

Additional Mid-Century Developments

The Greenbelt Experiment

Greenbelt Maryland Greenbelt differs from all the other examples included here because it is the only project undertaken by the Federal government. The first of three model new towns developed by the Resettlement Administration headed by Rexford Tugwell. Greenbelt was planned as a complete entity with homes, shops, schools, churches, civic buildings, and other amenities, the first residents arrived in 1937. The plan grouped homes (most were two-bedroom row houses) in superblocks connected by a system of pathways permitting residents to go from home to the town center without crossing a major street. Pedestrian and vehicular traffic were carefully separated. The architecture, a mix of streamlined in the Art Deco style with curving lines and glass brick inserts in the facades of some apartment buildings with the white walls and flat roofs elements of the International Style; there were even aspects taken from English Garden Cities. Greenbelt was also designed as a social experiment to provide affordable housing for low income families, initially 885 housing units were built. The Greenbelt Homeowners Cooperative formed in 1941 by a group wanting larger houses and were able to obtain leases from the Farm Security Admin. They began clearing land and hired Wright apprentice Henry Klumb to draw up plans. Construction on the initial group of houses was to start in February 1942 but with the outbreak of the war that did not happen. Nonetheless, with the approach of hostilities, an additional 1000 units were constructed in 1941 to provide housing for families coming to Washington to work in defense programs. Greenbelt while separated from the post war housing boom by less than a decade, represents a different approach to housing needs from the post-war era. By the end of World War II, row houses were no longer considered acceptable. In the decade following the end of the war, nearly all new single-family houses were detached, standing alone on their lot⁸.



Three Master Builders

Levitt and Sons: Founded in 1929 by Abraham Levitt the company was one of the master builders of the period, constructing more than 140,000 homes in New York, New Jersey, Pennsylvania, Puerto Rico and elsewhere. Their first and most famous development was Levittown, New York. The company's designs and building practices were innovative and along with massive developments such as Lakewood, California revolutionized the home building industry and altered America's landscape with massive suburban communities. Levitt and Sons were the most prolific builders in the nation in the post war period and had the greatest impact on home manufacturing practices. Initially the company catered to upper middle-class until 1941 when they



⁸ Jackson, Kenneth T., *Crabgrass Frontier: The Suburbanization of the United States* (Kindle Locations 4559-4564). Oxford University Press. Kindle Edition.

became involved in building housing for the war effort. Beginning with more than 2000 homes for war workers in Norfolk, Virginia, there and later in other war-time projects they developed the techniques that enabled them to pour dozens of concrete foundations in a single day and to preassemble uniform walls and roofs. Following the war William Levitt returned from serving in the Navy with the idea of expanding to meet the needs of the millions of returning veterans. In 1946 the Levitts began buying land on Long Island for what would become Levittown. Another brother, Alfred was an architect who designed the early houses; he openly professed admiration for Frank Lloyd Wright and used many of the cost-saving design features from Wright's "Usonian" designs. An early model home in 1951, a ranch style dubbed the "Levittowner" featured an open space plan, radiant heat in the concrete slab floor/foundation, a carport all found in Wright's Usonians.

Levittown: The land was cleared, roads and utilities put in place for what would be a new town with 17000 homes, schools, shops, churches and other amenities. Under William Levitt's leadership the



company became a vertically integrated operation that made its own concrete, grew its own timber, and cut its own lumber. It also bought all appliances from wholly owned subsidiaries. The construction process became an assembly line with workers trained for a single job and whenever possible parts were preassembled offsite, ready for instillation. Although small (only 750 square feet initially eventually increasing to about 1000 square feet) they were well planned to meet the needs of modern families.

Kitchens were located at the front to enable the mother to watch children in the front yard and minimize steps needed to cook and wash. Living rooms, at the back of the house had large picture windows looking into the back yard. The houses were built on concrete slabs with radiant heat installed, plywood and particle board replaced lath, standardized windows, doors and cabinets were all be mass produced. While inexpensive, small and bland (at least initially before owners began expanding and remodeling) the houses were well built and most remain even now.

Joseph Eichler Homes California-

Eichler built more than 11,000 modernists homes primarily in Northern California between 1950 and 1974. Eichler Homes were distinct from contemporary alternatives elsewhere part of the branch of Modernist architecture known as "California Modern," which typically featured glass walls, post-and-beam construction and open floor plans in a style indebted to Mies van der Rohe and Frank Lloyd Wright. Eichler exteriors featured flat or low-sloping roofs, vertical siding, and spartan facades with geometric lines.



Carports typically were prominently placed at the front reflecting not only the need for transportation, but the importance of the car as a status symbol. Separately, the desire for privacy was accommodated by a "back to front" design that placed the living and dining rooms at the rear of the house facing an enclosed garden. Eichler was inspired by Frank Lloyd Wright and briefly lived in a Usonian near San Francisco. He became intrigued by the spatial complexities of that house and eventually "...began to dream of building homes for sale that would incorporate some of the same advantages I enjoyed in my house⁹."

⁹ Adamson, Paul, Eichler: Modernism Rebuilds the American Dream, Gibbs Smith Publisher, 2002, pg. 46.

Paul Trousdale California Homes

Like other master builders, Trousdale had worked with the New Deal and anticipated the rush for postwar housing in California. His early projects favored New England design motifs but nonetheless featured open floor plans and indoor-outdoor living arrangements typical of Wright and mid-century design. In his Baldwin Hills (near Los Angeles) development of 1947, Trousdale also incorporated the first regional shopping center in the nation (a regional shopping center has at least three major anchor stores).

Trousdale Estates Beverly Hills California:

Once the property was acquired, Trousdale lobbied for annexation by Beverly Hills to add the touch of luxury he felt necessary to ensure success for the project. The development process differed from other Trousdale projects, only lots were sold, and buyers hired their own architects and builders. Development was strictly controlled with the minimum house size of 3,000 square feet, ceiling heights



were typically restricted to fourteen feet to ensure unrestricted views for neighbors, all designs required approval from the master architect of the project. The overall style is high-end California Modern, coupled with the neo-formalism stemming from such civic projects as Lincoln Center in New York. The homes typically featured open space planning, walls of glass and state-of-the-art appliances and amenities. A conspicuously located carport for display of luxury automobiles was a key design element, cars were an essential part of the Southern California life-style and were deftly integrated into the planning of

Trousdale Estates (there were no sidewalks within the project boundaries). Trousdale Estates epitomizes the glamour of Hollywood, the California climate and the life style of the rich and famous. The project was marketed with snob appeal and was embraced by Hollywood celebrities, and others who could afford the elevated costs.

Case Study Houses – Southern California:

John Entenza Editor of Arts & Architecture conceived the Case Study program in 1945 to present to both the public and builders the potential for relatively inexpensive housing in a modern style that also emphasized new materials and construction techniques. The houses would be easy to reproduce and would address the critical housing shortages brought about by the depression and the war in preparation for the flood of returning GIs at the end of World War II. Entenza invited architects such as Richard Neutra, Charles and Ray Eames, and Eero Saarinen to participate.

Other well-known architects such as Rudolph Schindler, Gregory Ain and John Lautner were not asked by Entenza to participate and consequently, their work in the region typically did not garner the publicity associated with the Case Study houses. 36 Case Study houses were commissioned, about two dozen were built, eleven have been added to the National Register of Historic Places.



Lakewood California

Like Levittown, was a massive housing development consisting of 17,500 single-family homes built in the early 1950s a few miles southeast of Los Angeles. At that time, it was the largest private land development in United States history. As the war ended, Los Angeles faced a critical housing shortage and by the time the project office opened in 1950, more than 10,000 people arrived to sign up for houses before construction had begun. The developers added a major shopping center, as well as schools, churches, shops, and other amenities.

Lakewood was not a center of Mid-Century design but instead relied on more conventional small ranch style homes of about 1000 to 1500 square feet. The importance of Lakewood comes from its size representing the largest class of post war subdivisions and from the development of the solution about how to provide the necessary public services, which became known as the Lakewood Plan.:



The Lakewood Plan: Long Beach attempted to annex the unincorporated Lakewood development, however a group of residents organized and successfully incorporated to protect the community's independence. Lakewood was able to do so and thrive because of what became known as the Lakewood Plan, an agreement between Lakewood and Los Angeles County in which Lakewood contracted to receive the certain services provided by the county to unincorporated areas within the county. Lakewood and eventually other cities could choose from a menu of services including fire and police, sewers, library, road maintenance, health department, and building inspection. The plan spread beyond Lakewood with more than 30 contract cities in Los Angeles County. Now the plan has spread to cities in other California counties and beyond serving as a model for contract cities in Colorado, Georgia and elsewhere.

Palm Springs California

Palm Springs and the nearby area: contains the greatest concentration of Mid-Century architecture in the world. Wealthy clients and Hollywood celebrities hired well-known modernist architects including Richard Neutra, John Lautner, Rudolph Schindler, and Lloyd Wright all of whom had worked for or studied with Frank Lloyd Wright. Inspired by the stark desert landscape and minimalist modernist influences of the Bauhaus and the International Style they created a variant of modern architecture, Desert Modernism. Their buildings (both residential and commercial) respond to the abundant sunshine and arid climate with extensive overhanging eaves and intersecting roof planes shading walls of glass, expansive patios overlooking swimming pool decks and verandas. Many of the homes were second homes, weekend retreats for the wealthy. One development by Paul Trousdale purchase was by invitation only.



Selected Bibliography

Title	Author	Publisher	Date
Eichler: Modernism Rebuilds the American Dream	Adamson, Paul	Gibbs Smith Publisher	2002
Norman Bel Geddes Designs America	Albrecht, Donald [editor]	Abrams	2012
Julius Shulman's Los Angeles	Alexander, Christopher James	Getty Publications	2011
Art Deco	Arwas, Victor	Harry N. Abrams	1992
Age of the Masters: A Personal View of Modern Architecture	Banham, Reyner	Harper & Row	1962
Los Angeles, the Architecture of Four Ecologies	Banham, Reyner	Penguin	1976
Bauhaus	Bauhaus Archiv, Droste, Magdalena	Taschen	2006
Bauhaus 1919-1929	Bayer, Herbert	MoMA	1979
Art Deco Architecture: Design, Decoration and Detail from the Twenties and Thirties	Bayer, Patricia	Thames & Hudson	1999
Art Deco: 1910-1939	Benton, Charlotte, Benton, Tim & Wood, Ghislaine [eds]	V&A Publishing	2015
The Architectural Forum, January 1948: Frank Lloyd Wright	Bittermann, Eleanor [editor]	Time, Inc.	1948
Mid-Century Modern Complete	Bradbury, Dominic	Abrams	2014
American Art Deco	Breeze, Carla	W. W. Norton	2003
Marcel Breuer, 1902 - 1981: Form Giver of the Twentieth Century	Cobbers, Arnt	Taschen	2007
Prefab Houses	Cobbers, Arnt & Jahn, Oliver	Taschen	2014
Title	Author	Publisher	Date
Architecture in Uniform: Designing and Building for the Second World War	Cohen, Jean-Louis	Canadian Centre for Architecture	2011
Modern Architecture Since 1900	Curtis, William, J. R.	Phaidon	1996
Frank Lloyd Wright and the Living City	de Long, David [editor]	Vitra Design Museum	1998
Overdrive: L.A. Constructs the Future, 1940-1990	de Wit, Wim, Alexander, Christopher James [editors]	Getty Research Institute	2013

Frank Lloyd Wright, Usonian Houses	Futagawa, Yukio [edited]	A.D.A. EDITA	2002
The 1933 Chicago World's Fair: A Century of Progress	Ganz, Cheryl R.	University of Illinois	2008
The National Trust Guide to Art Deco	Gebhard, David	John Wiley & Sons	1996
Frank Lloyd Wright: His Contribution to the Beauty of American Life	Gordon, Elizabeth	Hearst Corporation	1955
The New Architecture and the Bauhaus	Gropius, Walter	MIT Press	1965
A Taliesin Legacy: The Architecture of Frank Lloyd Wright's Apprentices	Guggenhiemer, Tobias S.	Van Nostrand Reinhold	1995
In the Cause of Architecture: Essays by Frank Lloyd Wright for Architectural Record 1908 - 1952	Gutheim, Frederick [editor]	Architectural Record Books	1975
Building suburbia: green fields and urban growth, 1820-2000	Hayden, Dolores	Vintage Books	2004
Googie, Fifties Coffee Shop Architecture	Hess, Alan	Chronicle Books	1985
Frank Lloyd Wright Mid- century Modern	Hess, Alan and Weintraub, Alan	Rizzoli	2007
Architecture of the Sun: Los Angeles Modernism 1900-1970	Hines, Thomas S.	Rizzoli	2010
The International Style	Hitchcock, Henry Russell and Philip Johnson	W. W. Norton	1995
Art Deco Los Angeles	Hoye, Daniel	Los Angeles Conservancy	1988
Frank Lloyd Wright, a Life	Huxtable, Ada Louise	Penguin	2004
Gropius: An Illustrate Biography of the Creator of the Bauhaus	Isaacs, Reginald	Bulfinch Press	1991
Crabgrass Frontier: The Suburbanization of the United States	Jackson, Kenneth T	Oxford University Press	1987
Detached America: Building Houses in Postwar Suburbia	Jacobs, James A.	University of Virginia Press	2015
Title	Author	Publisher	Date
Ranch Homes: 1967 Your Home Booklets 24 Floor	Kennedy, Jeremy [others]	PM Associates LLC	2017

Plans digital restoration (Retro Relics in PR)			
In the Deco Style	Klein, Dan, McClelland, Nancy A., Halsam, Malcolm	Thames & Hudson	2003
Eames	Koenig, Gloria	Taschen	2005
Towards a New Architecture	Le Corbusier	Dover Publications	2014
Wright-Sized Houses: Frank Lloyd Wright's Solutions for Making Small Houses Feel Big	Maddex, Diane	Harry N. Abrams	2003
Michael Graves: Buildings and Projects: 1990-1994	Nichols, Karen, Lisa Burke and Patrick Burke [editors]	Rizzoli	1995
Modernism's Visible Hand: Architecture and Regulation in America (Buell Center Books in the History and Theory of American Architecture)	Osman, Michael	University of Minnesota	2018
Trousdale Estates: Midcentury to Modern in Beverly Hills	Price, Steven M.	Regan Arts	2017
Irving J. Gill, Architect 1870-1936	Rand, Marvin	Gibbs Smith Publisher	2006
Usonia New York, Building a Community with Frank Lloyd Wright	Reisley, Roland with John Timpane	Princeton Architectural Press	2001
Frank Lloyd Wright's Pope- Leighey House	Reiss, Steven M.	University of Virginia Press	2014
The Architecture of Alden B. Dow	Robinson, Sidney K.	Wayne State University Press	2014
Mies van der Rohe: A Critical Biography, New and Revised Edition	Schulze, Franz & Windhorst, Edward	University of Chicago	2012
Deco Landmarks, Art Deco Gems of Los Angeles	Schwartzman, Arnold	Chronicle Books	2005
194X: Architecture, Planning, and Consumer Culture on the American Home Front	Shanken, Andrew M.	University of Minnesota	2009
Case Study Houses	Smith, Elizabeth A. T.	Taschen	2009
Houses by Mail, a Guide to Houses from Sears, Roebuck and Company	Stevenson, Katherine Cole and Jandl, H. Ward	National Trust for Historic Preservation	1986
The Art Deco House	Tinniswood, Adrian	Watson Guptill	2002
Farnsworth House, Ludwig Mies van der Rohe	Vandenberg, Maritz	Phaidon	2003

Modernismo, Architecture and Design in Catalonia	various	Monacelli Press	2003
Prefabrication's 1958 Model Show	various		1958
Title	Author	Publisher	Date
Fallingwater	Waggoner, Lynda [ed], Little, Christopher [photographed by]	Rizzoli	2011
Le Corbusier: A Life	Weber, Nicholas Fox	Alfred A. Knopf	2008
Pop L.A.: Art and the City in the 1960s	Whiting, Cécile	University of California	2006
Washington Deco: Art Deco in the Nation's Capital	Wirz, Hans & Striner, Richard	Smithsonian	1984
Shaping a Nation, Twentieth-Century American Architecture and Its Makers	Wiseman, Carter	W. W. Norton	1998
From Bauhaus to Our House	Wolfe, Tom	Farrar, Straus and Giroux	1981
The Disappearing City	Wright, Frank Lloyd	William Farquhar Payson	1932
The Living City	Wright, Frank Lloyd	Bramhall House	1958
Three Cars in Every Garage: The Story of the Automobile Club in Southern California		Doubleday	1968