of the same



The windows to the right of the front door retain their original double-hung 2/2 wood sash, while the window to the left of the front door is a replacement sliding sash. With only this single alteration, the house could be a contributor to an historic district.



The smaller replacement windows on the façade of this house, with no trim or sills, severely diminish the house's integrity of design, materials, and feeling. This house would be a non-contributor to an historic district.

dimension may result in only a minor change to a house's appearance. However, the replacement of double-hung or casement windows with modern metal or vinyl-clad sliding sash is a more dramatic alteration that results in a greater loss of integrity. Replacement sash with a false muntin pattern generally appear less compatible than single-pane sash, as they are more clearly modern and unlike historic window sash. Although sliding sash with aluminum frames are recognized as modern replacements on older houses, windows of this type may be original to houses built in the 1960s and 1970s.

More substantial changes to a house's fenestration include replacing original windows with new windows of different size, shape, or proportion, or the addition of entirely new windows in areas that were originally

solid wall. Also, removal of the original window casings, sills, and exterior trim will dramatically alter the appearance of a house. Modern replacement windows installed flush with the exterior wall, without the traditional casing and sill, tend to give the facades a flat, two-dimensional appearance that is out of character with the original design.

Roof forms are an important characteristic of houses, and any major change to this component of a house is likely to result in a critical loss of integrity. The addition of one or two dormers may not be so intrusive as to render a house ineligible for National Register listing or a non-contributor to an historic district. More substantial changes to the roof form or pitch can substantially diminish a building's integrity of design. For example, many homeowners have added pitched roofs

Although the original form of this house is still visible, the prominent roof addition drastically alters the original design. The house stands out from its neighbors in a tract of small Contemporary houses, and would be a non-contributor to an historic district.



to houses constructed by builder Earl “Flat-top” Smith, either to reduce heat gain, shed rainwater more effectively, or simply give the house a more conventional appearance. Since the flat roof is the most distinguishing feature of Smith’s houses, such alterations substantially diminish their integrity of design.

Additions often result in a substantial loss of integrity of design, materials, and feeling. A rear addition that is not visible (or at least not visually intrusive) from the street would generally not be considered a critical loss of integrity. However, an addition to the front of a house usually does constitute a significant loss of integrity. The addition of a second floor on a one-story house substantially diminishes the building’s integrity of design. Second floor additions are especially intrusive in tracts consisting entirely of single-story houses.

Major alterations to a postwar residence, such as extensively altering the fenestration or adding a second floor, are likely to render the property ineligible for National Register listing. A residence with several relatively minor alterations may also lack sufficient integrity for National Register listing. For example, a Ranch house may exhibit alterations such as the enclosure of an open breezeway, replacement

of both the garage door and front door, and replacement of one façade window. These alterations may cumulatively tip the scales toward a conclusion that the property lacks integrity, even though none of these alterations are individually decisive.

Some alterations to postwar houses may have been carried out relatively soon after the house’s original construction date. Many homeowners began remodeling and expanding their houses almost immediately after moving in. As James Keane observed about one of the San Fernando Valley’s earliest postwar tracts, “Panorama City’s homes remained perpetually under construction,” as homeowners expanded the small houses to accommodate their growing families.¹³

When assessing integrity, high-style buildings are normally considered to be in their ideal state at the time of their completion, when they best represent the original vision of the designer. Later alterations are therefore considered a loss of integrity. For postwar tract housing, subsequent alterations may also be significant, as homeowners attempted to convert their mass-produced houses into individualized homes. In particular, Postwar Minimal houses of the late 1940s and early



The pop-out window to the left of the front door is not original, but this house is otherwise unaltered and retains sufficient integrity to be a contributor to an historic district.



This house, in the same tract as the one shown above, has been extensively altered with a front addition, replacement of the original picture window, new façade windows on the addition, new siding, and a replacement garage door. It would be a non-contributor to an historic district.

1950s were built with the expectation that they would be altered and expanded by their owners. Such alterations might therefore be seen as a normal part of the life cycle of a house rather than simply as a demerit in the assessment of integrity.¹⁴

The addition of masonry to the façade of a house is an example of a homeowner alteration that may have significance in its own right. The addition of small areas of brick, stone, or imitation stone materials is a common alteration to early postwar houses. It is an alteration whose function is purely symbolic rather than utilitarian. Masonry conveys an impression of permanence and stability, which was important to first-time homeowners. By the mid-1950s, merchant builders began to include masonry on the facades of their houses as an

original feature, recognizing that buyers found this symbolic material desirable. In the evaluation of individual houses and historic districts, it may be appropriate to consider a period of significance beyond the construction dates of the houses, to encompass these early alterations carried out by the original homeowners.

Assessing Integrity: Historic Districts

Integrity of design, setting, and feeling are particularly relevant when evaluating a postwar housing tract or a portion of a tract as an historic district. In addition to considering alterations to the individual houses, a tract possesses integrity of design if it retains its original planning features and characteristics. These include the street layout, the pattern of

curb, sidewalk, and planting strip, and the type of curbing. A change in any of these features, as when the curbing changes from rolled to square, often indicates the involvement of a different builder and may mark an appropriate district boundary.

While the overall street layout within a tract does not normally change, streets in postwar tracts were sometimes bisected by the later construction of new highways or freeways, with through streets in the tract converted to cul-de-sacs. Where freeway construction or other development destroyed most of a tract, leaving only one or more remnant portions, the tract will probably not possess sufficient integrity of design for National Register listing. In most cases, freeway construction or other later development resulted in the alteration of only a small portion of a tract. Minor alterations such as the addition of curb and sidewalk ramps do not diminish a tract's integrity of design to any notable extent.

Aspects of setting to consider when evaluating a postwar housing tract include not only the design features noted above, but also landscaping, the presence or absence of fences, the location of schools and other property types, and other physical features of the tract. Features outside of a district's boundary that are visible from within the district may also diminish a district's integrity of setting, as when later high-rise buildings are constructed adjacent to a housing tract. Integrity of feeling is the ability of a property to evoke the historic period for which it is significant. A tract with a large proportion of heavily modified houses may be more representative of recent architectural trends than of the postwar period, and would therefore lack integrity of feeling.

The evaluation of historic districts typically involves determining whether each of the individual properties within the district

contributes to, or detracts from, the district as a whole. There is no established rule concerning the proportion of contributing versus non-contributing properties that a district must possess to be eligible for National Register listing. However, a good rule of thumb is that an eligible district should have at least twice as many contributors as non-contributors. A district in which less than two-thirds of the properties are contributors is unlikely to adequately convey a sense of its time or historic significance. Contributing properties must have been physically present during the district's period of significance and share the historic associations and architectural qualities that qualify the district for National Register listing. For individual properties within historic districts, the determination of contributor or non-contributor status will usually depend on the property's integrity.

The integrity threshold for contributor status within a district is generally lower than the threshold for an individual property. Therefore, a residence may contribute to a district even if it does not possess sufficient integrity to be individually eligible for National Register listing. A house exhibiting some alterations may contribute to the historic character of a district if it retains its original form and enough integrity of design and materials to be seen as an integral part of the district.

A somewhat lower threshold for integrity is also generally accepted for properties within districts that meet National Register criteria A or B. Since significance under criterion C is based on the architectural qualities of the district, alterations to the individual houses more severely diminish their ability to convey that significance.

Within a large postwar housing tract, the individual houses may exhibit alterations in a

bewildering number of combinations. In such cases, it may be useful to develop a scoring system as an aid in making more consistent determinations with respect to contributing and non-contributing properties. For example, a scoring system might subtract points for various alterations according to their relative severity. The individual houses could then be sorted and ranked from a score of zero (completely unaltered) to some negative number for the most extensively altered house. This exercise may help in determining where to set the threshold between contributing and non-contributing properties. Scoring and ranking systems should be tailored to the specific group of properties being evaluated and the types of alterations observed, rather than attempting to apply a more generic system in all cases. For this reason, no scoring system for general use is proposed in this document.

Many transportation projects will have the potential to affect only a small number of individual houses within a postwar tract. For example, a tract adjacent to a highway may include hundreds of houses, while only a single row of houses might be affected by a project to widen the highway. In many instances, it will be clear from a reconnaissance (“windshield”) survey that the tract lacks sufficient integrity for National Register eligibility. In other instances, a more detailed evaluation will be required to establish the presence or absence of an historic district. This does not mean that an intensive-level survey of the entire tract is necessary in all cases. Instead, some expedited survey and evaluation methods can be used to reach a conclusion about the eligibility of a district.

Rather than determining the contributor or non-contributor status of every property within a district, a sampling method, in conjunction

with a reconnaissance survey of the entire district, will often be sufficient to establish whether the district possesses enough integrity for National Register eligibility. Within a large tract, a few smaller areas, such as individual blocks in dispersed locations, could be selected for sampling. The individual houses in these areas could then be assessed for integrity and tentative conclusions made as to their status as contributors or non-contributors. If the sampled areas are representative of the tract as a whole, which can be confirmed by the reconnaissance survey, then the results of the sampling can be extrapolated to the tract as a whole. In this way, a defensible conclusion can be drawn as to whether the district includes a high enough proportion of contributing properties to be eligible for National Register listing. The size of the sample will depend on the size of the district and the amount of variety observed within the district. A small sample may be sufficient if it clearly points to a determination of eligibility or ineligibility. A larger sample may be necessary for borderline cases, where the eligibility of the district is less clear.

Such expedited methods will help to make survey efforts proportionate to the scope of the project and the extent of potential effects on historic properties. Surveying and evaluating dozens or even hundreds of properties may not be warranted when only a few will be affected by a project. Whether a district is ultimately determined to be eligible or ineligible for National Register listing, the evaluation must go beyond unsupported, impressionistic summaries or merely stating conclusions. The evaluation must include enough information to allow the State Historic Preservation Officer to concur in the determination, as required for Section 106 compliance.

Notes

Introduction

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 3. Kenneth T. Jackson, *Crabgrass Frontier: The Suburbanization of the United States* (Oxford University Press, 1987), 326 [Table A-13]. U.S. Census Bureau web page: "New Privately Owned Housing Units Started, Annual Data, 1959-2008" at <http://www.census.gov/const/startsan.pdf>.
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24. Ibid.
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27. Merry Ovnick, *Los Angeles: The End of the Rainbow* (Balcony press, 1994), 256. Gwendolyn Wright, *Building the Dream: A Social History of Housing in America* (MIT Press, 1981), 241.
28. Ames and McClelland, 50.
29. "The Changing Market for Housing," *House and Home*, March 1954, 198.
30. Wright, 241.
31. Ames and McClelland, 50-51.
32. Jackson, 205.
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5. Peter Blake, *God's Own Junkyard* (Holt, Rinehart and Winston, 1964).
6. *Ibid.*, 33.
7. Adam Rome discusses Blake's use of these photographs. Noting that in Blake's book “the Garnett photographs had become symbols of environmental devastation,” Rome asserts that “the radical rereading of Garnett's work reflected a dramatic change in the way many Americans reckoned the costs and benefits of suburban development” (pages 2-3). Rome's thesis is that the environmental movement, which became a nationwide phenomenon in the late 1960s and 1970s, was in part a response to the environmental damage that accompanied the postwar housing boom.
8. William Bronson, *How to Kill a Golden State* (Doubleday and Company, 1968).
9. *Ibid.*, 181.
10. Mumford, 486.
11. David Riesman, Reuel Denney, and Nathan Glazer, *The Lonely Crowd: A Study of the Changing American Character* (Yale University Press, 1950). Wilson Sloan, *The Man in the Grey Flannel Suit* (Simon and Schuster, 1955).
12. William H. Whyte, Jr., *The Organization Man* (Simon and Schuster, 1956).
13. *Ibid.*, 298.
14. *Ibid.*, 202-03.
15. *Ibid.*, 300.
16. Richard E. Gordon, Katherine K. Gordon and Max Gunther, *The Split-Level Trap* (Bernard Geis Associates, 1961).
17. *Ibid.*, 33 and thereafter.
18. *Ibid.*, 32.
19. *Ibid.*, 56.
20. *Ibid.*, 142.
21. D.J. Waldie, *Holy Land: A Suburban Memoir* (W.W. Norton, 1996), 40-41.
22. John Keats, *The Crack in the Picture Window: An Inquiry into America's Great Housing Developments* (Houghton Mifflin, 1957), xi.
23. *Ibid.*, xi-xii.
24. *Ibid.*, 63.
25. *Ibid.*, xii, 128.

26. Gordon, Gordon, and Gunther, 39.
27. Betty Friedan, *The Feminine Mystique* (W.W. Norton, 1963).
28. *Ibid.*, 243.
29. *Ibid.*, 246.
30. Scott Donaldson, *The Suburban Myth* (Columbia University Press, 1969), 1.
31. *Ibid.*, 8.
32. Leonard Eaton, "The American Suburb: Dream and Nightmare," *Landscape*, winter 1963-64, 15.
33. The percentage figures were calculated based on data from the U.S. Census Bureau web page, "Population of the 100 Largest Cities and other Urban Places in the United States: 1790 to 1990" at <http://www.census.gov/population/www/documentation/twps0027/twps0027.html>.
34. Barbara Kelly, "The Houses of Levittown in the Context of Postwar American Culture," in *Preserving the Recent Past* (conference papers, Historic Preservation Education Foundation, 1995), II-148.
35. Rosalyn Baxandall and Elizabeth Ewen, *Picture Windows: How the Suburbs Happened* (Basic Books, 2001), 167. Baxandall and Ewen cite the *Boston Globe*, 5 October 1997.
36. Waldie, vi.
37. *Ibid.*, 188.
38. *Ibid.*, 172.
39. U.S. Census Bureau web page, "Historical Census of Housing Tables: Plumbing Facilities," at <http://www.census.gov/hhes/www/housing/census/historic/plumbing.html>.
40. Herbert Gans, *The Levittowners* (Pantheon, 1967).
41. *Ibid.*, 165.
42. *Ibid.*, 409.
43. Peter Rowe, *Making a Middle Landscape* (MIT Press, 1991), 53.
44. Gordon, Gordon, and Gunther, 55-58. Baxandall and Ewen, 152. Elaine Tyler May, *Homeward Bound: American Families in the Cold War Era* (Basic Books, 1999), 21.
45. James Howard Kunstler, *The Geography of Nowhere: The Rise and Decline of America's Man-Made Landscape* (Simon and Schuster, 1993).
46. Andres Duany, Elizabeth Plater-Zyberk, and Jeff Speck, *Suburban Nation: The Rise of Sprawl and the Decline of the American Dream* (North Point Press, 2001).
47. Robert Bruegmann, *Sprawl: A Compact History* (University of Chicago Press, 2005). See Chapter 2, "Early Sprawl."
48. *Ibid.*, 60-69.
49. See for example, Stephanie Coontz, *The Way We Never Were: American Families and the Nostalgia Trap* (Basic Books, 1992) and Elaine Tyler May, cited above.
50. About.com web page: <http://marriage.about.com/od/statistics/a/medianage.htm>.
51. Gwendolyn Wright, *Building the Dream: A Social History of Housing in America* (MIT Press, 1989), 256. Wright cites Ernest Mowrer, "The Family in Suburbia," in *The Suburban Community*, edited by William Dobriner (G.P. Putnam's Sons, 1958).

52. U.S. Department of Labor, Bureau of Labor Statistics web page: <http://www.dol.gov/wb/stats/main.htm>.

Chapter 5: The Segregated Suburbs

1. Census data is not useful in studying the demographics of the Hispanic population of the United States during the period covered by this study. In the 1940 and 1950 census enumerations, only the categories “white,” “negro,” and “other” were used, and enumerators were instructed to record their own observations, questioning their subjects only when unsure. Enumerators were instructed to record people of Latin American birth or ancestry as “white” rather than “other” unless they were clearly of Native American stock. The 1960 and 1970 census enumerations used the same categories as in 1940 and 1950, but relied on the self-identification of subjects through the use of questionnaires.

2. Gerald D. Nash, *The American West Transformed: The Impact of the Second World War* (Indiana University Press, 1985), 92.

3. Roger Lotchin, *The Bad City in the Good War: San Francisco, Los Angeles, Oakland, and San Diego* (Indiana University Press, 2003), 144.

4. Josh Sides, *L.A. City Limits: African American Los Angeles from the Great Depression to the Present* (University of California Press, 2003), 46.

5. Robert Self, *American Babylon: Race and the Struggle for Postwar Oakland* (Princeton University Press, 2005), 166.

6. Sides, 109-110.

7. *Ibid.*, 106.

8. The role of the real estate industry in the passage of Proposition 14 is noted by Eunice and George Grier in *Equality and Beyond: Housing Segregation and the Goals of the Great Society* (Quadrangle Books, 1966), 63.

9. Arnold Hirsch, “Containment on the Home Front: Race and Federal Housing Policy from the New Deal to the Cold War,” *Journal of Urban History*, 26 (January 2000), 162-63.

10. David Kushner, *Levittown: Two Families, One Tycoon, and the Fight for civil Rights in America’s Legendary Suburb* (Walker Publishing, 2009), 190.

11. Sides, 108.

12. Self, 268.

13. *Ibid.*, 97.

14. Kushner, 75-76, quotes William Levitt on the issue of racial prejudice and housing segregation: “It is unfair to charge an individual for creating this attitude or saddle him with the sole responsibility for correcting it. The responsibility is society’s. So far society has not been willing to cope with it. Until it does, it is not reasonable to expect that any one builder should or could undertake to absorb the entire risk and burden of conducting such a vast social experiment.”

15. Kenneth Jackson, *Crabgrass Frontier: The Suburbanization of the United States* (Oxford University Press, 1987), 241.

16. D.J. Waldie, *Holy Land: A Suburban Memoir* (W.W. Norton, 1996), 162.

17. William Fulton, *The Reluctant Metropolis: The Politics of Urban Growth in Los Angeles* (Solano Press, 1997), 10.
18. Mike Davis, *City of Quartz: Excavating the Future of Los Angeles* (Verso, 2006), 168.
19. Self, 268.
20. Ibid., 127.
21. Eunice and George Grier, *Case Studies in Racially Mixed Housing: 1. Sunnyhills, Milpitas, California* (pamphlet produced by the Washington Center for Metropolitan Studies, Washington D.C., for the Princeton Conference on Equal Opportunity in Housing, 1962), 6.
22. Ibid. The story of Sunnyhills is also told at the website of the Sunnyhills United Methodist Church, <http://www.gbgm-umc.org/sunnyhills/history.htm>. The obstructions placed in the way of the developers in order to prevent the construction of a racially integrated tract are summarized in Andrew Wiese, *Places of Their Own: African American Suburbanization in the Twentieth Century* (University of Chicago Press, 2004), 102.
23. "A Bold Housing Plan for Milpitas," *San Francisco Chronicle*, 26 January 1955, 1. The *San Francisco Chronicle* covered the planning and construction of Sunnyhills in the following additional articles:
 - April 7, 1955: "Negro, White Subdivision Under Way," 1.
 - May 17, 1955: "Unsegregated Subdivision Gets Okay," 2.
 - August 20, 1955: "UAW Soon to Start White-Negro Housing," 4.
 - January 19, 1957: "New Builder for Union Tracts," 3.
 - January 15, 1958: "Interracial Housing Unit Set to Open," 3.
 - July 24, 1960: "Auto Workers Big Inter-Racial Housing Project at Milpitas All Sold," 9.
24. "Interracial Tract (On No-Down Terms) Turns Out 90% White," *House and Home*, February 1957, 66+.
25. Self, 116.
26. Edward Eichler, *Race & Housing* (Center for the Study of Democratic Institutions, 1964), 3.
27. Paul Adamson, et al., *Eichler: Modernism Rebuilds the American Dream* (Gibbs Smith, 2002), 199.
28. Eichler, 4-5.
29. Jerry Ditto and Lanning Stern, *Eichler Homes: Design for Living* (Chronicle Books, 1995), 102.
30. Eichler, 14.
31. "Joe Eichler quits NAHB in row over race bias," *House and Home*, August 1958, 41+.

Chapter 6: The Cold War and Fallout Shelters

1. Martin Walker, *The Cold War: A History* (Henry Holt & Co., 1994), 101.
2. Lawrence Freedman, *Kennedy's Wars: Berlin, Cuba, Laos, and Vietnam* (Oxford University Press, 2000), 72.
3. Walker, 178.

4. Susan Roy, *Bomboozled: How the U.S. Government Misled Itself and its People into Believing they Could Survive a Nuclear Attack* (Pointed Leaf Press, 2010), 29.
5. *Ibid.*, 31, 42-43.
6. Federal Civil Defense Administration, *Home Shelters for Family Protection in an Atomic Attack* (Technical Manual 5-5, U.S. Government Printing Office, 1953).
7. "Their Sheltered Honeymoon," *Life*, August 10, 1959, 51-52.
8. "The Sheltered Life," *Time*, October 20, 1961, 22.
9. "How You Can Survive Fallout," *Life*, September 15, 1961, 96.
10. *Ibid.*
11. The *Los Angeles Times* ran at least two stories concerning fallout shelters constructed in front yards: Spencer Crump, "Family Hopes to 'Waste' \$2,500," July 24, 1960, WS3, and "First Fallout Shelter," October 1, 1961, WS3.
12. The drum form is illustrated in advertisements for Fox Hole Shelter, Inc. of Reseda. *Los Angeles Times*, May 14, 1961, A50. The igloo form is illustrated in advertisements for the California Survival Corp. of Los Angeles. *Los Angeles Times*, October 16, 1960, H10. The cylinder form is illustrated in Kenneth D. Rose, *One Nation Underground: A History of the Fallout Shelter* (New York University Press, 2001).
13. "Model Fall-out Shelter to Be Built in Downey," *Los Angeles Times*, October 4, 1959, F13. "Model Atom Fallout Shelter in Downey Area Completed," *Los Angeles Times*, November 8, 1959, F13.
14. Rose, 79.
15. "Boom to Bust," *Time*, May 18, 1962, 20.
16. "120 Shelter Permits Issued in 3 Weeks," *Los Angeles Times*, September 21, 1961, B1.
17. "Shelter Permits Rise in San Diego," *Los Angeles Times*, September 29, 1961, B10.
18. "Pools Top Shelters in Building Permits," *Los Angeles Times*, 12 November 1961, SG1. "Homeowners Turn to Fallout Shelters," *Los Angeles Times*, December 3, 1961, OC7.
19. "Interest in Shelters Rising," *Los Angeles Times*, October 29, 1961, B5.
20. "CD May Tally Area's Secret Fallout Shelters," *Los Angeles Times*, February 26, 1961, SF_A16. "Many Shelters Illegal, Says Building Chief," *Los Angeles Times*, September 24, 1961, OC1.
21. Louis Fleming, "Less Interest in Shelters Confirmed," *Los Angeles Times*, December 28, 1961, 10.
22. "Civil Defense: Shelter Boom," *Newsweek*, September 18, 1961, 24, 29.
23. "Built-in Bomb Shelters," *Time*, March 24, 1961, 19. Al Johns, "Fallout Shelter Launches Debate," *Los Angeles Times*, February 26, 1961, I1. Display advertisement for Sunset Conejo and the Dales tracts, *Los Angeles Times*, March 19, 1961, WS11.
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25. Philip Vallejo, *Fourth Supplemental Historical Property Survey Report for the East Sonora Bypass Project, Stage 2, in Tuolumne County, California* (Fresno: California Department of Transportation, District 6 Office), 2011. Concurrence letter from Milford Wayne Donaldson, California State Historic Preservation Officer, to Jeanne Binning of Caltrans, dated June 16, 2011.

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2. Kenneth Jackson, *Crabgrass Frontier: The Suburbanization of the United States* (Oxford University Press, 1987), 139.
3. Greg Hise, *Magnetic Los Angeles: Planning the Twentieth Century Metropolis* (Johns Hopkins University Press, 1997), 125-126.
4. Hise, "Home Building and Industrial Decentralization in Los Angeles: The Roots of the Postwar Urban Region," *Journal of Urban History*, February 1993, 98.
5. Michael Southworth and Eran Ben-Joseph, "Street Standards and the Shaping of Suburbia," *Journal of the American Planning Association*, winter 1995, 77.
6. Peter Rowe, *Making a Middle Landscape* (MIT Press, 1991), 198-199.
7. Robert Fishman, *Bourgeois Utopias: The Rise and Fall of Suburbia* (Basic Books, 1987), 146-147.
8. William H. Whyte, Jr., *Cluster Development* (American Conservation Association, 1964). "Is This New Kind of Layout the Answer to 'Big-lot' Zoning?" *House and Home*, September 1959, 116-117. "The Best of Our Land Planning is Now Very Good Indeed," *House and Home*, August 1960, 164f-164s.
9. Whyte, 74-75.
10. Carol Ann Gregory, "Sacramento's Greenhaven/Pocket Area: History, Planning, Development, and Suburban Growth" (M.A. Thesis, University of California, Davis, 1998), 23, 30-31, 35-36.
11. David L. Ames and Linda Flint McClelland, *Historic Residential Suburbs: Guidelines for Evaluation and Documentation for the National Register of Historic Places* (National Park Service, U.S. Department of the Interior, 2002), II-99. Ebenezer Howard, *Garden Cities of To-Morrow* (MIT Press, 1965).
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13. Robert A. Beauregard, *When America Became Suburban* (University of Minnesota Press, 2006), 109.
14. U.S. Census Bureau web page: "New Privately Owned Housing Units Started, Annual Data, 1959-2009," at <http://www.census.gov/const/startsan.pdf>.
15. Ibid.
16. California Building Industry Association website, "Housing Starts," at <http://www.cbia.org/go/cbia/newsroom/housing-statistics/housing-starts/>, with link to "Chart: California annual new housing units, 1954-present."
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21. Ibid., 245-246.
 22. Ibid.
 23. Ibid., 245.
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3. Greg Hise, *Magnetic Los Angeles: Planning the Twentieth Century Metropolis* (Johns Hopkins University Press, 1997), 135.
4. See Maisel, 20-23 for the number of builders. For this group's market share, see "The Builders' House," *Architectural Forum*, April 1949, 81.
5. "Biggest Homebuilders of 1953," *House and Home*, January 1954, 40-41. "Biggest Homebuilders of 1954," *House and Home*, January 1955, 40-41.
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7. Rob Keil, *Little Boxes: The Architecture of a Classic Midcentury Suburb* (Advection Media, 2006), 18.
8. James Thomas Keane, *Fritz B. Burns and the Development of Los Angeles: The Biography of a Community Developer and Philanthropist* (Historical Society of Southern California, 2001), 164.
9. Alan Hess, *The Ranch House* (Henry Abrams, 2004), 55.
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13. "Big Dave Bohannon: Operative Builder by the California Method," *Fortune*, April 1946, 145.
14. "Record-Breaking House Production," 133.
15. "Big Dave Bohannon: Operative Builder by the California Method," 192.
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17. James Thomas Keane, *Fritz B. Burns and the Development of Los Angeles: The Biography of a Community Developer and Philanthropist* (Historical Society of Southern California, 2001), 74-75.
18. Ibid., 75-77.

19. Hess, 46-47. "Big Dave Bohannon: Operative Builder by the California Method," 144-147+.
20. "Big Dave Bohannon: Operative Builder by the California Method," 145.
21. For Bohannon, see "Big Dave Bohannon: Operative Builder by the California Method," 199-200. For Levitt, see "4,000 Houses per Year," *Architectural Forum*, April 1949, 91.
22. "1952/1962: 10 Years of Progress in Housing," *House and Home*, March 1962, 105.
23. "Big Dave Bohannon: Operative Builder by the California Method," 145. "Record-Breaking House Production," 133.
24. "Big Dave Bohannon: Operative Builder by the California Method," 199.
25. Kenneth Jackson, *Crabgrass Frontier: The Suburbanization of the United States* (Oxford University Press, 1987), 326.
26. "What Lies Ahead for Home Building," *House and Home*, January 1952, 138-139.
27. Ibid.
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29. "Housing takes to Detroit Ways," *Business Week*, April 30, 1955, 72.
30. Thomas T. Fetters, *The Lustron Home: The History of a Postwar Prefabricated Housing Experiment* (McFarland and Company, 2002), 155.
31. Ibid., 150.
32. Ibid., 159-174. On the greater popularity of prefabrication in the Midwest, see "Prefabrication has something for Everyone," *House and Home*, December 1954, 102-107, and "Prefabrication is Breaking out of the Midwest Triangle," *House and Home*, December 1955, 103. The latter article notes that four Midwestern states (Ohio, Indiana, Illinois, and Michigan) accounted for more than half of the prefabricated houses built in the 1954-55 period.
33. Fetters, 159-174.
34. Peter Reed, "Enlisting Modernism," in Donald Albrecht, ed., *World War II and the American Dream: How Wartime Building Changed a Nation* (MIT Press, 1995), 27.
35. Ibid. Jeffrey Head, "Snatched from Oblivion," web page of the *Metropolis* magazine website at <http://www.metropolismag.com/storhy/20061011/snatched-from-oblivion>.
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37. Ibid., 266.
38. Ibid.
39. Ibid., 284.
40. Ibid.
41. Ibid., 285.
42. Ibid., 286-289.
43. Ibid., 304-06.
44. Jeffrey Head, "Rediscovering a Prefab Pioneer," Web page of the *Architectural Record* website: <http://archrecord.construction.com/features/critique/0810critique2.asp>.

45. Keane, 121. "Greatest House-Building Show on Earth," *Architectural Forum*, March 1947, 105-113.
46. Keane, 126-127.
47. "Greatest House-Building Show on Earth," *Architectural Forum*, March 1947, 105-113.
48. Keane, 126-127.
49. Daniel P. Gregory, *Cliff May and the Modern Ranch House* (Rizzoli, 2008), 128-141. "California's New Best Seller," *House and Home*, July 1953, 93-99.
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Chapter 9: House Types and Styles

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2. "Forum Yardstick Houses," *Architectural Forum*, June 1947, 102-104.
3. Larry Ford, *Cities and Buildings* (Johns Hopkins University Press, 1994), 166. Thomas Hine "The Search for the Postwar House" in Elizabeth Smith, ed., *Blueprints for Modern Living: History and Legacy of the Case Study Houses* (MIT Press, 1998), 179.
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9. Hess, 26. Daniel Gregory, "The Nature of Restraint: Wurster and His Circle," in Marc Treib, ed., *An Everyday Modernism: The Houses of William Wurster* (University of California Press, 1995), 106-07. David Gebhard, "William Wurster and His California Contemporaries," also in Treib, 166.
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11. Daniel Gregory, *Cliff May and the Modern Ranch House* (Rizzoli, 2008), 28.
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15. *Ibid.*, 41-43.
16. In *Architectural Forum*, see: "Life Houses," November 1938, 332-35; January 1948, entire issue; "Frank Lloyd Wright," January 1951, 75-104; and "Frank Lloyd Wright," June 1959, 115-45. In *House and Home*, see: "A House by Frank Lloyd Wright for Mr. and Mrs. Herman T. Mossberg," December 1952, 66-73; "This New House by Frank Lloyd Wright is a Rich Textbook of the Principles He Pioneered," March 1953, 106-13; "Frank Lloyd Wright," November 1953, 118-21; "Frank Lloyd Wright and the Natural House," January 1955, 166-68; and "Three New Houses by Frank Lloyd Wright," August 1958, 101-13.
17. In *Architectural Forum*, see: "Four Houses in California," May 1936, 377-402; "House for Mitchell T. Neff, Ross, California," April 1937, 346-48; "House for Louis LeHane, Palo Alto, California," February 1939, 109-11; "House in Stockton, California," April 1940, 252-53; and "Two Bedrooms, Two Baths, Maid's Room, Enclosed Porch," April 1941, 238-40. In *Architectural Record*, see: "House for Dr. Alister MacKenzie, Pasatiempo Estates near Santa Cruz, California," March 1933, 208-09; "House of Thomas D. Church, Pasatiempo Estates, Santa Cruz, California," October 1934, 229-33; "House of Mr. and Mrs. Earl Ellicot Kaplansky, near Santa Cruz, California," December 1934, 398-99; "House of Frank McIntosh, Los Altos, California," May 1937, 24-26; "A Four-Room House," March 1938, 140-42; "A Weekend Retreat in California," March 1940, 64-65; and "House near Gilroy, California for Mrs. A. G. Reynolds," May 1941, 52-54.
18. "Six Ranch Houses for Modern Living," *Architectural Record*, April 1947, 82-87. "A Big Sprawling House in the 'Ranch Style' is Built on a Four-Prong Plan," *Architectural Forum*, April 1948, 116.
19. "Our First Prize House," *House Beautiful*, March 1931, 238-240.
20. "We Don't Like Pretentious Architecture," *House Beautiful*, April 1946, 94-95.
21. "The Dramatic Story of Frank Lloyd Wright," various articles, November 1955. "Your Heritage from Frank Lloyd Wright," various articles, October 1959. "A Great Frank Lloyd Wright House," January 1963.
22. Gregory, 84-85.
23. *Ibid.*, 22.
24. *Ibid.*, 111.
25. Hess, 13, 15.
26. Hess, 13-14, 36-27. Royal Barry Wills, *Better Houses for Budgeteers; Sketches and Plans by Royal Barry Wills* (Architectural Book Publishing Co., 1941) and *Living on the Level; One-story Houses* (Houghton Mifflin, 1955).
27. See for example the advertisement for Scholz Homes of Toledo in *House and Home*, July 1955, page 44. The advertisement includes illustrations of seven different Ranch house designs, all described as "California Contemporary." There is nothing distinctly Californian about any of the designs.

28. Kaiser Community Homes developed an aluminum siding material for buildings in 1948, possibly the first of its kind. It was used on one of the model houses in the company's Panorama City development in the San Fernando Valley of Los Angeles. See Greg Hise, *Magnetic Los Angeles: Planning the Twentieth-Century Metropolis* (Johns Hopkins University Press, 1997), page 174. However, aluminum siding was never widely adopted for new housing construction in California.

29. "What We have Learned about Land," *House and Home*, March 1962, 145.

30. *Ibid.*, 104.

31. "What's Happening in Split Levels," *House and Home*, April 1954, 110-124.

32. See Lesley Jackson, *Contemporary: Architecture and Interiors of the 1950s* (Phaidon, 1998).

33. See for example "New Spirit in St. Louis," *House and Home*, August 1955, 118-25, and "The Market for Contemporary: is it Big Enough to Make Sense for the Merchant Builder?" *House and Home*, October 1963, 107-117.

34. "Why have all these builders switched to post-and-beam and/or plank-and-beam?" *House and Home*, June 1954, 98-115.

35. Joseph Eichler built an all-steel house in Palo Alto in 1955, designed by architect Raphael Soriano. See "With Steel Components Like These You Can Build a House," *House and Home*, December 1955, 138-143. The Alexander Construction Company built a small group of steel houses in Palm Springs in the early 1960s, designed by Donald Wexler. See Jack Levitan, "Don Wexler Interview," *CA Modern*, online version at the Eichler Network website: http://www.eichlernetwork.com/desert_chron13.html, and Jack Levitan, "Steel Ideal," *CA Modern*, online version at the Eichler Network website: http://www.Eichlernetwork.com/fnc_steel.html.

36. "Built-in Merchandising Lifts California Builder Joe Eichler into the Big Time," *House and Home*, July 1955, 128-135. "The Market for Contemporary: is it Big Enough to Make Sense for the Merchant Builder?" *House and Home*, October 1963, 107-117.

37. Paul Adamson, et al., *Eichler: Modernism Rebuilds the American Dream* (Gibbs Smith, 2002), 22.

38. "But Modern Has no Monopoly on Luxury," *House and Home*, February 1956, 115-119.

39. "Looking for an Argument? Here's What Men behind Houses Think of Current Design Trend," *San Diego Union*, March 13, 1960, F1-F3. The article's statement that the Storybook style in California originated in Los Angeles is confirmed by the sampling of newspaper advertisements described below (see note 55).

40. Display advertisements in the *San Diego Union*, June 2, 1957, F7. One of the earliest Storybook tracts in Orange County was marketed by the Godbey Development Company as "Enchanted Park." Display advertisement in the *Los Angeles Times*, June 3, 1956, E6.

41. "Is this the end of Storybook Design?" *House and Home*, September 1960, 102-03.

42. "How Americans are Using Japanese Ideas," *House Beautiful*, September 1960, 126-137.

43. There is as yet no style term for these houses. "Sweeping roof style" is descriptive but not very catchy. Jill Hupp of Caltrans Headquarters has suggested

“Bradyesque” or “Brady style,” after the house of the fictional blended family in the television sitcom *The Brady Bunch*. The show is perfectly contemporary with the houses, originally running on the ABC network from 1969 through 1974.

44. “California: Here it Comes,” *House and Home*, May 1969, 102-125.

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Appendix

Image Gallery and Characteristic Features of Postwar Houses

Postwar Minimal House (1945 – ca. 1953)

- Postwar Minimal houses are small, with compact plans.
- Tracts of Postwar Minimal houses often have a limited number of different floor plans or models.
- One-car garages are common, particularly on the earlier examples.
- Garage doors have simple designs of wood trim.
- Large, multi-pane picture windows are a prominent feature on many examples.



Westdale tract, Los Angeles, ca. 1948



Riverside County, ca. 1950



San Mateo, ca. 1952



*El Sobrante, Contra Costa County.
Built ca. 1953 by Earl "Flat-top" Smith.*



Lakewood, Los Angeles County, ca. 1950



Oildale, Kern County, ca. 1952

Ranch House (ca. 1953 – 1970s)

- The Ranch house has an elongated form and may have multiple wings. Larger examples may have complex, sprawling plans, while L-shaped or T-shaped plans with the garage projecting forward are common on narrower lots.
- Ranch houses are one story and exhibit a predominant horizontality. This horizontality is emphasized by low-pitch roofs, unbroken eave lines, and horizontal banding on facades through the use of wainscots and grouped windows.
- Wide slab chimneys provide a visual counterpoint to the predominant horizontality.
- Small areas of masonry are common on facades, in addition to being used for raised planters and chimneys.



Simi Valley, Ventura County



Riverside County



Riverside County



Bakersfield, Kern County



La Mesa, San Diego County



Sacramento



San Fernando Valley, Los Angeles



San Fernando Valley, Los Angeles



Thousand Oaks, Ventura County



La Mesa, San Diego County



San Diego

Multi-level Houses (ca. 1963 – 1970s)

- Multi-level houses include split-level, 1½ story, and two story designs. Two story designs are the most common in California, while split-levels are the least common.
- Early examples are boxy in form, prior to the introduction of the sweeping-roof style in the late 1960s.
- Some examples that appear 1½ stories from the front are a full two stories at the rear.
- Multi-level houses are seen earlier in the Bay Area than elsewhere in California, as early as the mid-1950s.



Hanover Square tract, Saratoga, Santa Clara County, ca. 1964



Pacifica Heights tract, Pacifica, San Mateo County. Built ca. 1973 by Levitt and Sons.



San Diego. Built ca. 1972 by Larwin Construction.



Rosa del Rio tract, Sacramento, ca. 1973



Westlake development, Daly City, San Mateo County. Built ca. 1950 by Henry Doelger.



Westlake development, Daly City, San Mateo County. Built ca. 1950 by Henry Doelger.



La Mesa, San Diego County



San Simeon tract, San Diego, ca. 1968



Mount Washington West tract, Los Angeles, ca. 1965



Mount Washington West tract, Los Angeles, ca. 1965



San Jose



*Bravo Chino tract, Chino, San Bernardino County.
Built ca. 1974 by Ponderosa Homes.*

Contemporary Style (ca. 1947 – mid-1950s, with a small number of builders continuing the style into the 1970s)

- Early examples are small, with compact plans. Later examples are larger, with some having atrium plans.
- Post-and-beam construction is much more common than stud construction, with roof overhangs supported by projecting beams.
- Gable roofs of very low-pitch are the most common. Other roof forms include flat, single-pitch, and butterfly.
- Carports rather than enclosed garages are more common than on other styles.
- The triangular gable area often has glazing, but facades may otherwise have limited fenestration.
- Vertical wood siding is more common than horizontal forms, and garage doors are typically clad in the same siding as the exterior walls.
- Where masonry is used, it is most often laid in stack bond rather than running bond.
- Entry areas and patios may have screens of ornamental concrete block.
- Roof overhangs and canopies are supported by slender wood or steel columns.



*Country Club Park tract, Chula Vista, San Diego County.
Built ca. 1954 by Sam Berger Construction.*



*Country Club Park tract, Chula Vista, San Diego County.
Built ca. 1954 by Sam Berger Construction.*



*Country Club Park tract, Chula Vista, San Diego County.
Built ca. 1954 by Sam Berger Construction.*



La Mesa, San Diego County, ca. 1952.



Meadowlark Park tract, Los Angeles. Built ca. 1952 by Ray Hommes. Edward Fickett, architect.



Fullerton Grove tract, Fullerton, Orange County. Built ca. 1953 by Pardee-Phillips Construction. Jones and Emmons, architects.



The Meadows tract, Palo Alto, Santa Clara County. Built ca. 1953 by Burke and Wyatt.



The Meadows tract, Palo Alto, Santa Clara County. Built ca. 1953 by Burke and Wyatt.



Sacramento County, ca. 1954.



Sacramento County. Built ca. 1962 by Streg Brothers Homes.



Mar Vista tract, Los Angeles. Built 1947-48. Gregory Ain, architect.



Racquet Club Road Estates, Palm Springs, Riverside County. Built ca. 1960 by the Alexander Construction Company. Palmer and Krisel, architects.



San Diego



Villa Marina tract, San Diego, ca. 1964



Meadowlark Park tract, Los Angeles. Built ca. 1952 by Ray Hommes. Edward Fickett, architect.



Balboa Highlands tract, Los Angeles. Built ca. 1963 by Eichler Homes.



Fairmeadow tract, Palo Alto, Santa Clara County. Built ca. 1954 by Eichler Homes. Jones and Emmons, architects.



Fairmeadow tract, Palo Alto, Santa Clara County. Built ca. 1954 by Eichler Homes. Jones and Emmons, architects.



Sunnyvale, Santa Clara County. Built by Eichler Homes.



Sunnyvale, Santa Clara County. Built by Eichler Homes.

Rustic Ranch (ca. 1953 – mid-1960s)

- Board-and-batten siding is most common. Other forms of wood siding are also used, but stucco is less common than on other styles.
- Wood shingles are more common for roofing than on other styles.
- Larger houses may have varied roof levels that give the impression of addition over time.
- Eave overhangs have exposed rafter ends, often rounded.
- Shaped brackets support porch roofs, pent roofs, and projecting window bays.
- Windows may have diamond panes, usually with wood muntins rather than leading.
- Details include birdhouses or dovecotes, x-bracing on garage doors, decorative shutters of rustic design, and planter boxes or shelves below windows.



Sunnyvale, Santa Clara County



Rowland Heights, Los Angeles County. Note the suggestion of a hayloft door in the front gable.



Elaborate (but fake) birdhouse, Bakersfield



Rustic details, Bakersfield



San Marino, Los Angeles County

Storybook Style (ca. 1956 – ca. 1963)

- All of the features of the Rustic Ranch are also seen on Storybook houses.
- Facades often have two or more siding materials with contrasting textures.
- Secondary gable roofs may be steeply pitched, asymmetrical, and extend well below the main eave line of the house, sometimes to only a few feet above the ground.
- Gables have scalloped or shaped ornamental bargeboards.
- Windows have bold ornamental surrounds or shutters with abstract designs or cutouts.
- Shallow gable overhangs and projecting window bays are supported by shaped corbels.



San Fernando Valley, Los Angeles



Glenbrook tract, Whittier, Los Angeles County, ca. 1960



Riverside County



Dutch Haven tract, San Jose, ca. 1960



*Lake Murray Village tract, La Mesa, San Diego County.
Built ca. 1958 by Hobart Homes.*



Parkway Estates tract, Sacramento, ca. 1960



Dutch Haven tract, San Jose, ca. 1960



San Diego



Dutch Haven tract, San Jose, ca. 1960



San Diego



San Diego



Riverside County



Riverside County



Skylark Terrace tract, Buena Park, Orange County, ca. 1956



San Fernando Valley, Los Angeles



Enchanted Park tract, Buena Park, Orange County, ca. 1956



Dutch Haven tract, San Jose, ca. 1960



Enchanted Park tract, Buena Park, Orange County, ca. 1956

Asian Influence (ca. 1958 – mid-1960s)

- Roofs are gable-on-hip with latticework in the gable ends.
- The upturned eaves of Asian architecture are suggested by a slight upward flare or projection at the corners of the eaves or at the ends of the roof ridge.
- Projecting ridge beams with shaped ends are common.
- Some examples have vertical wood trim that divides the façade into panels.
- Garage doors have geometric ornament of Asian inspiration.
- Decorative wood screens or lattices may adorn the front entrance or a portion of the façade.



Glenbrook tract, Whittier, Los Angeles County, ca. 1960



Glenbrook tract, Whittier, Los Angeles County, ca. 1960



Wakefield tract, Fullerton, Orange County, ca. 1963



Riverside County



Rowland Heights, Los Angeles County



La Mesa, San Diego County

Sweeping-roof Style (ca. 1967 – 1970s)

- Broad gable roofs of medium pitch cover all or most of the building footprint.
- Roof overhangs on gable ends are supported by projecting beams, while beams and freestanding columns support the roof over the entrance.
- Tall covered entries of 1½ to two stories lead to solid double doors.
- Verticality is emphasized on facades through the use of piers, chimneys, vertical bands of contrasting siding materials, and window trim that extends the full height of the façade.
- More than one exterior siding material is typically used, to increase variety and texture.
- Trellis effects with exposed rafters are common at entries.
- Garage doors are clad in wood, often matching the exterior siding.
- Wood trim is of robust scale and often rough-sawn to provide additional texture.
- Some examples have upper level balconies, often above the front portion of the garage.



La Mesa, San Diego County



*Bravo Chino tract, Chino, San Bernardino County.
Built ca. 1974 by Ponderosa Homes.*



San Diego



*North Ridge tract, Sacramento County.
Built ca. 1971 by Larchmont Homes.*



Escondido, San Diego County



*Cerritos, Los Angeles County. Built ca. 1972
by Larwin Construction.*



*Cerritos, Los Angeles County. Built ca. 1972
by Larwin Construction.*



San Diego. Built ca. 1972 by Larwin Construction.



*Riviera East tract, Sacramento County.
Built ca. 1971 by Larchmont Homes.*



*Ponderosa North tract, San Jose. Built ca. 1973
by Ponderosa Homes.*



Anaheim, Orange County



University Village tract, San Diego, ca. 1970



San Diego. Built ca. 1972 by Larwin Construction



University Village tract, San Diego, ca. 1970



*Bravo Chino tract, Chino, San Bernardino County.
Built ca. 1974 by Ponderosa Homes.*



*North Ridge tract, Sacramento County.
Built ca. 1971 by Larchmont Homes.*



University Village tract, San Diego, ca. 1970



*Ponderosa North tract, San Jose. Built ca. 1973
by Ponderosa Homes.*

Mansard Roof (ca. 1963 – 1970s)

- The roof form is the dominant feature. It is sometimes merely a hat on top of the house, rather than enclosing an upper floor.
- Walls are typically stucco rather than wood siding.



Hanover Square tract, Saratoga, Santa Clara County, ca. 1964



Villa del Oro tract, Campbell, Santa Clara County, ca. 1968



La Mesa, San Diego County



University City tract, San Diego, ca. 1971



Cerritos, Los Angeles County. Built ca. 1972 by Larwin Construction.



Cerritos, Los Angeles County. Built ca. 1972 by Larwin Construction.

Inverted Mansard (ca. 1967 – 1970s)

- As with the Mansard, the roof form is the dominant feature, with a hipped roof of low pitch around a raised central portion having steeply-pitched sides. The central portion of the roof is sometimes a different material. Projecting wings may have hip roofs without the raised central portion.
- The plan may consist of grouped or clustered rectangular forms, with each volume having its own distinct roof.



*The Hills tract, Diamond Bar, Los Angeles County.
Built ca. 1968 by M. J. Brock and Sons.*



*The Hills tract, Diamond Bar, Los Angeles County.
Built ca. 1968 by M. J. Brock and Sons.*



*The Hills tract, Diamond Bar, Los Angeles County.
Built ca. 1968 by M. J. Brock and Sons.*



Rosa del Rio tract, Sacramento, ca. 1973



University City tract, San Diego, ca. 1971



University City tract, San Diego, ca. 1971

Spanish Style (ca. 1967 – 1970s)

- The style is usually seen as a subset of the sweeping-roof style.
- Exterior walls are stucco.
- Roofs may have Mission or Spanish tile, although asphalt shingles are more common.
- Stucco arches are common at the entry or across the front porch.
- Wood entry doors and garage doors have raised panels of bold scale.
- Decorative details include corbel blocks or projecting beam ends supporting balconettes, ornamental ironwork, wood lintels of robust scale above windows and doorways, and attic vents consisting of grouped clay pipes or tiles.



La Mesa, San Diego County



Cerritos, Los Angeles County. Built ca. 1972 by Larwin Construction.



Villa del Oro tract, Campbell, Santa Clara County, ca. 1968



Pacifica Heights tract, Pacifica, San Mateo County. Built ca. 1973 by Levitt and Sons.



The Hills tract, Diamond Bar, Los Angeles County. Built ca. 1968 by M. J. Brock and Sons.



Riviera East tract, Sacramento County. Built ca. 1971 by Larchmont Homes.

Sea Ranch Style (ca. 1969 – early-1970s)

- The overall form consists of a cluster of distinct volumes, each having a shed roof of steep pitch.
- The roofs slope in different directions or are offset vertically rather than forming traditional gables. Roofs have no overhang.
- Vertical wood siding and shingle siding are common. A single siding material is used for the entire building, rather than mixing materials on the same building.
- Exterior walls are relatively flat, further emphasizing the overall form rather than construction details. Doors and windows are set flush with the exterior walls and have minimal trim.
- Applied ornament and articulation of details are completely absent.



Scripps Ranch development, San Diego County, ca. 1973



Solana Beach, San Diego County, ca. 1973



San Rafael, Marin County, ca. 1969



University Park tract, Irvine, Orange County, ca. 1971

