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United States Department of the Interior
National Park Service

National Register of Historic Places Multiple Property Documentation Form

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

X New Submission _____ Amended Submission

A. Name of Multiple Property Listing

Mid-Twentieth-Century Modern Residences in Connecticut, 1930 – 1979

B. Associated Historic Contexts

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

Modern Architecture Movement in the United States, 1920 – 1979

Mid-Twentieth Century Modern Residential Architecture in Connecticut, 1930– 1979

C. Form Prepared by

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D. Certification

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

SHPO 7-8-10

Signature and title of certifying official | Date

CCT / SHPO

State or Federal Agency or Tribal government

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

Signature of the Keeper 9/16/10 Date of Action

Table of Contents for Written Narrative

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

Table of Contents for Written Narrative

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Section number: E

SECTION E. Statement of Historic Contexts

I. Introduction

The multiple property nomination for Mid-Twentieth-Century Modern Residences in Connecticut, 1930–1979 establishes the historical themes, geographical scale, and chronological time frame for houses built in the Modern style throughout the State of Connecticut during a 50-year period. Two principal, related, and largely concurrent historic contexts trace the development of Modern architecture in the United States and mid-twentieth-century Modern residential architecture in Connecticut, as follows:

- Modern Architecture Movement in the United States, 1920–1979
- Mid-Twentieth-Century Modern Residential Architecture in Connecticut, 1930–1979

Significance Summary

Mid-twentieth-century Modern architecture in the United States radically changed definitions of building design and profoundly influenced postwar culture. The State of Connecticut occupied a pivotal role in this development. Connecticut experienced some of the earliest Modern houses designed outside of California, including the nation's first Modern country house built in 1932. From the mid-1940s to the late 1970s portions of the state, most notably the Town of New Canaan, provided the conditions for a remarkable incubation and concentrated expression of outstanding Modern residential buildings. These houses, many designed by notable and highly influential architects, commanded attention as groundbreaking statements on Modern architectural design and lifestyle. An early post-World War II creative social milieu of Modern architects, artists, and designers supported by progressive clients emerged and grew in these communities from a confluence of economic and political events, local institutions, and individual choices. As a result, Connecticut's unique contribution to the development of mid-twentieth-century Modern residential architecture in the United States was nearly unparalleled in scope and impact. While important individual examples and clusters of Modern houses exist elsewhere, only residences in few states including California, Illinois, and Florida received the same breadth and intensity of contemporary interest, analysis, documentation, and critical coverage as those in Connecticut. Currently more than 300 architect-designed mid-twentieth-century Modern houses have been identified as currently standing in Connecticut, and new houses are regularly added to the list. For these reasons, the historic context for the Mid-Twentieth-Century Modern Residences in Connecticut, 1930–1979 multiple property nomination possesses a national level of significance.

Definition of Historic Contexts

The time periods defined for the two historic contexts reflect the development and evolution of mid-twentieth-century Modern architecture in the United States and the trajectory of its residential expression within Connecticut. The Modern Architecture Movement in the United States, 1920–1979 begins in 1920, the decade when nineteenth-century American and European Modernist concerns with functionalism, technological innovation, and formal and organic abstracted design coalesced as a clearly identifiable style. It encompasses the earliest known presence and designs of European Modern architects and educators in the United States, which fostered an international exchange of influences and distillation of ideas that resulted in a nascent particularly American approach to Modern architecture by the late 1930s. A construction hiatus during World War II was followed by the vigorous and innovative initial postwar decades of American mid-century Modern architecture from the mid 1940s to the mid 1960s. Shifts in the Modern continuum emerged in the 1960s out of the diverging interests of individual architects and the reaction to mid-century Modernism, including the reintroduction of

classical and historical references. The end date of 1979 reflects both the late-decade completion of mid-twentieth-century Modern buildings by renowned architects and the dynamic interwoven transition of Modern architecture to new formal sensibilities that included a return to earlier forms of Modernism and a historicist approach referred to as Postmodern.[1]

The Mid-Twentieth-Century Modern Residential Architecture in Connecticut, 1930–1979 historic context chronology corresponds to the events and patterns of activities associated with the mid-century Modern residences theme. It begins with 1930 shortly before construction of Sun Terrace (1932), the earliest known major Modern house in Connecticut. The earliest houses built in the 1930s at scattered locations in Connecticut set the stage for the upsurge in construction of Modern houses in Fairfield, Litchfield, and New Haven counties from the late 1940s through the mid 1970s. The end date of 1979 encompasses the latest known significant mid-twentieth-century Modern residential works in the state, notably Marcel Breuer's Gagarin House II and Stillman House III (both 1973–1974), and relates to the strong shift in favor of the Postmodern style. The extension of the time period up to 1979 also reflects the extraordinary significance of the mid-twentieth-century Modern architecture period in Connecticut as major architects continued to design iconic and well-known Modern houses into the late 1970s. Further discussion and justification of the extended end date under Criteria Consideration G for properties that are less than 50 years old is in the final section of this historic context.

Mid-Twentieth-Century Modern Houses in Connecticut Listed in the National Register

One National Historic Landmark (NHL) and seven additional individual properties in four Connecticut communities are listed in the National Register. One individual property and one historic district containing 48 contributing buildings in a fifth community are pending listing:

New Canaan:
Philip Johnson's Glass House, NHL, 1977
Landis Gores House, 2002
Richard and Geraldine Hodgson House, 2004
Noyes House, 2008

New Hartford:
Sun Terrace, 1978

New London:
Winslow Ames House, 1995
Steel House at Mohegan Avenue, 2009

Norwalk:
Allen House, 2010
Village Creek Historic District, 2010

Orange:
Henry F. Miller House, 2010

[1] The term "Mid-Century Modern" is generally held to have been first used and defined as 1933 to 1965 in *Mid-Century Modern: Furniture of the 1950s* (Greenberg 1984). Practitioners and scholars have extended the mid-twentieth-century Modern period for architecture through the 1970s, although there is lack of agreement on a specific end date for the overall modern era, or even that it ever ended (e.g., Neumann 2001). The dates used in this MPDF roughly correspond to DOCOMOMO US's definition of the Modern period as "roughly the 1920s to the 1970s" (Docomomo n.d.).

II. Modern Architecture Movement in the United States, 1920–1979

Overview of Modern Architecture in the United States

The understanding and evaluation of mid-twentieth-century Modern residential architecture in Connecticut is necessarily set within the overall history and design philosophy of Modern architecture in the United States, and its American and European mid-nineteenth-century antecedents. Modernism coalesced as an identifiable style in the 1920s and signaled a seismic shift in design within architecture and related arts that continues to inform design ideals and our experience of the built environment. An unprecedented and extraordinary sequence of international, national, and local political, social, and design events catalyzed the modern movement during this time. Modernism established a radically new aesthetic that broke with the historical past and advocated design based on function, economy, efficiency, simplicity, planar forms, new technologies and materials, and an intimate relationship with site and nature.

The formative decades of mid-twentieth-century Modernism were marked in the 1920s and 1930s by the first presence and designs of European Modern architects in the United States. Some Americans became familiar with the emerging European Modern architecture through travel and visits to the Bauhaus, the influential Modern design school that operated in Germany from 1919 to 1933. A few European architects came to the United States, drawn in part by Frank Lloyd Wright. When European architects and designers fled Nazi Germany in the late 1930s, key figures became department heads and teachers at major American architecture and design schools and began training students. From the 1940s through the early 1960s, mid-twentieth-century Modern buildings designed by the European émigré architects, their students, and traditionally trained American Modern architects appeared in the American landscape, often in concentrations at specific locations. Designs reflected Frank Lloyd Wright's pioneering emphasis on open plan, horizontality, and dialogue with the landscape and explored the possibilities inherent in prefabricated manufactured building units. These developments occurred in the period of high national optimism and wealth after World War II and advanced vigorously in the late 1940s through mid-1960s. The resulting mid-twentieth-century Modern architecture displayed multiple design currents that shared a spirit of freshness and innovation.

Many of the connections among architects and between designers and clients grew from and created social and professional networks that had profound impacts on particular communities. These locations included New Canaan, the towns and coast around New Haven and Yale University, and the Litchfield Hills in Connecticut; the Boston area and Outer Cape Cod in Massachusetts; Los Angeles and San Francisco in California; the greater Chicago area; parts of Michigan; Columbus, Indiana; and areas of Florida. In the mid-1960s mid-twentieth-century Modern architecture's appeal began to fade due to negative public response and a shift in design interests. The widespread use of minimalist, open plan designs and inexpensive construction technology and materials produced a proliferation of unornamented, rectilinear modern buildings and drastic urban renewal plans of varying quality that did not necessarily embody fundamental mid-twentieth-century Modern philosophies. By the late 1970s and early 1980s expressionist and historically referenced designs became increasingly prevalent as Postmodernism rose in prominence.

Before and During World War II, 1920–1945

The roots of Modernism in the United States reach back to the nineteenth century in this country, Europe, and Great Britain. The legacy of the Industrial Revolution's technological transformation of building materials provided new resources such as dimensional lumber, steel, iron, and concrete. The Arts and Crafts movement redefined the relationship between design and production, rejecting aesthetically poor machine manufacturing in favor of more pleasing and authentic craft and handwork fabrication. These threads came together by the 1890s and generated new architectural forms, engineering structures, and naturalistic decorative modes. The English architect Charles F.A. Voysey (1857–1941)

designed simplified and horizontal houses with concentrations of fenestration. In Europe, engineer Gustave Eiffel's (1832–1923) Eiffel Tower (1887-1889) in Paris celebrated all-metal construction. The sinuous ornament that defined the Art Nouveau spread from Victor Horta (1861–1947) in Brussels in 1892, to Hector Guimard (1867–1942) in France, and were recast as the restrained and abstracted renditions of Charles Rennie Mackintosh (1868–1928) in Scotland (Hitchcock 1971:376–410).

Early Modernism in the United States emerged concurrently during the late nineteenth century through three key, forward-thinking, and highly influential American architects. Each developed an individual, markedly fresh, and innovative approach to design, technology, materials, and relationship to site that was distinct from traditional building designs:

- Henry Hobson Richardson (1838–1886) emphasized clarity of form, attention to function, and minimization of overt specific historical references in massive masonry buildings built mostly in the Northeast and Midwest. His designs created the first truly American style, termed Richardsonian Romanesque.

- Louis Sullivan (1856–1924) pioneered the use of steel frame and curtain wall technology for high rise buildings and developed a simplified form comprised of base, shaft, and pediment along with a unique floral decorative idiom for buildings constructed in Chicago and the Midwest. Sullivan's interest in creating a new architecture of democracy manifested in rational designs with no historical precedent that while modern in scope also embraced ornament. Sullivan originated the phrase "form follows function" and was a leading designer of the innovative tall buildings that defined the "Chicago School" or Commercial style.

- Frank Lloyd Wright (1867–1959) oversaw all the residential work in the Chicago firm of Adler & Sullivan, before embarking on his own highly influential practice. Wright was responsible for cultivating an American modernist aesthetic, particularly in residential design, during the first half of the twentieth century with a legacy that continues today. His organic, sculptural Prairie Style houses constructed between 1900 and 1917 displayed low horizontal massing, the replacement of ornamentation with form, deep overhangs, open floor plans, and integration with the natural landscape. Publications presented his designs to a wide audience and inspired several modernist European architects to visit his Taliesin studio and move to the United States in the 1920s. At that time Wright had already nationally introduced some of the tenets of Modernism. He continued to disseminate his compelling ideas beyond the middle of the century through his designs, publications, and training of numerous architectural apprentices.

Modernism emerged in Europe in the early decades of the twentieth century primarily as a response to interest in using technology and architectural design solutions to address social issues of housing and the quality of the built environment. The earliest Modernists, particularly in Europe, embraced the machine aesthetic and emphasized the intellectual connection between the mode of production, function, and physical form. The widely influential European designers, a few of whom are mentioned here as key examples, produced a range of buildings that they declared to be rational and objective solutions to specific design challenges. Peter Behrens (1868–1940) in Germany designed the 1910 AEG Turbine Factory and was the teacher of Ludwig Mies van der Rohe (1886–1969), Charles-Edouard Jeanneret (known as Le Corbusier) (1887–1965), Adolph Meyer (1868–1949), and Walter Gropius (1883–1969). Le Corbusier (1887–1965), was a Swiss national whose prominent works included the 1923 publication "Vers un architecture" and the influential Villa Savoye (1929-30). Gerrit Rietveld (1888–1964) and J. J. P. Oud (1890–1963) were proponents of de Stijl in Holland.

The opening of the Bauhaus school in Germany in 1919 crystallized the ideas current across Europe in a new design cooperative and teaching center for architecture and the visual arts. The Bauhaus brought together designers and artists in a novel, anti-academic, and experiential school based on the idea of merging technical knowledge and artistic aspiration in

a workshop-based educational model. The first head, Walter Gropius, expounded in 1919 on a "new unity" defined as viewing all creative effort "as inseparable components of a new architecture" (quoted in Bergdoll and Dickerman 2009:10). The three Bauhaus directors were major international intellectual figures, starting with Walter Gropius from 1919 to1928, followed by Hannes Meyer (1889–1954) from 1928 to1930, and finally Ludwig Mies van der Rohe from 1930 to 1933. The Bauhaus philosophy emphasized architectural function, structural efficiency, and ways to provide inexpensive housing and solve social problems. However, over time the school and its students manifested the divergent views of its three leaders. Gropius's Bauhaus at Dessau (1925-1926) was among the buildings visited by American enthusiasts of Modern architecture. During this period Gropius toured the United States in 1928 and Mies van der Rohe designed the seminal Modernist building known as the "Barcelona Pavilion," the German Pavilion at the 1929 International Exposition in Barcelona, Spain. Under pressure from Nazi Germany, the Bauhaus closed in 1933.

Modernism in the United States before World War II was shaped initially by a handful of young European architect immigrants beginning in the 1920s. They were in part drawn by the designs of pioneering American architect Frank Lloyd Wright, which they knew through publications showing his open plans and functional buildings layouts. Most of them worked at or passed through Taliesin upon arrival in this country:

- Rudolf M. Schindler (1887–1953), an Austrian, came to Chicago in 1914, made connections with Frank Lloyd Wright and moved to Los Angeles in 1920 where he oversaw construction of the Wright's Barnsdall House (Hollyhock House) before setting up his practice based on Modernist principles.
- William E. Lescaze (1896–1929) came from Switzerland and established a practice in New York in 1923. Under a brief partnership with George Howe designed the Philadelphia Savings Fund Society Building (1932) in Philadelphia, which is regarded as the first International Style commercial building in the United States that produced a number of important residential and commercial buildings.
- Richard Neutra, an Austrian contemporary of Schindler, delayed his arrival in the United States until 1923 after World War I, briefly worked for Frank Lloyd Wright, and then practiced in Los Angeles. He specialized in luxurious houses and developing a detailed understanding of the client's program needs.
- Eliel Saarinen (1873–1950), architect and designer, was the first major Scandinavian designer to come to the United States. Arriving from Finland to the Chicago area in 1923, he designed the Cranbrook Academy of Art campus in Bloomfield Hills (near Detroit), Michigan in 1925 and was appointed president of Cranbrook in 1932, where his students included Ray Eames (1912–1988), Charles Eames (1907–1978) and other noted designers.

Trends toward new approaches to building concepts and structural systems were also already present in the United States. From about 1910 to the early 1940s, a few American architects, in addition to Wright, were designing in one of the several modern structural or aesthetic idioms. Each made a significant contribution to the development of technology and design in mid-twentieth century Modernism:

- Albert Kahn (1869–1942) was born in Germany and raised in Detroit, Michigan where he formed his architectural practice. Kahn's prolific firm pioneered in the use of reinforced concrete and other innovative approaches in the industrial design including the Ford Motor Company's Highland Park (1909–1910) and River Rouge (1917-1928) plants in Michigan.
- Raymond Hood (1881–1934) furthered the development of modern highrise buildings through his designs including the neo-Gothic Chicago Tribune Building (1924) in Chicago and Art Deco Rockefeller Center (1933-1937) in New York City.
- George Howe (1886–1955), a Beaux-Arts trained architect from Massachusetts, and William Lescaze designed the ground-breaking PSFS Building (1932) in Philadelphia. Howe later collaborated with other notable

Modern architects in Pennsylvania and was chairman of the architecture department at Yale University from 1950 to 1954.

- Hugh Ferriss (1889–1962), a delineator not an architect in New York City, helped shape the image of contemporary architecture and the city through his evocative drawings.
- John Lautner (1911–1994), born in Marquette Michigan, worked for Frank Lloyd Wright from 1933 to 1939 in California before completing the well-received Lautner House (1940) and starting his own practice in Los Angeles.
- Eero Saarinen (1910–1961), the son of Eliel Saarinen (see below), was born in Finland and raised at Cranbook, where he studied with architects and designers Ray and Charles Eames and Florence Knoll Bassett (b. 1917). He attended Yale University, later taught at Yale University and Cranbook, and was a major figure in mid-century Modern corporate, institutional, and residential architecture.

The first Modern houses in the United States were designed by European trained architects and built in the 1920s on the West Coast: Schindler's R. M. Schindler House, Los Angeles, CA (1922) and Lovell Beach House, Newport Beach, CA (1926), and Neutra's Lovell Health House, Los Angeles, CA (1929). European and American Modernist architects built a few early experimental houses on the East Coast, but the full impact of Modernism was largely delayed until the late 1940s after World War II.[2] Initial expressions in the late 1920s and 1930s tended to exhibit the streamlined machine aesthetic hallmarks of the International style. One of the first Modern houses in New England was William Lescaze's Sun Terrace/Field House of 1929-1932 in New Hartford, CT (National Register listed, 1978) (Taylor 1978). Approximately two dozen houses erected in the 1930s and early 1940s are known in Connecticut and are discussed below.

Near Cambridge, Massachusetts, later the New England hub of Bauhaus philosophy, Eleanor Raymond (1888–1989) designed a house for her sister, the Raymond House in Belmont, MA (1931) following a visit to the German school in 1929 (Allaback 2008). Long Island, New York became a showplace for Modern beach houses starting with Hollywood executive Glendon Allvine's 1928 house designed by his own architect, Warren Matthews (Gordon 2001:27).

The watershed of Modern architecture's development in the United States occurred with the Museum of Modern Art's (MoMA) 1932 exhibit of European and American buildings, entitled "The International Style: Architecture since 1922" in New York City. Noted architectural historian Henry-Russell Hitchcock (1903–1987) and Philip Johnson (1906–2005), then head of MoMA's Department of Architecture and Design but not yet an architect, co-directed the exhibit. This early exhibit put on shortly after MoMA's founding in 1929 initiated an ongoing mission for the museum to educate the public about Modern architecture. The catalog defined the term "International Style" and served as a manifesto of Modernism calling for the expression of volume bounded by planes rather than mass, balance instead of symmetry, and the elimination of ornament (Hitchcock and Johnson 1932). Featured buildings included Walter Gropius's Bauhaus School in Weimar (1926), Ludwig Mies van der Rohe's Barcelona Pavilion (1929), and Le Corbusier's Villa Savoye in Poissy-sur-Seine (1929-1930).

The Bauhaus closure in 1933 created a diaspora of designers and intellectuals who fled the oppression of Nazi Germany. Among the first émigrés to the United States were Bauhaus-trained textile artist Anni Albers (1899–1994) and artist and educator Josef Albers (1888–1976), who were invited by Philip Johnson to teach at the experimental Black Mountain College in North Carolina. By the late 1930s, hundreds of influential European intellectuals, artists, architects, engineers, and designers arrived in America, including architects Walter Gropius, Marcel Breuer, and Hans Bayer, and artists Vassily Kandinsky, Lazlo Moholy-Nagy, Paul Klee, and Gyorgy Kepes.

[2] As the geographic focus of this historic context narrative is the State of Connecticut, specific building examples will henceforth be restricted primarily to those located in the New England and New York regions.

In 1937, American architectural education and design shifted dramatically from the traditional Beaux–Arts training to the Bauhaus Modern canon and ideals. At the invitation of Joseph Hudnut, Walter Gropius became director of the newly founded (1936) Harvard University's Graduate School of Design (GSD) in Cambridge, Massachusetts, and asked Marcel Breuer, noted furniture designer and architect to join him. In Chicago, Ludwig Mies van der Rohe headed the architecture school at the Illinois Institute of Technology (IIT), and Lazlo Moholy-Nagy founded the Illinois Institute of Design (later renamed the New Bauhaus). Other strains of European Modernism reached the United States through architects such as Chechen-born British modern architect Serge Chermayeff (1900–1996) who left a successful practice in 1940 to immigrate to the United States. Chermayeff taught at the Chicago Institute of Design, Harvard GSD, the Massachusetts Institute of Technology (MIT), and Yale University. Alvar Aalto (1898–1976), considered a father of Finnish Modernism, was instrumental in bringing Scandinavian design ideas to the United States. Although he did not relocate to this country he was influential as a visiting teacher at MIT starting in 1941 and through his designs for the Finnish Pavilion at New York's World's Fair (1939) and MIT's Baker House residential dormitory (1948) in Cambridge, MA.

The Bauhaus vision of a new architecture became fully manifest in the United States with five houses in eastern Massachusetts designed by Gropius and Breuer that layered Bauhaus sensibility with native New England materials and sites. Gropius built his the first pure European Modern residence in New England for his family, the Walter Gropius House, in Lincoln (1938). Gropius and Breuer established a partnership in Cambridge from 1937 to 1946 and together designed the Hagerty House on the beach in Cohasset (1939) and Henry G. Chamberlain House in Wayland (1940). Breuer designed the Breuer House I (1938-1939) and Ford House (1939) both in Lincoln. One of the initial students inspired by Gropius and Breuer at Harvard was Jack Phillips, who had trained as painter and lithographer, knew early European Modernist architecture, and had studied at Harvard in 1937. He began building Modernist buildings such as "Paper Palace" of Homasote in the late 1930s on outer Cape Cod, Massachusetts (Cape Cod Modern House Trust 2010).

Mid-twentieth-century Modern architecture in the United States evolved from the juncture and cross fertilization of European Modernism with certain elements of contemporary American design, most notably the designs of master architect Frank Lloyd Wright. By 1940, it was recognized that American Modern architecture was partially derived from, but had already parted ways with, international functionalism. The European International style or "Functionalism" promoted strictly rational, intellectual, and revolutionary designs relying on a refined machine aesthetic to break time-honored habits. Buildings exhibited new rectilinear forms, materials, and kinds of construction and were typically executed in steel and concrete with smooth white walls, flat roofs, and ribbon windows. In contrast, Frank Lloyd Wright's pioneering open plans and organic designs using traditional materials and bands of windows to integrate indoors and outdoors were Modern without the austerity of the machine aesthetic. His individual vision of architecture and modern life significantly contributed to mid-twentieth century Modern design through his many houses designed in the horizontal Prairie Style between 1900 and 1917 and important commissions such as the Robie House (1909) and the dramatic Fallingwater (1935). Wright's Usonian houses from the Jacobs House of 1937 through the 1950s, which were the predecessors of the popular Ranch House, in particular focused on providing democratic, high quality design for modest budgets. Wright's investigation of open plans, horizontality, and connections between the interior of the house and the exterior landscape created an organic entity that inspired generations of architects. In 1940, when MoMA in New York City put on "The Work of Frank Lloyd Wright," a major retrospective exhibition of his work, Wright had been actively designing houses and writing for 50 years.

America's native vernacular buildings also provided a legacy of straightforward, economical, and comfortable forms of local materials sympathetic to regional design habits that informed Modern designs. The structural and functional solutions displayed in industrial architecture and in skyscrapers and commercial buildings, along with advances in mass

production and standardization offered the potential for practical, honest, and cost-effective American Modern architecture (McAndrew 1940).

Widespread American popular engagement with Modern design and ongoing critical assessment expanded through exhibits that provided physical examples and publications that offered analysis and images. In 1938, New York's MoMA reprised its pivotal 1932 exhibit with a new presentation entitled "Bauhaus." The 1933 Chicago World's Fair showcased a "House of Tomorrow" Century of Progress Exposition displaying a Masonite House. In 1939, the New York World's Fair presented an array of Modernist expressions and introduced the Swedish and Danish Modern design style through exhibits like the "House of Ideas" designed by Edward Durell Stone (1902–1978) with furnishings by renowned Danish designer Jens Risom. Demonstration homes included "The House that Chemistry Built," "The Town of Tomorrow Design," and a house of glass (Jester 1995:183; Ryan n.d.). Books such as Henry Russell-Hitchcock's *Modern Architecture, Romanticism and Reintegration* of 1929, *The Modern House in America* by Katherine Morrow Ford and James Ford of 1940, and *Time, Space and Architecture* by Sigfried Gideon of 1941, helped disseminate ideas. Architectural historian Hitchcock's influential scholarship and prolific writings defined architectural Modernism in the United States as a style in contrast to the contemporary European emphasis on technology, function, and social underpinnings. Gideon's conviction that the Modern movement reflected the logical outcome of a linear historical development supported and celebrated the efforts of Modern architects. Journals and shelter magazines including *Architectural Forum, Progressive Architecture, Architectural Record, American Architect and Building News,* and *Woman's Day* published articles and photographs reaching a wide audience. In 1940 MoMA published a guide to Modern architecture in the Northeast states that listed and described buildings, mostly houses, with owner and contact information and served as a self-guided automobile tour (McAndrew 1940).

United States involvement in World War II between 1941 and 1945 slowed the Modernist design trajectory, as almost no civilian building occurred. However, the hiatus provided an incubation period for architects and advocates to think about and study Modern design and to promote Modernism as the appropriate style for postwar buildings in popular and professional publications. The military industrial complex grew and produced a phenomenal range of technical innovations in materials and structures that translated to mainstream architecture and design in the following decades. Peacetime also created a psychological opening for Modernism which augmented the general sense of well-being and belief that the world could be made newer and better.

Post World War II in the United States, 1945–1965

Modern Life

After World War II a period of accelerating economic activity generated a buoyant confidence and fostered a relatively affluent American society with an exponential increase in the number and variety of consumer goods. The period between the late 1940s and the 1960s in the United States has been described as a "quarter century of sustained growth at the highest rates in recorded history" and as "the greatest prosperity the world has ever known" (Patterson 1996:61). The demand for housing and the Federal programs supporting integration of veterans into the country's social and economic fabric, such as low interest mortgage loan programs, encouraged community development based on the concept of the single-family suburban house and automobile transportation. The longstanding belief in American culture that progress is vital and beneficial coalesced with the potential of technology and research to create a vision for an improved modern way of life that aligned with Modern architecture's design aspirations.

Post-World War II American domestic culture developed out of an unprecedented emphasis on family life, individuality, and the ideal that the average citizens, especially returning veterans, each deserved their own private utopia in the form of

an affordable single-family suburban house with a comfortable amount of interior and exterior space for enjoyment (Wright 1989:253). This renewed interest in an enhanced quality of life, paired with the development of innovative new construction materials and mechanized conveniences, revolutionized preferences for residential design. By the early 1960s, many contemporary homes incorporated mid-twentieth-century Modern inspired design concepts such as of open-plan living spaces, picture windows or glazed walls with views of a natural or suburban setting, and the placement of rooms to promote privacy and efficient child rearing. Bedrooms and play areas were located in specific zones, separate from a spacious living room and kitchens typically defined the center of the house, to provide efficient access to every domestic work space. Views from the kitchen often allowed observation of the yard and communication with the main dining and living rooms. The emergence of consumer marketing targeted at the "professional housewife" and related growth of the industrial and interior design professions amplified the popularity of the Modern aesthetic and desire for mechanized household appliances (Massey 1990:163–165).

Residential and corporate growth expanded as a new, modern culture informed by "technological media, machine production, global communication, and postwar politics" developed (Bergdoll and Dickerman 2009). In the United States, major corporations and educational institutions in California, Connecticut, Massachusetts, Michigan, Illinois, and elsewhere hired mid-twentieth-century Modern architects for large and highly visible commissions.

At the same time, the relationship between architects and residential clients became more fluid and democratic. Modernists claimed that "The new client of this new architecture is the ordinary citizen" (Eckhardt 1961:6). Modern technologies like electricity, time-saving kitchens, air conditioning, hot water or forced air heat, plastics, and the automobile were within reach for many Americans and allowed a conscious celebration of a simplified modern life. Patterns of work and leisure were changing, and the mass retreat from cities that expanded the suburbs was connected to mid-twentieth-century Modern architecture and the desire to be close to nature (Scully 1965).

Single-Family Houses

The single-family house held a position of great importance in traditional and postwar American culture. In contrast to Europe, where a sense of the community's responsibility to provide societal housing prevailed, America's concept of community revered the freestanding, land-rooted residence that represented the fundamental ideas of individuality, freedom, and personal development. The booming prosperity of the postwar period, along with Federal Housing Administration and Veterans Administration generous mortgage programs, drove a phenomenal growth of new-single family homes, mostly in the suburbs. In 1944 construction started on 114,000 single-family homes, and by 1950 the number of home starts had skyrocketed to 1.5 million. Between 1945 and 1955 approximately 15 million housing units were constructed in the United States, and the number of homeowners increased from 50 to 60 percent. Most were primary homes, but automobile-based regional tourism and the wish for escape, leisure, sport, nature, and freedom motivated nearly one-quarter of Americans to also own, rent, or share a vacation home by 1967 (Patterson 1996:71–72; Gordon 2001:76).

The design of mid-twentieth-century Modern residential architecture in the New England states has been viewed since the 1940s as a regionalist response to European principles and iconic forms translated into local building traditions of wood frame structure, vertical board sheathing, natural fieldstone, and occasional sloping roofs (Blake 1959). The Modern approach to nature, combined with new building materials and systems technologies, allowed New Englanders to embrace the natural landscape year round, even during the relatively harsh winter (Fixler 2002).

The dialogue between home-owning consumers' demand for new products and industry's marketing of them played out in exhibits and expositions. The popularity of a prefabricated all-metal demonstration house by the Lustron Company inspired MoMA's model house project for Marcel Breuer's House in the Museum Garden in 1949, which drew record

crowds and Gregory Ain's Exhibition House in 1950 (Bergdoll and Christensen 2008). The New York World's Fair of 1964 served as a showcase of mid-twentieth-century American culture and technology and included the New York State Pavilion by Philip Johnson with Richard Foster. George Nelson and Henry Wright's *Tomorrow's House* of 1945 and architect and prefabrication advocate Carl Koch's *At Home with Tomorrow* of 1958 were among many books published that inspired prospective homebuyers. Leading trade journals, shelter magazines, and newspapers such as *Architectural Forum, Architectural Record, House and Garden, House Beautiful, Holiday, American Home, Woman's Day,* and *Life* publicized new work and sponsored design development.

In 1945 John Entenza, editor of *Arts & Architecture* magazine, initiated a Case Study Houses program that commissioned major architects to design and build affordable houses for average Americans that used new techniques and materials, could be duplicated, and embodied postwar living (McCoy 1977). Charles Eames, Pierre Koenig, Richard Neutra, Raphael Soriano, and others participated with projects built primarily in California and the West until 1962. Approximately 400,000 visitors to the demonstration houses were shown how good designs for single-family could be developed using inexpensive materials. Other magazines followed suit with a plethora of programs over the following decades.

Two iconic mid-twentieth-century Modern residential buildings in America were built on the East Coast and in the Midwest in the mid-1940s. Philip Johnson completed the Glass House in New Canaan, CT (1945-1949) as his weekend home, a glass box set on the ground and pierced with an off-center brick chimney column. Johnson studied classics and philosophy at Harvard and met Mies van der Rohe and other European Modernists while traveling in Europe during 1928 through 1930. He was an early enthusiast and highly influential proponent of Modern architecture and became the first director of Department of Architecture at MoMA in 1930. He returned to Harvard in 1940 to study under Walter Gropius and Marcel Breuer and matriculated with a Bachelor of Architecture degree in 1943. His long career included an affiliation with Mies van der Rohe on the design of the Seagram Building (1954-1958) in New York, as well as numerous Modern architectural landmarks. He maintained close association with MoMA and resumed his earlier post there from 1946 to 1954 before opening his own design firm. Ludwig Mies van der Rohe designed the Farnsworth House in Plano, IL (1946-1952) as a vacation home for Dr. Edith Farnsworth. Each building asserted a radically new statement about the definition of the "house" conceived as a "machine in a garden" that co-existed with but was independent of the landscape (Fixler 2002; Marx 1964).

Mid-twentieth-century Modern architects did not adhere to a completely unified theoretical underpinning, and postwar iterations of the Modern sensibility varied widely (Goldhagen in Neumann 2001). Some Modern architects emphasized social responsibility in design as advocated by Gropius. Others were inspired by the formalism and beauty and elegance of exposed structure that interested Mies van der Rohe and Johnson. Either directly or indirectly most architects were influenced by ongoing and enduring legacy of the organically evolved American home as defined by Wright. Many architects investigated the possibilities for using technology to discover efficiency and affordability in modular or prefabricated houses, and for a few it became their sole focus. Shifts in the overall trends of Modernism and in the designs of many individual architects are apparent through the course of their careers.

In the New York area, MoMA continued its crusade to educate the public about Modern design through exhibits and publications. While the enthusiasm for Modern architecture and design that surged in the United States starting in the mid-1940s was not universal, it proliferated in the print media, several pivotal architecture schools, and in influential pockets of the emerging profession and its clientele. However, despite extensive publicity, and publication in scores of shelter magazines and professional journals, the overwhelming majority of Americans clung to familiar house forms. The large number of traditionally-based, simple and modest suburban house styles included the classic colonial Cape Cod house promoted by Massachusetts architect Royal Barry Wills (1895–1962) and the Spanish Colonial ranch house re-interpreted by California architect Cliff May (1909–1989) as well as other less common types. Modernism did influence traditionally

inspired houses through the use of modern technologies and materials, the introduction of new house types such as the split-level and ranch, and the increasing use of open floor plans. One significant impediment to the wider spread of Modern residential designs during the mid-twentieth century was the quiet opposition of skeptical building officials and lenders. Obtaining a building permit or a mortgage for a mid-twentieth-century Modern design residence was often notoriously difficult. The execution of Modern houses also required some flexibility on the part of builders in their willingness to use non-traditional materials, methods, and designs. However, some builders specialized in Modern construction, both unique and prefabricated designs, and a number combined construction with real estate development.

Prefabricated Houses

The huge post-World War II demand for housing fueled many efforts to design and mass-produce prefabricated houses in the 1940s and 1950s. In the mid-1930s, several American companies already offered prefabricated housing kits of factory parts and/or reproducible designs in a variety of materials, such as the popular Sears Roebuck & Co. Houses by Mail and Aladdin Homes. After the war, the concept of manufactured housing was enthusiastically promoted by many architects and critics to address the nation's housing shortage. The July 1944 issue of *Arts and Architecture* magazine published an essay in favor of modern prefabrication. The increasing availability of relatively inexpensive mass-produced materials and new building and manufacturing technologies, as well as the creation of a reliable distribution system supported by the newly constructed interstate highways and the newly standardized trucking industry, also encouraged the development of prefabricated designs (Walker Art Center 2010).

Many notable architects developed prefabricated designs as early exercises. In 1942, Marcel Breuer, who had a long-standing interest in industrial production, proposed two prefabricated, demountable building types intended as assembly-line products: the "Yankee Portables" and the "Plas-2-Point" (Blake 1949:80). The Charles and Ray Eames Case Study House of 1949 in Pacific Palisades, California, was designed to use easily available standard steel frame, glass, and metal panel materials. One of the earliest, but briefly successful prefab concepts, the Lustron House, was developed in the Midwest by the Swedish-born engineer, inventor, and entrepreneur Carl Strandlund and used porcelain enameled-steel panels as component parts. During its short existence from 1947 to 1950 the company rejected initial concepts incorporating Modern elements in favor of more traditional designs with mass appeal modeled after a small ranch (www.lustronpreservation.org; Vairo 2009). Lustron houses therefore have a different historic context than the mid-twentieth-century Modern residences.

Several Boston-area architects created their own prefabricated building systems that were advertised in professional and popular magazines nationwide and saw varying degrees of commercial success. Companies like John Bemis' Acorn Structures and Carl Koch's Techbuilt Inc. offered affordable products such as the "vacation house in a hurry" costing less than $20,000 and the "Nutshell" prefab vacation home for a mere $4,000 (Gordon 2001:119). Other New England regional prefabricated companies included Core Houses started by Charles Cuetara and Deck Houses established by William Berkes.

Koch (1912–1998) received his architecture degree from the Harvard GSD in 1937, the same year Gropius and Breuer arrived. He focused his career on designing affordable housing for American families, eventually becoming known as the "Grandfather of Prefab." Koch's Techbuilt houses minimized construction and material costs by adjusting the depth of the foundation and raising the height of roof kneewalls to transform traditionally underutilized basement and attic spaces into the main floors of the house. Techbuilt houses are constructed with a long, rectangular, gable-roofed form, often on sloped sites that allow for walk-out basements and expansive glazing on the gable ends. Koch typically centered the main entrance of Techbuilt houses on one of the long sides of the building, to provide easy access to a central stairway between both

levels. The Lustron Corporation hired Carl Koch in 1949 to design a luxury house, but it was not one of the most popular designs (Wolfe and Garfield 1989).

The Techbuilt construction system consisted of a standardized post-and-beam frame variant, concrete block foundation, and modular wall panels composed of wood framing members sandwiched between sheets of plywood. This system incorporates windows of the same dimensions as the standard wall panels so that the model designs could be easily customized through the flexible placement of fenestration within the overall grid. Additional customization was achieved by flipping the plan or changing the orientation of the building on the site. The innovative Techbuilt house was advertised as a design for the expression of individual family living requirements and proved to be Koch's most commercially and critically successful project (Techbuilt n.d.). More than 3,000 Techbuilt house kits were sold in the United States before 1963 (Koch and Lewis 1958; NTHP 2010).

Unification of the Arts

The Bauhaus educational model applied the long tradition of craft guilds that existed in Europe and had been the focus of the nineteenth-century English Arts and Crafts movement to unification of all the design arts within Modern architecture. As a result Modern architects, especially those schooled in the European tradition, had multi-disciplinary training in other Modern design fields including military and industrial design, landscape architecture, interior design, textiles, lighting, furniture, graphic design, painting, sculpture, and photography. The crossover relationship between architecture, interior design, and furnishings was exemplified in Mies van der Rohe's and Breuer's earlier Bauhaus furniture. Close collaboration continued in the furniture design affiliations of George Nelson, Charles and Ray Eames, and Isamu Noguchi with the Herman Miller company in Michigan, and Eero Saarinen, Le Corbusier, Ludwig Mies van der Rohe, and Marcel Breuer with the Knoll company of New York. In Cambridge, Benjamin Thompson of The Architectural Collaborative founded Design Research, a home furnishings design and import business. Paintings, sculpture, textiles, lighting, and electrical appliances all fit into the design schemes. Richard Kelly (1910–1917) was among the pioneers in the field of lighting design in architecture and collaborated with the most important architects and designers of the period including Mies van der Rohe, Phillip Johnson, Eero Saarinen, and Louis Kahn. A number of architects developed early and longstanding successful industrial design practices including Victor Civkin with General Electric and Eliot Noyes with IBM and Mobil.

The postwar proliferation of Modern architecture's holistic design ideas in executed projects led the United States to the forefront of the international interior design field. MoMA's 1947 Modern interior design exhibit "Modern Rooms of the Last Fifty Years" curated by Edgar Kauffman traced the Modern interior in architect-designed residential examples from William Morris through the Bauhaus to Frank Lloyd Wright (Massey 1990:148). The subsequent book of 1953 based on the show acknowledged people's curiosity and the need for education with the title *What is Modern Interior Design?*

The completion of Philip Johnson's Glass House (1949), with lighting design by Richard Kelly, and Ludwig Mies van der Rohe's Farnsworth House (1950) demonstrated the complete integration of inside and outside, and furthered the airy and open design approach to interior design. Among the architect-designers active in the mid-century period who specialized in interiors were Alexander Girard (1907–1993) and Russel Wright (1904–1976) whose work involved built-in furniture, screens and ramps, fur rugs, and the use of natural light and plants, as well as new materials such as vinyl, melamine, and spun aluminum. Girard designed textiles, graphics, furniture, and exhibitions and amassed one of the largest collections of cross-cultural folk art in the world.

Publicity and Education

Design professionals, critics, and the general public immediately recognized the importance and impact of the mid-twentieth-century Modern movement on architecture, design, and lifestyle. In addition, Modernists were self-reflective in the sense that "Modern design was conscious of being modern" (Docomomo n.d.). This recognition manifested nationally, regionally, and locally in a variety of venues and sources. Museum exhibits such as those held at MoMA and house tours such as the multi-site tours in held New Canaan starting in 1949 and later sprang up elsewhere allowed the public to learn about and directly experience Modern architecture. Philip Johnson's Glass House in New Canaan caused an immediate nationwide sensation and attracted a steady stream of the curious public and admiring students from its construction in 1945–1949 to the present day. Trade and popular magazine sponsorship of architects to address specific design problems encouraged and highlighted experimentation. *Arts & Architecture*'s Case Study Houses from 1945 to 1962 and *Woman's Day Magazine* competition were among a wide variety of such endeavors. Award programs and annual compilations of notable buildings by the American Institute of Architects, *Architectural Forum, Architectural Record, Life,* and others recognized and publicized outstanding new projects. Popular, professional, and scholarly publications provided critical analysis and told the story of Modernism in newspaper and magazine articles such as Lewis Mumford's "Skyline" column in the *New Yorker*), as well as books and pamphlets such as *The International Style*, Hitchcock and Johnson 1932; *Modern House in America*, Ford and Ford 1940; and "New Canaan Modern: The Beginning 1947-1952" in *The New Canaan Historical Society Annual*, Jean Ely 1967. Institutions supported Modernism through exhibits and the formation of contemporary archival collections, notably the New Canaan Historical Society which collected Modern memorabilia and materials starting in the late 1940s. These resources enabled the contemporary cross-pollination of ideas, the spread of influences, and the education of the general public.

Role of Women

Women began entering the architecture field at the turn of the twentieth century and achieved some measure of opportunity and success in the 1920s and 1930s. However, after World War II, few women architects were active in the mid-twentieth century, particularly in the Modern style. This gap can be attributed to the postwar culture that encouraged women who had been employed during the war to retire, and younger women to stay at home and not join the work force (Allaback 2008:40).

In addition to Eleanor Raymond, whose 1931 Raymond House in Belmont, MA of was one of the first Modern houses in New England, among the female architects working in the Modern style were Jean Bodman Fletcher and Sarah Pillsbury Harkness, both founding members of The Architects Collaborative (TAC) firm established by Walter Gropius and a group of his students in Cambridge, MA in 1945. Fletcher (1915–1965) and Harkness (b. 1914) studied under Gropius while attending the Cambridge School of Architecture and Landscape Architecture in Cambridge, MA. TAC was known for its collaborative team approach to design, concern with social responsibility, and prolific output of mid-twentieth-century Modern residences, schools, and other buildings.

Anne (née Binkley) Rand Ozbekhan (b. 1918) studied with Mies van der Rohe at the Illinois Institute of Technology, along with her brother well-known Modern architect Roy Binkley (1922–1994) and received a degree in the early 1940s. Ozbekhan was married to the renowned Modern graphic designer Paul Rand, and later to Hasan Ozbekhan, one of the founders of the Club of Rome. She designed five houses for herself – three in Rye, NY, one in Truro, MA, and one in Weston, CT (Westport Preservation Association [WPA] 2010).

The architect and noted furniture designer Florence Knoll Bassett (b. 1917) studied under Mies van der Rohe and Eliel Saarinen. After her husband, Hans Knoll, died she was president of the Knoll furniture company from 1955 to 1960 and

remained as head designer until 1965. She is known for her refined and minimalist corporate and residential furniture design. Two pioneer woman in the field of architecture established notable careers in the Chicago firm of Skidmore, Owings and Merrill (SOM). Natalie de Blois (b. 1921) studied architecture at Columbia University and joined SOM in 1944 where she was the first woman to reach the level of senior designer. De Blois specialized in highrise design and worked on some of the firm's most significant projects, including Lever House (1951–1952), Pepsi Cola (1959), and Union Carbide (1960) in New York City and the Connecticut General Life Insurance Headquarters (1957) and Emhart Corporation (1963) in Bloomfield, CT. Gertrude Lempp Kerbis (b. 1926) studied at the University of Illinois, the Harvard GSD with Walter Gropius (1949–1950), and with Mies van der Rohe at Illinois Institute of Technology, where she received her master's degree in 1954. Kerbis worked for a number of architects and SOM before opening her own architectural firm, Lempp Kerbis in 1967. A founder of Chicago Women in Architecture and the Chicago Network, she was elected to the College of Fellows of the American Institute of Architects in 1970. One of her best known projects in the immense open span Dining Hall (1958) completed with SOM at the U.S. Air Force Academy in Colorado Springs, CO (NHL 2004) (National Trust for Historic Preservation 2010).

Overall, women appear to have most directly affected mid-twentieth-century Modern architecture, particularly residential design, as forward-thinking and persuasive clients. Women's demand for innovative domestic forms spurred imaginative solutions and they were often the driving force behind the selection of a Modern house design (Friedman 2007). Women also may have found more openings for their creative talents in the related design fields of interior design and landscape architecture.

Landscape Architecture

Modernism in landscape architecture evolved gradually from its earlier legacy, rather than as a distinct schism with the past. Mid-twentieth-century landscape designers generally retained existing, familiar materials and conceptual structures in their approaches to site climate, and ecology, with only a few individuals focused on creating new forms and aesthetics (Treib 1993:ix). Modernist architects on the whole viewed the naturalistic landscape as a factor determining the siting aspects of a building's design, as the subject of views from the building, and as a buffer between buildings. Most rarely worked with landscape architects. Marcel Breuer for example wrote in his 1956 book *Sun and Shadow* that "The formation of the land, the trees, the rocks . . . all these will suggest something about the design of the building. The landscape may traverse the building, or the building may intercept the landscape. [But] I cannot believe that the two should be mixed up, confused, or joined by imitation or assimilation" (Blake 1955:41 quoted in Vegesack and Remmele 2003:235).

The earliest expressions of Modern design ideas in landscape occurred in France during the 1920s. In the United States, four major influential figures in landscape architecture emerged in the 1930s who reshaped the American garden aesthetic. Thomas D. Church (1902–1978) received his B.A. degree in landscape architecture from the University of California at Berkeley and his master's degree in city planning and landscape architecture from Harvard University in 1923. His transitional designs reflected both the neoclassical garden tradition and, after a European tour in 1937 when he meet the Finnish architect Alvar Aalto, modern ideas of abstraction, multiple vantage points, and merging indoor and outdoor spaces. Working from his office in San Francisco Church designed more than 2,000 houses and a great number of larger commissions around the country including the Stanford University campus (Hardie 2003).

Garrett Eckbo (1910–2000), James Rose (1913–1991), and Dan Kiley (1912–2004) were classmates in the Harvard GSD in the mid-1930s. Eckbo, a native of California, entered the Harvard landscape program in 1936, but finding it too traditional, studied architecture with Walter Gropius. He returned to California to set up a practice that emphasized a multidisciplinary design approach and social responsibility. Kiley apprenticed with Massachusetts landscape architect Warren Manning and attended the Harvard GSD from 1936 to 1938. He won several commissions with Modernist architect Eero Saarinen

including the St. Louis Arch, MO (1947) and the Miller Garden in Columbus, IN (1955). James Rose was expelled from Harvard in 1937 for refusing to produce standard Beaux Arts landscape designs. His experience in Japan during World War II influenced his postwar work that focused on private gardens, including his own home and studio in Ridgefield, NJ (Cultural Landscape Foundation 2010, James Rose Foundation 2010).

The three Modernist leaders used abstract and layered arrangements of three-dimensional spatial volumes delineated by points, lines, and planes that were inspired in part by contemporary painting (Birnbaum 1999:15). Their designs were known through their prolific commissions and a number of influential articles and books. Among the next generation of noted Modern landscape architects were Lawence Halprin (1916–2009) who studied at the Harvard GSD and worked with Thomas Church before opening his own office in 1949 and Hideo Sasaki (1919–2000) a Harvard GSD graduate who started his own practice in 1953 and was known for his complex, multidisciplinary major public projects. Scottish landscape architect Ian McHarg (1920–2001) earned degrees in landscape architecture and planning at Harvard after World War II. His 1969 book *Design with Nature* linked landscape design and planning with ecology and provided the basic concepts underlying the Geographic Information System (Cultural Landscape Foundation 2010).

Decline of Mid-Twentieth-Century Modernism, 1965–1979

By the mid- to late 1960s, nearly 30 years had passed since the influx of European Modernist architects and designers had carried the Bauhaus canon to the United States. A number of mid-twentieth-century Modern architects had begun to shift away from the strict Bauhaus ideals as taught by Gropius and Mies van der Rohe and to experiment more freely with explicit sculptural forms and volumes marking a change from the formalist Modern aesthetic. Architects like Edward Larrabee Barnes (1915–2004), Ulrich Franzen (b. 1921), John Johansen, Victor Lundy (b. 1923), I.M. Pei, and Paul Rudolph, six architects who graduated from the Harvard University GSD architecture program during the 1940s, moved away from formal box-like geometry. Their designs exhibited a range of more individualistic expressions combining practicality with experimentation as rendered in figurative geometric shapes with attention to innovative structure, materials and surface textures (Meredith 2006). Eero Saarinen, a graduate of Yale and an early Modernist focused on concepts particular to each architectural problem, which he realized as organic sculptural forms including his Gateway Arch in St. Louis, TWA Terminal at Kennedy Airport, NY (1962, National Register listed 2005), and Ingalls Rink at Yale University (1958). On the East Coast, Charles Gwathemy's (1938–2009) Residence and Studio for his mother on Long Island, NY (1966) displayed an expressive sculptural design. Paul Rudolph's 1970 design for the Bass House in Fort Worth, TX used intersecting horizontal cantilevers, extensive windows, and voids in a complex composition.

Barnes captured the changing perspective in the comment that, "Philosophically, the difference between architecture and sculpture has to do with use, with its relation to an activity of man. However, just as a monument, or a pyramid, is something in between art and architecture, so there are bound to be buildings in between. These 'in between' buildings are pure examples of expressionist architecture" (quoted in Heyer 1978:329).

A general negative response to the mid-twentieth-century Modern aesthetic arose starting slowly in the mid-1960s and reached a crescendo by the late 1970s. Public reaction decried the many poorly designed, flimsily built, and badly functioning buildings that simplicity of form and experimentation with less expensive materials allowed to spring up around the country. Criticism extended even to some iconic Modern buildings by top-notch architects. Americans rejected mid-twentieth-century Modernism's "soulless" symbolic emptiness, anti-human scale, and lack of connection to traditional vernacular architecture. Derision targeted public and corporate buildings, the robust concrete architecture referred to as Brutalism, and urban planning under the forces of urban renewal programs. Architect and critic Peter Blake captured sentiments of both the design and public communities in his 1977 book *Form Follows Fiasco, Why Modern Architecture Hasn't Worked* in which he examined a litany of "fantasies" including function, open plan, purity, technology, and form.

A later influential critique among the numerous responses to mid-twentieth-century Modernism was Klaus Herdeg's 1983 analysis of the Bauhaus and Harvard GSD in *The Decorated Diagram, Harvard Architecture and the Failure of the Bauhaus Legacy.* However, despite the naysayers, mid-twentieth-century Modern residential buildings continued to be built until Postmodernism prevailed in the late 1970s. At the end of the decade, political and economic events fostered by the recession and oil embargo of 1973 to 1974 temporarily reduced the pace of construction in the country and shifted the architectural paradigm to better insulated, more energy-efficient structures. When new construction accelerated again in the late 1970s, the dominant designs and forms were no longer mid-twentieth-century Modern.

The dynamic period of vigorous transition between mid-twentieth-century Modernism and Postmodernism was characterized by much debate within the architectural community. In 1967 MoMA held an exhibit on the work of the "New York Five" consisting of Peter Eisenman (b. 1932), Michael Graves (b. 1934), Charles Gwathmey, John Hejduk (1929–2000), and Richard Meier (b. 1934) that was captured in a follow up book of 1972 (reprinted in 1975). Their designs reached back to the "pure" Modernism of the 1920s and 1930s and to Le Corbusier's early houses but presented the ideas in new and varied interpretations (Eisenman et al. 1975). Six of the featured houses were built in the Hamptons on Long Island, a New York summer resort area that served as a launching pad for many young architects' careers in the 1960s (Gordon 2001:130). A critical response to the exhibit was published as a series of essays titled "Five on Five" in the May 1973 issue of *Architectural Forum*, in which the "grays," Romaldo Giurgola (b. 1920), Allan Greenberg (b. 1938), Charles Moore (1925–1993), Jaquelin T. Robertson (b. 1933), and Robert A.M. Stern (b. 1939), who later became dean of the Yale School of Architecture (1998 to present), rebuked the "whites" for creating Modern buildings that were indifferent and unworkable.

Architects like Robert A.M. Stern and Robert Venturi (b. 1925) deliberately turned away from mid-twentieth-century Modernism and returned to more traditional historical classicism and vernacular references. The "Five on Five" authors were greatly influenced by Venturi, with whom Moore had studied at Princeton, and the prominent Yale architectural historian Vincent Scully (b. 1920). Venturi's two ground-breaking publications, *Complexity and Contradiction in Architecture* (published by MoMA in 1966) and *Learning From Las Vegas* (1972, with his wife Denise Scott Brown and Steven Isenour), were essentially manifestos calling for a new approach to design. Houses embodying new ideas about incorporating neoclassical precedents and other historical references were built starting with Venturi's mother's house, the Vanna Venturi House of 1961-1964 in Philadelphia, PA, but did not achieve widespread popularity until the late 1970s.

The landscape architect Charles Jencks (b. 1939) helped to popularize the use of the term "Postmodern" as applied to architecture in his 1977 book *The Language of Post-modern Architecture*. The debate has continued in writings such as those by the *New York Times* architecture critic Paul Goldberger (b. 1950) and exhibits like *The Bauhaus Era in Germany and America*, held by the Smithsonian Institution at the Boston Public Library in 1986 (Brown 1986). Postmodernism achieved widespread public attention in the early 1980s with the completion of Michael Graves's Portland Building (1984) in Portland, Oregon, heralded as first major public Postmodern building, and followed by Philip Johnson's At&T Building (1984) in New York City.

Architectural Characteristics of Mid-Twentieth-Century Modern Houses

Design Concepts Overview

Mid-twentieth-century Modern architecture is generally defined by its distinct break with earlier classical and vernacular styles through an emphasis on simplified building form and functional efficiency in lieu of ornamentation, use of new and often experimental materials and technologies, comprehensive integration of the building with the existing environment,

and incorporation of other visual arts. The holistic concept of design, site, and furnishings celebrated and supported modern living and working activities and priorities.

Structural and visual organization of form based on intersecting planes and volumes or alternating solids and voids replaced the traditionally massed motif. Large expanses of full height windows and glazed doors embraced natural light and along with courtyards, breezeways, terraces, and decks connected inside and outside spaces. The resulting open floor plans and a preference for asymmetry allowed and encouraged a new informality and freedom of lifestyle and workflow. Construction methods and framing and finish materials emphasized "honesty," affordability, and ease of maintenance. Contemporary Modern painting, sculpture, textiles, freestanding and built-in furniture, and lighting were integral to the architectural expression. Buildings exhibited a fresh relationship and sensitivity to their site through energy considerations in the directional orientation to solar cycles and the use of architectural elements such as sunshades, as well as in the design of the approach and provision for the automobile. The aesthetic dynamic between buildings, their settings, and the human occupants' experience dictated placement in the natural landscape, the importance of scenic and spatial views, and the introduction of no or minimal complimentary landscaping.

Modern residential architecture constitutes a specific subset of building design that is captured in the mid-twentieth-century ideas of the home. Among the benefits of the modern industrial age were engagement in fewer labor-intensive domestic activities and increased access to shops and mass-produced goods, which meant reduced activity space and storage needs. The impact of industrial and inventive products resulted in innovative construction modes, labor-saving layouts, and time-saving devices. Houses embodied a rational simplicity with organic plans derived from the modern family lifestyle of the time. The design ". . . discarding styles, lets the house grown from the inside outwardly to express the life within"; therefore the house is not a 'machine for living' in the famous phrase of Le Corbusier, ". . . but a perceiving utilization of machine products to ease, facilitate, and even inspire each process of daily living for each member of the family" (Ford and Ford 1940:11). In fact, the architect and critic Peter Blake contends that Le Corbusier really meant, "A house should be *as beautiful as* a machine" [emphasis added] (Eckhardt 1961:14).

A pivotal concept expressed in mid-twentieth-century Modern houses is the value of spaciousness and the enhancement of the perception of visual space as a modern way of seeing. Former Bauhaus teacher and noted designer Gyorgy Kepes observed in 1944 that "Our age, no less than any other needs to find a consistent orientation, to harmonize its inner and outer vistas" (quoted in Isenstadt 2006:230). One approach, exemplified in the work of Marcel Breuer and discussed in a 1952 *House and Home* article, is the house formulated as a camera with the viewfinder (window wall) framing a selected image of nature. Provision was also made for creating views where none existed, as noted by George Nelson and Henry Wright in a 1945 *Tomorrow's House*, observing, "And on the ordinary suburban lot, where nature does not provide the view, it is possible to manufacture it" (quoted in Isenstadt 2006:234).

Residential architecture occupied a valuable place within the body of work of mid-twentieth-century Modern architects, allowing investigation and experimentation with new design and engineering ideas. The more lucrative commercial, corporate, institutional, and civic commissions formed the mainstay of most Modern architects' practice, and some designed houses only for themselves or a few friends. Marcel Breuer contended that the usefulness and visual impact of a house goes beyond being a mere self portrait of the architect or client, and rather it is where "structure, function, and pure form are developed to the same degree." He considered residential buildings as laboratories for exploring ideas on a small scale that could be translated to larger projects (Masello 1993:9). Breuer transferred this advice to his students such as Philip Johnson, Eliot Noyes, and John Johansen.

Design

Mid-twentieth-century Modern houses exhibit a wide variety of forms and diversity among several different threads of Modernist theory. These show up across the spectrum of houses erected over time from 1930 to 1979 and in the work of a single architect maturing and evolving of the course of an individual career. The International style houses of the pre-World War II period in the 1930s were typically smooth white stuccoed, flat roofed boxes with steel windows, steel-and-cable balconies, and other industrial-derived features. By the postwar decades at least three strains of influence in mid-twentieth-century Modernism were evident coming from the Frank Lloyd Wright, Ludwig Mies van der Rohe, and Walter Gropius and Marcel Breuer. The austerity of the earliest residences also gave way to more nuanced expressions using a variety of materials and forms to offer a richer and warmer experience of the house. In the 1960s, an interest in classicism arose that was manifested in symmetry and a sense of formality. Nevertheless, even with this variation, in contrast to houses from previous eras, mid-twentieth-century Modern houses possess shared characteristics that make them unmistakable in the built landscape. The following discussion is intended to set out the array of design elements that characterize mid-twentieth-century Modern houses overall.

The overall massing of mid-twentieth-century Modern houses constitutes a rectilinear box or a series of articulated geometric or organic sections. The configuration is typically but not always asymmetrical, while maintaining a balanced sense of proportion and arrangement of elements. The massing and articulation of the elevations in Modern houses often but not always emphasize horizontality and reference the horizon in one, sometimes two, stories. Buildings were conceived as juxtaposed or intersecting volumes and planes using cantilevers, open cut-out bays, balconies and decks, open breezeways, and privacy walls. Attics and basements are rare, since the modern lifestyle was simplified by new technologies and a wider array of readily available consumer goods and services, minimizing the need for storage space and ancillary space for maids' quarters, sewing and laundry rooms, etc.

Roofs are flat or low-pitched gable or shed, and eaves might have a modest or broad cantilevered overhang or none at all. Some houses are raised up on piers, while others hug the ground on a poured concrete slab, concrete block, or poured concrete foundation. Depending on the site characteristics, the foundation may be built into a slope. The supporting structural system is most often wood, either balloon frame or the modern post and beam variant, but can be steel or concrete. Some buildings emphasize structure and others planar walls. Dramatic cantilevers may be supported on slender steel columns, or pilotis. Walls are sheathed in wood (redwood or cedar) flushboard or tongue-and-groove vertical wood siding, either stained a natural hue or painted, usually white. Some houses have wood clapboard or wood shingle siding, and plywood is common, particularly for economical and prefabricated houses. Experimental technical materials and manufactured composite panels were also used. Concrete and stucco houses, typically white, were more commonly built at the beginning and end of the mid-twentieth-century Modern period than in the 1940s, 50s, and early 60s. Random laid field or quarry stone with wide mortar joints was used by many architects for foundations, exterior walls, and freestanding privacy walls. Brick is occasionally seen in exterior walls. Many houses have large masonry (brick, stone, or concrete) chimneys.

Fenestration defines the relationship of mid-twentieth-century Modern houses to nature and the surrounding landscape. Windows and other openings in solid walls are placed, dimensioned, and arranged to optimize views from within the house and the infiltration of natural light. The character and function of walls, windows, and doors become interchangeable with window walls, full-height glazing, and sliding glass doors. Ribbon or strip windows, clerestories, and roof skylights with Plexiglass bubbles invite light inside. Wood, steel, or aluminum frames support the windows. Sun screens, or brises soleil, and roof overhangs protect against the strongest summer sun. The primary entrance is most often asymmetrically located and is not always obvious. The approach might consist of a low broad deck, a terrace, or a wide ramp.

On the interior the plan is typically open with the living, dining, and kitchen areas separated from the bedrooms. In simple houses this is achieved by the arrangement of rooms within a single square or rectangular footprint. In its most stripped down form, freestanding storage units, massive chimneys, kitchen counters and open shelving delimit different functional areas. In more complex houses, designated zones, separate wings, small level changes, and multiple floors serve to differentiate spaces. Lofted spaces and bridges further articulate spaces in some houses. The owner's program, the site features, and the architect's creative preference dictate the placement of different functions vertically and horizontally in the house. Interior finishes tend to be simple, durable, and easy to maintain. Floors are slate, fieldstone, ceramic tile, quarry tile, wood, and cork. Straw mat carpet was originally used in many houses. The walls are finished with sheetrock, tongue-in-groove boards or plywood, stone, or composite panels. Interior stairs, located where the open plan demands, are typically constructed of naturally finished wood and metal supports and are not enclosed. Many mid-twentieth-century Modern houses have built-in architect-designed cabinetry and furniture. Contemporary manufactured furniture and lighting, both interior and exterior, were an important aspect of furnishings, which also included modern textiles, art, and moveable furniture. Fireplaces and chimneys of stone or concrete, sometimes brick or metal, stand as major interior features set either at the end of the building or located to serve as a divider between spaces and functions.

Mid-twentieth-century Modern houses used the most up-to-date heating and cooling systems including radiant floor heating. Most of these systems are no longer in service since leaking pipes embedded in the concrete slab floors could not be traced and repaired. Many houses have freestanding garages or carports, while some integrate the garage within the main structure. In one type of expansible plan, connected garages frequently was later claimed as living area.

Siting Considerations

The siting of mid-twentieth-century Modern houses in the natural environment was a hallmark of their design. Land selection and the location and orientation of the house received careful attention, and clients and architects preferred properties with elevation changes and landscape focal points that helped shape the design. Philip Johnson reported that he knew the Ponus Ridge site, with its broad slope ending abruptly above a stream, was the right location for his Glass House as soon as he saw it. Difficult rocky parcels unsuitable for traditional buildings served as a creative challenge for Modern house designers. Once the site was chosen, the configuration of the building and its placement and orientation to the features of the landscape, short distance views and long vistas, and taking advantage of the daily sunlight cycle were paramount and derived from the characteristics of the specific site. Siting optimized the interplay of light and shadow and strove to derive the most visual benefit from topography and landscape features. Some houses were set on flat land, but an equal number intersected with a hillside and some were perched on top of a ledge or at the edge of a drop off.

The design process of mid-twentieth-century Modern houses typically began with the interior configuration of spaces and worked outward. As a result there was little interest in a creating a formal facade and establishing a relationship with the street. In addition, an emphasis on considerations of site and environmental characteristics, discussed below, dictated the positioning of structural units. These serendipitous factors, usually unique to each project, generated inward focused individual houses that might be clustered together but did not easily lend themselves to larger planned communities.

Landscaping at mid-twentieth-century Modern residences typically deferred to the characteristics of the natural environs. Designers minimally augmented the existing woodland or meadow setting of modest houses and vacation cottages with driveway and entrance elements, outside terraces and seating areas, and garden or woodland plantings. Upland sites often featured enhanced clearing of indigenous grey-brown rock outcroppings and cultured plantings of bright green native moss ground cover. Dry-laid fieldstone walls lined gravel driveways and parking areas and delineated the edge of outdoor spaces. Bluestone and slate flagstones paved walkways and patios. Landscapes sometimes feature swimming pools along with pool houses or gazebos. Some houses have more extensive gardens designed by landscape architects (see below).

Construction Methods and Materials

Mid-twentieth-century Modern architecture benefited greatly from the explosion of new building materials and technologies that occurred in the post-World War II era, many of which became hallmarks of the new style. Numerous materials developed during the war were adapted to non-military uses following the war. Modern buildings were often designed to take advantage of the abundance of mass-produced manufactured materials available, juxtaposing contrasting materials to create visual interest from otherwise standardized components and espousing the machine aesthetic of industrial American society.

Traditional wood-frame post-and-beam construction was reinvented as a cost-effective construction method that allowed for larger openings and open floor plans. Steel and concrete framing systems provided alternatives to conventional wood-frame and load-bearing masonry buildings. The new systems could be composed of easy to assemble, standardized parts or poured in place elements and allowed for radical experimentation in architectural design. The fundamental nature of the metal and wood building frames changed as walls became thinner and lighter and roof spans increased. In many cases the roof actually was the structure. Prior to World War II, structural steel frames tended to have heavy masonry cladding. Beginning in the 1950s, curtain wall panels composed of stainless steel, glass, plywood, or fiberboard were essentially hung on the frame. Later, prefabricated wall panels of stone and precast concrete also appeared (Prudon 2008:79, 111).

The characteristic expansive fenestration seen in mid-twentieth-century Modern houses was also due to the availability of large sheets of thick, strong plate glass. Polished plate glass was first manufactured in the United States in the last quarter of the nineteenth century. Following World War I, the automobile industry fueled innovations in the production of plate glass, and in 1959 the introduction of the float process eliminated the need for grinding and polishing the sheets, which further decreased production time (Jester 1995:182–185). Plate glass was a critical component of the curtain wall structural systems used in early-twentieth-century skyscrapers and other commercial buildings, as well as mid-twentieth-century Modern residences.

Popular features of many mid-twentieth-century Modern buildings are exterior windows and partition walls composed of machine-made hollow glass blocks. Glass blocks were introduced in the 1930s and were used in both industrial and architectural applications until the late 1970s. They caught on quickly, and by 1940, more than 20 million glass blocks were sold in the United States by the major glass companies Owens-Illinois and Pittsburgh-Corning. Walter Gropius's 1938 house in Lincoln, Massachusetts, and the 1939 MoMA building by Philip L. Goodwin and Edward Durell Stone were both featured in a 1940 *Architectural Forum* piece on the new material (Jester 1995:194–198).

The softwood plywood industry began in 1905 and developed slowly until World War I. Plywood is an assembly of thin sheets of hardwood or softwood bonded together with an adhesive and used for both structural and decorative purposes. The introduction of improved water-resistant adhesives in the early 1930s and prefinished panels in the mid-1940s greatly expanded the potential uses for the product in the fast-growing housing construction market. After World War II, the number of plywood manufacturers increased dramatically. Standard-sized plywood sheets are easily cut to fit any dimensions, making them extremely versatile components for exterior and interior applications. Modern architects including Richard Neutra and Lawrence Kocher were using the new material in their designs by the late 1930s (Jester 1995:132–135).

Gypsum board, a factory produced panel of noncombustible gypsum faced with paper, was patented in 1894 and became a staple building material by the 1930s. Less expensive, easier, and faster to install than traditional plaster, drywall interior wall and ceiling finishes increased during World War II and were widely used in the postwar housing boom. The smooth

wall finish corresponded to the Modern design aesthetic and was typically painted white in mid-twentieth-century Modern houses. A vinyl covered wallboard introduced in the 1950s needed no further decoration. Carl Koch specified this type of product in his Techbuilt houses (Jester 1995:268–271)

Fiberboard (also called wallboard) was also commonly used to insulate, sheath, and finish Modern building interiors and exteriors. Most fiberboard was produced from wood pulp, although some products were made from recycled consumer materials, the first being Homasote made of repulped newsprint. Mass-produced and readily available by the 1910s, fiberboard was used extensively in the building industry through the 1960s, when plywood and particleboard began to supersede it. Other popular brand names of fiberboard included Celotex, Masonite, and Beaver Board. After 1950, the furniture industry was the primary consumer of fiberboard (Jester 1995:120–125).

Hollow concrete blocks, also known as concrete masonry units, produced from a mixture of Portland cement and aggregates were mass produced beginning in 1900 and actively promoted as a building material from the start. In the early decades of the twentieth century, they were primarily used for foundations (Jester 1995:80–83). By 1920 precast concrete was available for wall facings and curtain walls. The reinforcing of concrete with metal bars greatly expanded the material's potential architectural applications in slab, beam, and column form. Frank Lloyd Wright in particular "elevated the cantilevered slab and mushroom column to an aesthetic form" (Jester 1995:97). By the late 1950s, concrete framing systems were a popular choice for many Modernist architects. Architects like Breuer, Rudolph, and Wright explored the possibilities of poured concrete to create buildings that resembled textured sculptures.

III. Mid-Twentieth-Century Modern Residences in Connecticut, 1930–1979

State History and Geography Overview

Connecticut's location, geography, and history shaped the development patterns of mid-twentieth-century Modern residential architecture within its boundaries. Situated in southern New England between New York (west), Massachusetts (north), Rhode Island (east), and Long Island Sound (New York) with access to the Atlantic Ocean (south), Connecticut encompasses 5,543 square miles of contrasting geographic zones. The state's physical character ranges from the broad Connecticut River valley through the center, rolling terrain in the northeast section, high elevations in the northwest corner in the Litchfield Hills area of the Berkshire Mountains, and sea level low points along the 332 miles of jagged and scenic coastline (Connecticut Department of the Environment 2010).

Connecticut's history from its founding in the 1630s paralleled other states in the region, emerging as a deeply traditional social and political New England community in the mid-twentieth century. Hartford has been the state capitol since 1875, and advanced academics began in 1701with the founding of Yale University in New Haven. Connecticut's eighteenth and nineteenth century industrial and maritime economies were supported by a wealth of raw materials and a strong work force. Major urban centers emerged at manufacturing and shipping centers including Bridgeport, New Haven, Stamford, Norwalk, and New London along the coast and inland at Hartford, Waterbury, New Britain, and Danbury. Starting in 1837, railroads supplemented overland and coastal vessel travel, including the creation of commuter rail lines linking western Connecticut to New York City and streetcar lines connecting suburbs to the state's cities. The majority of the state remained rural and agricultural.

Connecticut's twentieth-century development, particularly in the decades following World War II, was characterized primarily by suburbanization. Fairfield County in the southwest corner of the state that abuts New York melded demographically into the larger New York City metropolitan area. This region, including the cities and towns of

Bridgeport, Darien, Fairfield, Greenwich, Milford, New Canaan, Norwalk, Orange, Stamford, Stratford, and Westport, became one of the most heavily developed, the most densely populated, and the location of the wealthiest communities in the state (Cunningham 1992). These communities have the highest concentrations of mid-twentieth-century Modern houses. The metropolitan areas surrounding Hartford and New Haven also saw rapid growth. The state's population became increasingly urban, classified as 78 percent in 1950 with an increase to 88 percent in 2000 (U.S. Department of Commerce 1981). Litchfield County in the northwest and Windham County in the northeast corners of the state maintained the lowest population densities and least development.

Suburban migrations in the state during the mid- and late twentieth century were fueled in part by the expansion of suburban-based companies that generated a marked shift in employment opportunities. Between 1969 and 1974, 60,000 jobs were added in the suburbs, 12 times the number of urban jobs created in the same period (Cunningham 1992). Much of the state's traditional nineteenth-century industrial base faded by the mid-twentieth century, and shifted to defense-based industries such as the nuclear submarine and boat factories in Groton and New London and the Vought-Sikorsky aviation company in Stratford. In the northwest part of the state, Torrington's metal and machine manufacturing industry evolved from its nineteenth-century base to become a major metals producer and sponsor of Modern design in the mid-twentieth century. The proportion of professional and service industries grew significantly, with different sectors tending to cluster in discrete areas; for example, insurance around Hartford, hedge funds in Greenwich, and pharmaceutical and biotech companies around New Haven. Numerous industrial conglomerates and national and multinational corporations built headquarters in the state, and several occupied important examples of Modern corporate complexes. By the 1980s, 35 Fortune 500 companies had their corporate headquarters in Connecticut, 22 in the southwest corner, mostly in Stamford or the surrounding suburbs (Cunningham 1992:29).

Statewide residential development patterns were significantly affected as well by the introduction and rise of the automobile and subsequent improvements in roads and highways, which encouraged the development of suburban communities. The southwest corner of the state, served by the Metro North commuter line, remained oriented toward New York, while central and western Connecticut workers tended to commute to the greater Hartford area. As automobile use increased, heavy traffic congestion prompted the improvement of the earlier "Post Roads" in the 1920s, followed by the construction of the Merritt Parkway from 1934–1940 (listed on the National Register in 1991) and the Wilbur Cross Parkway from 1939–1947. The Connecticut Turnpike (now Interstate 95), which runs along the coast parallel to Route 1 (Boston Post Road) was built from 1954–1958. The national expressway system was further expanded in the 1950s and 1960s with the addition of large portions of Interstates 84 and 91, as well as state Routes 2, 8, 9, and 52, many of which follow earlier roadways (Cunningham 1992:30; Kurumi 2010).

Connecticut's greatest concentration of mid-century Modern houses developed in the southwestern Fairfield County area, especially in the Town of New Canaan, which is closest geographically and linked by commuter rail and highways to New York City. The industrial and business nodes in Fairfield County and Hartford in the center of the state also fostered residential development, including Modern houses. The rolling and scenic hills of remote Litchfield County in the northwest part of the state formed the setting for a loose cluster of Modern country houses, a number of which were built as commuting residences or weekend retreats for New Yorkers. Yale became a hub of Modern architecture education and construction with residences built by students and faculty in urban New Haven and surrounding towns. Individual houses and neighborhoods of Modern houses also appeared in scattered locations of coastal Connecticut along the railroad and highway commuter corridor. Connecticut's domestic architecture prior to the 1930s was exclusively derived from English precedents in wood-frame and occasional masonry houses in traditional eighteenth- through early-twentieth-century styles. The construction of mid-twentieth-century Modern residences in large numbers after World War II represented a significant break with the customary New England residential character of Connecticut's historic and quiet communities.

Overview of Mid-Twentieth-Century Modern Architecture in Connecticut

Connecticut heralded the beginning of mid-twentieth-century Modernism in American architecture during the early 1930s through revolutionary modern exhibits and programs at the Wadsworth Atheneum and the construction of Sun Terrace/Field House (1932, William Lescaze). The state stood in the forefront of the development of mid-twentieth-century Modern architecture starting in the mid-1940s as the home of Modernism advocates, practitioners, and buildings of national importance. Because of its proximity to New York, New Canaan and surrounding Fairfield County were an early and enduring laboratory, community, and showplace of mid-twentieth-century Modern houses and the associated modern lifestyle. Beginning in 1947, the Harvard Five architects—Marcel Breuer, Landis Gores, John Johansen, Philip Johnson, and Eliot Noyes—were drawn to the area where they produced numerous significant buildings. Philip Johnson's Glass House of 1949 (NHL 1977) in particular is among the most groundbreaking mid-twentieth-century Modern residences in the country. Nearly all of the major American architects working nationally and in the Northeast produced mid-twentieth-century Modern houses in Connecticut including the following distinguished list: Gregory Ain, Edward Larrabee Barnes, Howard Barnstone, Herbert Beckhard, Roy Binkley, Marcel Breuer, Serge Chermayeff, Victor Christ-Janer, Ulrich Franzen, Landis Gores, John Johansen, Philip Johnson, Ely Jacques Kahn, Carl Koch, John Black Lee, William Lescaze, Richard Meier, Ludwig Mies van der Rohe, Richard Neutra, Eliot Noyes, Antonin Raymond, Paul Rudolph, Tony Smith, Edward Durell Stone, and Frank Lloyd Wright.

Mid-twentieth-century Modern residential building construction began in Connecticut before World War II and then flourished in the enthusiastically energetic decades following the war. The southwestern area of Fairfield County closest to New York City, the remote northwestern Litchfield Hills, and shoreline parts of the state were rural in character but still accessible from New York City for commuting, weekend homes, and living and working. The landscape was scenic with special natural qualities that lent itself to the mid-twentieth-century Modern aesthetic. Many rocky and elevated building sites were available that were not suitable for traditional designs but perfect for innovative modern houses. Land prices were low, and building codes were relatively accommodating. Social and artistic milieus flourished in self-gathering communities of architects and clients who preferred to live in Modern houses that fit their vision of modern lifestyle and values. Well-established industries in key cities supported a growing population, and starting in the late 1940s, both manufacturing and finance businesses expanded in the suburbs. Fairfield County became a commuter suburb of New York City and along with the areas around New Haven and Hartford had educated, progressive, and wealthy concentrations of population. The Yale School of Architecture, established in the School of the Fine Arts and Architecture in 1916 (now the School of Architecture since 1972) became a national center of Modernism educational theory and practice by the early 1950s. Yale's School of Architecture helped to spread mid-twentieth-century Modernism in the neighborhoods and suburbs of the immediate New Haven area, across the state of Connecticut, and throughout the country via the prominent architects who taught and the talented students who trained there.

Early Development of Mid-Twentieth-Century Modernism, 1930–1945

While mid-twentieth-century Modern houses in America were occasionally built in urban settings, the majority and the earliest were placed in rural, suburban, and natural environment settings, in accordance with Modernist design tenets. Connecticut set the stage in this regard with its varied and scenic natural landscapes and its proximity to New York City's centers of finance, design, technology, and research and production.

In Connecticut, as was the case nationally, institutions and (mostly young) individuals who appreciated Modern design and were positioned to educate and influence popular taste proved instrumental in exploring and disseminating Modernist ideas. The first important instance was Hartford's Wadsworth Atheneum, which under the pacesetting directorship of A. Everett 'Chick' Austin (1900–1957) from 1927 to 1944, supported modern and avant-garde architecture, art, theater, and

theater design. Following a tour of Europe, Austin and his wife, Helen Goodwin, commissioned the Austin House (NHL 1993) designed by Austin with Leigh H. French (1894–1946) of New York City and completed in 1930. The house's Palladian villa-inspired facade fronts a mix of Baroque and International style interior spaces and finishes. Mrs. Austin's dressing room was modeled after one in the house (1928) of Walter Gropius at the Bauhaus in Dessau, Germany, which was outfitted with furniture by Marcel Breuer. Austin's championing of Modern architecture at the museum included hosting Buckminster Fuller's *Dymaxion House* show from the Harvard Society for Contemporary Art in 1930 and showing MoMA's *Modern Architecture: International Style* in 1932. Among Austin's accomplishments as a museum pioneer was the construction of a new wing with a theater, the Avery Memorial, which contained the first International style museum interior in the United States and was designed by Austin himself with Morris & O'Connor of New York City. The wing's opening in 1934 included an exhibit of the works of Pablo Picasso (Ransom and Gaddis 1993). In October 1935, Le Corbusier lectured at the museum and made drawings while he spoke. He was entertained by the Austins at their Scarborough Street home (*The Hartford Current* 1935; Gaddis 2000).

Frederick Vanderbilt Field (1905–2000) was a contemporary of Chick Austin with an interest in modern arts and ideas. Field hired the Swiss-born architect William Lescaze to design Sun Terrace/Field House (1929–1932) in New Hartford in the northwestern part of Connecticut, which is regarded as the first International style country house built in the United States (National Register listed 1978). Lescaze's European Modernist training is evident in his first executed residential commission. The architectural firm of Howe and Lescaze concurrently designed the renowned Philadelphia Savings Fund Society office building (1929–1932) in Philadelphia, considered the first International style skyscraper in the country. Field, a visionary in his twenties pursuing a career as a liberal socialist writer, possessed considerable inherited resources as a grandson of Marshall Field and great-grandson of Commodore Cornelius Vanderbilt. His desire for a commodious summer and weekend house with room for 2,000 books was achieved through Lescaze's design, which interpreted International principals in a regionalist, practical Modern approach. Set on an eight-acre isolated wooded hilltop site with southern views, the house was constructed of structural steel and concrete covered in stucco with slender steel column supports, spiral stairs, and a terraced orientation to the sun. The house generated so much publicity in the first year that busloads of architecture students would arrive on weekends (Neumann 2006).

Winslow Ames (1907–1990), art historian, devotee of Modernism, and director of the Lyman Allyn Museum purchased and erected two prefabricated steel structures in New London that represent an interest in the application of modern materials and industrial production techniques to homebuilding during the Depression. The Steel House of 1933 (National Register listed 2009) was made by the General Homes company, and the Winslow Ames House of 1934 is an American House or "Motohome" (National Register listed 1995). Ames sold both houses to Connecticut College in 1949 (Battista 1991; CTHP n.d.; Royalty 2007; Vairo 2009).

In addition to these seminal houses, approximately two dozen transitional and Modern homes are known to have been built in Connecticut during the 1930s and early 1940s in the Depression years before World War II. Fairfield County contains the majority of the houses with at least one identified example in Greenwich, Stamford, New Canaan, Darien, Westport, Wilton, Ridgefield, and Reading. Scattered examples are found in other parts of the state including Avon, New Hartford, and Washington in Litchfield County where Wallace K. Harrison (1895–1981) and the firm Talcott and Talcott were active, as well as in New Haven and neighboring Woodbridge. Architects like. Even these earliest houses demonstrate the variety of design vocabulary that existed within the spectrum of Modern house designs throughout the mid-twentieth-century Modern period. These mostly Beaux-Arts trained architects adopted Modernism by drawing on the

formalist minimalist International style, modern modular design approaches, and the organic influences of Frank Lloyd Wright, depending on their training and personal interests.[3]

In Westport, Francis Barry Byrne's Dr. and Mrs. Michael Williams House (1934) bears a notable resemblance to the Bauhaus Masters Houses in Dessau, which Williams had visited in 1925 (WPA 2010). Byrne (1883–1967) was born in Chicago and had no formal architectural education but apprenticed under Frank Lloyd Wright at Oak Park, Illinois. He designed buildings in the Prairie style, and after about 1917, in a personal abstracted and sometimes expressionistic style. He worked mainly in Chicago and Seattle, but from the early 1930s to 1945 he lived in New York.

Other International style houses erected at this time include Lescaze's F. S. Dunn House in Woodbridge (1936), Edward Durell Stone's Wayne V. Brown House (1936) in Darien, and Erard Matthiessen's Lt. Colonel Florimond Duke House (1937) in Westport. Stone (1902–1978) moved from his native Arkansas to Boston, MA where he studied at the Boston Architectural Club (now Boston Architectural College), Harvard, and MIT. He apprenticed at H. H. Richardson's successor firm Coolidge, Shepley, Bulfinch and Abbott, before travelling in Europe and moving to New York in 1929. He worked on Radio City Music Hall at Rockefeller Center and designed the Museum of Modern Art with Philip Goodwin. Stone initially adhered to Modernist designs but became to incorporate more Wrightian, modular, and vernacular elements to create a warmer architecture after a cross country driving trip in 1940 and meeting with Frank Lloyd Wright. His work consisted primarily of single family houses and important larger commissions including 2 Columbus Circle in New York City. Matthiessen (1903–2000), an architect and conservationist, was born in Chicago and graduated from Columbia and the Yale School of Architecture. He was a partner at the architecture firm of Henry Otis Chapman & Son in New York and was later a senior partner in his own firm, Matthiessen, Johnson & Green, in New York and Stamford, CT. Carina Eaglesfield Mortimer Milligan (1890–1978) designed the Modern style Richard Foster Flint House (1936) in New Haven for a Yale professor. Milligan studied architecture at the Cambridge School of Architecture and Landscape Architecture in Cambridge, MA. By 1956, her home and office were located on Sunset Hill Road in New Canaan near the Breuer House II (1947). She is the only known woman designer working in Connecticut during the pre-war period. (AIA Dictionary 1956; *New Canaan Advertiser* May 8, 1975; Caplan 2007).

Across the state, architects with traditional backgrounds experimented in a variety of residential designs that represent modest ventures towards a Modern aesthetic. One example is Willis N. Mills own home, Mill House 1 in New Canaan (1939). It is a transitional two-story modern house with a low-pitch gable roof, horizontal flushboard siding, steel sash, and corner windows and recesses. Willis Nathaniel Mills (1907–1995) received a bachelor's degree in architecture from the University of Pennsylvania in 1929 and immediately began working as a draftsman and project manager for the New York architecture firm of Shreve, Lamb, & Harmon. He resided in New Canaan from 1938, when he was working for William Lescaze (possibly on the Dunn House), until his retirement in 1970. He formed a partnership with Thorne Sherwood (1910–1994) and Lester W. Smith (1909–1993) in 1946. According to a 1957 article in *Progressive Architecture*, the decision to establish the Sherwood, Mills & Smith office in Stamford, a residential-industrial city a 50-minute train ride north of New York City, allowed them to lead pleasanter lives, connect with the community, and build a region-wide diversified practice. Unlike most of the Modern architects with studios in the area, Sherwood, Mills & Smith had a staff of over 50 that included interior and furniture designers. They were responsible for many large commercial and institutional buildings in the region, including the South School in New Canaan (1950), the Mutual Insurance Company of Hartford (1959), and St. Mark's Episcopal Church in New Canaan (1962).

[3] Statewide research relied primarily on period and more recent publications and information collected from interviews, exhibits, and other sources, and it was not possible to conduct field verification for each building. Modern houses were also being built in nearby New York state commuter and rural communities and no doubt influenced Connecticut's development pattern, but are beyond the scope of consideration for this nomination.

The possibility for influences of European Modernism expanded in Connecticut in the late 1930s after Walter Gropius, Marcel Breuer, and Ludwig Mies van der Rohe arrived in the United States in 1937. They and their students at the Harvard GSD in Cambridge and the IIT in Chicago propelled the diffusion of Bauhaus ideas in the United States from the late 1930s , which took root in Connecticut by the mid 1940s. Modernist ideas also began to infiltrate Yale University's School of Architecture in the 1930s. Among the earliest advocates of Modernism was Eero Saarinen (1910–1961), the Finnish-born son of architect Eliel Saarinen, who headed the Cranbrook Academy of Art in Bloomfield Hills, MI. Eero Saarinen earned his architecture degree from Yale in 1934. Although he returned to Michigan where he worked for his father, founding his own firm after his father's death in 1950, Saarinen added several key buildings to the Yale campus – the thin-shell concrete Ingalls Rink and the Morse and Ezra Stile colleges. Saarinen subsequently moved his firm to Hamden, CT in the early 1960s, which was carried on after his death by Kevin Roche (b. 1922) and John Dinkeloo (1918–1981).

At least three of the earliest recorded Modern houses built in Connecticut during the 1930s are no longer standing—the Ostrom Enders House (1933) and Dudley Talcott House (1936) in Avon by Talcott & Talcott and the Kirkbride House (1937) in New Canaan by Robertson Ward (BCA 2008; Zimmerman 2009). Talcott & Talcott had a local practice in northeast Connecticut. Ward (1898–1988) opened an office in Boston in 1921 and worked in New England and New York before relocating to the Caribbean where he pursued a successful career as a resort designer.

Houses built in the 1940s in Connecticut continued to reflect a variety of sources and influences. The enduring persuasion of Frank Lloyd Wright's ideas is seen in the Joseph Delano Hitch, Jr. House (1940–1941) in Westport, which was contemporary with the major 1940 retrospective exhibit of Wright's work at MoMA in New York. Designed by Antonin Raymond and Noemi Raymond, the house displays both Modernist and Wrightian and Japanese influences and was commissioned by the chairman of the Dorr-Oliver Corporation, an engineering concern in Stamford (WPA 2010). Antonin Raymond (1888–1976) was a Czech-born architect who immigrated to the United States in 1910. He worked with Cass Gilbert (1859–1934) in New York and then with Wright at Taliesin East and on the Imperial Hotel in Tokyo, Japan. He maintained practices in Japan and in New Hope, PA in the United States where he synthesized inspirations from Wright and Le Corbusier. French-born Noemi Pernessin Raymond (1889–1980) was a designer of commercial art and building interiors and a craftsperson who collaborated on projects with her husband, Antonin Raymond after their marriage in 1914.

The R.P. Ettinger House (1940-41), in Norwalk was designed for the president of Prentice-Hall publishers by Ely Jacques Kahn (1884–1972) and Robert Allan Jacobs (1905–1993) who were known mostly as New York commercial and skyscraper architects. The house exhibits the Modern formalist influences of Mies van der Rohe in an expansive pinwheel plan and high quality finish materials (WPA 2010).

Architect Victor Civkin embraced Modernism in the Victor Civkin House (1941), the house he designed for himself shortly after moving to Fairfield. The four-level residence has a low-pitch shed roof, partly covered sun deck, horizontal and corner windows, a large stone chimney, and redwood siding that was originally unpainted (Fairfield Historic District Commission 2008). Civkin (1898–1968) fled the Russian Revolution in Ukraine arriving in Chicago in 1922. He moved to Cleveland in 1933 and to Fairfield County in 1937 near the General Electric headquarters where he established his private practice (WPA 2010). Civkin pioneered the development of all-electric kitchens at General Electric and established a highly prolific career in Connecticut designing houses mostly in Fairfield and Westport.

The burst of Modern construction in the region prompted New York's MoMA to publish the 1940 *Guide to Modern Architecture: Northeast States* by John McAndrew, curator of architecture, to "help increase public interest in the new architecture" (McAndrew 1940). The guide illustrated the variety of contemporary interest for functionality of design and

materials, and economy in mid-twentieth-century Modern architecture and contained references to 12 private houses in Connecticut including the previously discussed Steel House (1933, General Homes), Winslow Ames House (1934, American House), Sun Terrace/Field House (1929–1932, Lescaze), and Wayne V. Brown House (1936, Stone).[4]

The guide also highlighted a half-dozen houses at scattered locations in coastal and western parts of the state including the Howard Markel House (1937, William Lescaze) in Redding, the Rex Stout House (1930, A. Lawrence Kocher and Gerhard Ziegler) in Fairfield County (exact location undisclosed), the William M. Harris House (1937, William Hanby and Allmon Fordyce) in Greenwich. Hanby and Fordyce both experimented with the use of cast concrete in small houses. Kocher (1885–1969) studied history and architecture at Stamford University, Pennsylvania State University, MIT, and New York University. He proclaimed his advocacy for Modern architecture when in 1927 he became managing editor of *Architectural Record* until 1938 and transformed it from a Beaux-Arts publication to one that espoused a broad concept of Modern architecture. He experimented with unconventional materials such as plywood and aluminum to foster inexpensive small houses and designed buildings that created a Modern campus at Black Mountain College from 1940 to 1946. Kocher championed the preservation of architectural landmarks and served in several capacities at Colonial Williamsburg (BMC 2010).

Industrial architect John W. Lincoln's seaside house in West Mystic (Groton) (1933) incorporated "ingenious borrowings from boat construction" (McAndrews 1940:23). The house designed by Cairo-born, New York City architect and industrial designer Vahan Hagopian (1889–1971) for himself in Ridgefield (1938) was an experimental and economical structure that used a horizontal and diagonal braced "modular" stud frame with Masonite panels and "Canec" [5] exterior sheathing, insulation, and interior finish. The Hatcher Hughes House (1940, C. H. Warner, Jr.) in West Cornwall had an open, rational L-shape plan, two-story steel lally columns, a glazed window wall, and a tin roof. It was built using local stone and wood from the land owned by American playwright, Pulitzer Prize winner, and Columbia University professor Hatcher Hughes (1881–1945) who divided his time between New York City and his Cornwall farm (McAndrews 1940).

Between 1942 and 1944, with designers and potential clients heavily involved in the war effort, no mid-twentieth-century Modern houses have been identified as being built in Connecticut. However, the educational training of nascent architects continued at Yale, and a number of practicing architects with Connecticut associations joined the military services in design capacities, such as E. Carleton Granbery who commanded the Navy Seabees in the Pacific and Victor Christ-Janer who worked as a camouflage artist and for the Army Corps of Engineers. In the long term, the development of new material and construction technologies for war purposes later translated into a myriad of civilian peacetime applications and underpinned much of postwar mid-twentieth-century Modern design.

Major Growth of Mid-Twentieth-Century Modernism, 1945–1965

Once World War II ended in 1945, flood gates of creativity and construction opened across the nation, and Connecticut emerged as one of the most important incubators of mid-twentieth-century Modernism in the country. As in the pre-war period, Modern residential construction in Connecticut primarily clustered in the wealthy New York commuter and leisure towns in the state's southwestern and northwestern corners and around New Haven, with scattered examples near Hartford and other areas of the state.

[4] The surviving status of the complete list of Connecticut houses in the 1940 MoMA Guide has not been verified.
[5] Canec was a Hawaiian building product made from the 1930s to the 1960s of sugar cane fibers treated with arsenic.

Approximately 20 mid-twentieth-century Modern houses are recorded to have been built in Connecticut during the next five years alone, mostly in New Canaan, and more than 100 residences in Fairfield, Litchfield, and New Haven counties between 1950 and 1960.[6] Most of the communities were quiet towns known for their colonial heritage where the abrupt insertion of Modern buildings caused a stir. Strong social networks that linked people with shared interest in and values for contemporary design were responsible for all the major concentrations of Modern houses in Connecticut—in Litchfield County, New Canaan, and New Haven.

New Canaan and the Harvard Five

In 1947, 15 years after the completion of Sun Terrace, the nation's first International style country house, Connecticut again made a pivotal contribution to the national development of mid-twentieth-century Modern architecture in the United States, when two quintessentially modest Modern houses designed by Eliot Noyes and Marcel Breuer for their families appeared in the traditional town of New Canaan. Two years later in 1949, Philip Johnson completed his elegant and astonishing glass and steel Glass House. These residences heralded the influx of architects and their projects that defied the traditional ideas of "house" in favor of structures that experimented with forms that were floating in space, upside down, completely transparent, or otherwise completely novel. They shaped the architectural contours of New Canaan, Connecticut, and the nation over the next 35 years. Around these houses, the Modern architects and their clients and supporters in New Canaan created a loose community of creative and progressive oriented people.

A core group of architects, all of whom had studied under Walter Gropius, came to be known as the "Harvard Five" comprised of Marcel Breuer with his former students Landis Gores, John Johansen, Philip Johnson, and Eliot Noyes (Ely 1967; Earls 2006). These architects and the others who joined them firmly established the Bauhaus derived stream of Modernism in Connecticut, and their work was monitored by modern enthusiasts, architects, and scholars nationwide. John Johansen recently commented on the social and creative circle in New Canaan, "We gathered in the area for the company and friendship and started designing our own homes. We built our homes as examples of our work to which we invited guests and friends, and those who were curious, including officials of the Museum of Modern Art" (Gibson 2005).

Eliot Noyes (1910–1977), the first to settle in New Canaan, left the office of industrial designer Norman Bel Geddes with an IBM typewriter account and established his firm and home in town, after an offer he made in Westport was turned down. The Eliot Noyes House I (1947, demolished) was a rectangular, wood frame, flat roof house set into the hillside with a relatively solid privacy wall facing the street and an off-center ramped entrance leading to a second-level entry foyer and bedrooms. Living room, dining room, kitchen, and study were on the first level and extensive windows at the rear provided views of the backyard and a pond (Earls 2006:24–27). Noyes' pioneering achievements in American corporate design and culture forged a new direction based on unifying functionality and design in a purist "theory of total design" that fused architecture, art, interior design, products, and graphics. Noyes worked in many design circumstances, but said "I am first of all an architect. I was trained as an architect." (Bruce 2006:10–12). Noyes designed several houses in New Canaan, including the Noyes House II (1955) (National Register listed 2008).

Marcel Breuer (1902–1981) stands as one of the most influential members of the mid-twentieth-century Modern movement, disseminating Bauhaus ideas through architectural education and private practice. He belonged to the original generation of Bauhaus-trained Modernists and was already highly regarded as a teacher and furniture designer before coming to the United States in 1937. Breuer received numerous awards for individual projects and for his overall

[6] Numbers are based on known properties (including properties that have been demolished) identified in statewide research for the nomination. No doubt there are many other properties, and some have estimated that as many as half the mid-twentieth-century Modern houses constructed in Connecticut have been destroyed.

contributions to the field of architecture. He designed several houses in Massachusetts, some with Gropius, before relocating to New York City in 1946 to live and set up his practice. His students Gores, Johansen, Johnson, and Noyes were already working in New York. Breuer's main practice consisted of corporate commissions, but throughout his career he included and highly valued opportunities for residential projects. He viewed residential designs as small-scale laboratories for experimentation with ideas about detailing, textures, patterns, sun and shade, and structure.

In 1946, Breuer and Johnson began looking at land in Stamford for weekend houses but shifted their focus to New Canaan at Noyes's suggestion. Breuer purchased land on Sunset Hill and built a weekend home, Breuer House II, in 1947 following a variation of his wood frame "long house" prototype that he had started designing on Cape Cod in 1945. Breuer wrote that the continuous fluid tension structure was a completely new architectural concept that appeared to defy gravity but was logically integrated to the ground. The house was widely admired and appeared in many publications. By 1951, problems with the cantilevered deck and one end forced Breuer to build fieldstone support walls, but the house remains an architectural landmark (*Ibid*:36-41). Breuer later completed a second house in New Canaan, the Breuer House II (1951), a grounded structure of fieldstone and glass. He also designed the Soriano House, Greenwich (with Papachristou, 1969).

Philip Johnson played a central role in the national development of mid-twentieth-century Modernism through his architectural practice, his position at New York's MoMA, and his advocacy of Modern design and art. In 1949, he purchased five acres on Ponus Ridge overlooking a valley and completed the Glass House, inspired by Mies's plans for the Farnsworth House. The fully glazed glass box resting on the ground attracted attention and curious visitors during its construction, and continues to do so today. Johnson designed other houses in New Canaan including the Hodgson House (1950, National Register listed 2004), Wiley House (1952), Ball House (1953), Wiley Speculative House (1954), and Boissonas House (1956).

Landis Gores (1919–1991), then working in the office of Philip Johnson, completed an expansive house, the Landis Gores House (1948) for himself in New Canaan (National Register listed 2002, Clouette 2001). Gores established his own office in New Canaan in 1951. The Landis Gores House, inspired by both mid-twentieth-century Modernism and Wrightian organic design, is his only surviving documented single-family residential work. His House for All Seasons (1978) in New Canaan has been demolished.

John M. Johansen (b. 1916) opened his New Canaan practice in 1948 after working for Breuer and Skidmore Owings and Merrill. Johansen designed his first house in 1949 (demolished) as a floating platform for being one with nature with a two-story glass wall facing the back yard. Commenting on the arrangement of bedrooms below the living floor *McCalls* magazine announced, "It's an Upside–down house" in June 1952 (Earl 2006:60-63). Johansen went on to complete other houses that experimented with and explored a range of geometric forms and building materials. A number of Johansen houses in New Canaan have been demolished. His projects elsewhere in the state include the Goodyear House, Darien (1956), Dr. Herbert Taylor House, Fairfield (1956), Ritts House, Greenwich (1968), Pope House, Salisbury (1973), and Ellsworth House, Salisbury (1976).

Victor Christ-Janer (1915–2008) studied sculpture and received a bachelor's degree in architecture from Yale in 1947. He established a firm in New Canaan as part of the town's first group of Modern architects. In 1948 Christ-Janer purchased property in New Canaan and a year later started the Victor Christ-Janer House, an elongated structure set on a fieldstone foundation, completed in 1951. Christ-Janer designed other houses in New Canaan, including the Roles House (1953), Daine House (1953-54), Irwin House (1954), Speculative House (1959), and Brandon House (1977). He was instrumental in the commercial development along Elm Street where he ran an art gallery.

A number of other architects working in New Canaan at this time helped to support and spread Modernism in the town and region. By the early 1950s approximately 30 mid-twentieth-century Modern houses had been built in New Canaan, and the period of greatest construction extended into the early 1960s. Willis N. Mills of Sherwood, Mills & Smith, who designed one of the earliest mid-twentieth-century Modern houses in town, the Rantoul House (1947), as well as the Durisol/Risom House (1949), the Mills House (1950), Knoll House (ca. 1955, demolished), and the Mills House 2 (1956). William Pederson (1908–1990) completed his architectural education in 1934 but went on to design Modern buildings including the Hall House (1962). John Black Lee (b. 1924) received training as an engineer and architect before becoming an architect that is apparent in his designs for Lee House 1 (1952), Lee House 2 (1956), Rogers House (1957), Teaze House (1960), the System House (with Harrison DeSilver, 1961), and Monroe House (1968). Several of Lee's New Canaan houses were featured in national publications. Hugh Smallen (1920–1990) was a graduate of Yale whose residential work in New Canaan included his own home, the Smallen House (1957), Tatum House (1962), Becker House (1963-64), and Parsons House (1964). Russell Ford (ca. 1923–unknown) designed several houses alone and in the partnership of Gates and Ford, including the Ford House (1954), Melville House (1958), and Russell Ford House (with Edward Winter, 1961). The number of architects commissioned for houses in New Canaan during the 1950s was remarkable, including Howard Barnstone (Smithers House, 1956, demolished), Leroy Binkley (Hurlburt House, 1956), Frank Lloyd Wright (Tirrana/Rayward House 1956), and Edward Durrell Stone (Celanese House, 1959). The fever pitch diminished in the 1960s, but still saw distinguished works by the likes of Ulrich Franzen (Dana House, 1964) and Allan Gelbin (Murphy House, 1964; Luethold House, 1966; and Whitlow House, 1969). Lazlo Papp complete his house in 1965; Richard Bergman completed the Latham House in 1968; and Alan Goldberg redesigned a 1952 John Johansen House as the Goldberg House in 1977.

Approximately 90 mid-twentieth-century Modern houses stand today in New Canaan that represent the work of more than 30 architects. Many of the houses were highly distinguished and were published in professional and popular periodicals. Several were recognized with awards including the Hodgson House (1950, Philip Johnson) which received the first prize in residential design at the 1954 International Exhibition of Architecture in Brazil and the 1956 First Honor Award from the American Institute of Architects. Downtown New Canaan was a hub of activity in the cluster of at least seven architectural offices including those of Eliot Noyes and Associates (96 Main Street), Philip Johnson, John Black Lee Associates (36 Grove Street, opened 1954), Victor Christ-Janer (Elm Street, opened 1955), Gates and Ford Architectural and Planning Associates (105 Main Street, 1950-1957), Hugh Smallen (Main Street, opened 1960), and Gary Lindstrom (82 Main Street, opened 1963). This proximity fostered an unusually high degree of camaraderie in the community that John Black Lee described as "an off-campus school of architecture" in which they all "met for lunch, lectured in each other's classes, and had debates . . . Nothing compared with the dynamics of New Canaan" (John Black Lee, Interview 2010).

Within the framework of the principles of Modernism, the Harvard Five architects, and in fact all the mid-twentieth-century Modern architects, held a personal interpretation of design. Examination of the group's buildings over time as they continued to design houses for the next several decades in Connecticut and elsewhere reveals how the individuality of their vision evolved away from original pristine geometric forms. Designs drew influences from varied sources like Mies van der Rohe, Wright, and earlier historical references such as Palladio, but tended to lean in a particular direction. Richard Foster, who worked with Philip Johnson, remarked that "Very little theory was ever discussed in the office although we all took a lively interest in defining the historical precedents for what we were doing" (NCHS 1986:13). Speaking at a 2006 Harvard GSD exhibit on "Beyond the Harvard Box," John Johansen declared that Modernism was more diverse and complex than just simple adherence to the Bauhaus philosophy (Meredith 2006).

In an effort to publicize the Modern houses and in response to the tremendous interest that had been engendered by the Glass House, the first New Canaan house tour was held in the spring of 1949, attracting 1,000 visitors and raising $2000 for the New Canaan Library. The houses opened were Noyes House I (1947, Eliot Noyes), Gores House (1948, Landis

Gores), Glass House (1949, Philip Johnson), Breuer House (1947, Marcel Breuer), Rantoul House (1948, Sherwood, Mills & Smith), and the Kniffin House (1949, Breuer and Noyes). Ten of these popular house tours were held between 1949 and 1967, which showcased between six and ten houses and attracted interest from near and far.

Philip Johnson recalled the excitement of these first few years in New Canaan saying, ". . . we bright young things of the early, the late 1940s, decided to revolutionize house architecture – and we were going to do it, by God. We had the greatest talent here in town. We had Marcel Breuer and Eliot Noyes and then John Johansen. We had a group here that couldn't be equaled anywhere in the country. New Canaan was the center of the modern architecture for the entire United States, and we all felt very proud of ourselves for being in the minority . . . We loved to have people come to our houses. We were propagandists for the flat roof and the big window and the smooth surfaces and the boxes that we have peppered the countryside with" (NCHS 1986:18, 19). By the early 1950s, a *House and Home* article inquired "What's going on in New Canaan?" Tensions over the increasing number of Modern houses and the curious crowds of people they attracted erupted briefly in an exchange of doggerel poems in the *New Canaan Advertiser*.

At least 19 mid-twentieth-century Modern houses built in New Canaan in the initial burst of activity between 1947 and 1960 have been demolished. This lost group includes two Breuer houses (Kniffin House designed with Eliot Noyes and Mills House, both 1949); five Johansen houses (Dunham House 1950, Johansen House 1951, Campbell House 1952 (reconstructed as the Goldberg House 1977), Dickinson House 1953, and Goode House 1953); five Noyes houses (Noyes House 1 1947, Tallman House 1950, Brown House 1951, Mosely House 1951, and Stackpole House 1951); one Christ-Janer house (Trench House 1958); and others.

Litchfield County

Concurrent with developments in New Canaan in the 1950s, rural and scenic Litchfield County in the remote northwest part of Connecticut became a popular destination for well-to-do and artistic people seeking a progressive architecture that was consistent with their desire to create a better world and a better way of living in it. Litchfield County vividly affirms the role of social connections in the postwar dissemination of Modern philosophy and design commissions. It is particularly important for the high caliber of houses designed by prominent architects for wealthy business men in Litchfield, as well as for scattered expressions of mid-twentieth-century Modern built for the bohemian art community in Roxbury and Washington.

Leslie Stillman and Rufus Stillman, an executive at the Torin Company in Torrington, conducted deliberate research in order to build a contemporary house of their "own time" using GI bill funds. The Stillmans visited the Gregory Ain demonstration house at MoMA in 1950 and studied Marcel Breuer's House in the Garden of the previous year before selecting Breuer as the architect for their new house. The Stillman House I, a variation of Breuer's "long house" form, was completed in 1951. This commission evolved quickly into a local web of personal relations, a commitment to excellent modern design, and a series of creative collaborations. Leslie Stillman's mother, Doris Caesar, a sculptress from New Canaan, engaged Breuer to design the Caesar Cottage in Lakeville in 1952. Ten houses were built in the area by the end of the 1950s and another five by 1975, designed by Marcel Breuer, Richard Neutra, John Johansen, Eliot Noyes, Edward Durell Stone, and Edward Larrabee Barnes. The Stillmans commissioned two additional houses by Breuer—Stillman II (1965) and Stillman III (1973-74). They also encouraged Andrew Garagin, president of the Torin Company, to hire Breuer, which resulted in two more houses—Garagin I (1955-57) and Garagin II (1973-74). This distinguished cluster includes Breuer's last two residential commissions—Stillman House III and Garagin House II—both completed in 1973–1974. The Stillmans also sold land next to the Stillman House I to local physician Dr. C. H. Huvelle on the stipulation that he hire either Breuer or Johansen. The Huvelles chose Johansen to design their house built in 1953 (Litchfield Historical Society 2001a).

Stillman and Garagin were instrumental in the Torin Company's retention of Marcel Breuer for its local and international corporate buildings. They also facilitated the Town of Litchfield's selection of Modern architects for a variety of municipal projects including Marcel Breuer and Herbert Beckhart for the High School (1954–1956); John Johansen for the Junior High School (1965), and Eliot Noyes for the Oliver Wolcott Library (1965). Speaking about the flourishing of mid-century Modern architecture in Litchfield, Breuer commented, "Somewhere, somebody starts something, and then it spreads" (Litchfield Historical Society 2001a, 2003).

The artistic and social circle in Litchfield and the neighboring towns of Roxbury and Washington shared interests in art, architecture, liberal politics, and family-raising. The Stillmans collected modern art by artists like Klee, Miro, Arp, and Picasso. They started a hooked rug cottage industry by soliciting designs from local artists that were hooked by Mrs. Palmer, a local resident. Participating artists included Alexander Calder, Louis Calder, Marcel Breuer, Connie Breuer, and Robert Wolff, an Abstract Expressionist who was the brother-in-law of Connie Breuer and headed the art department at Brooklyn College. Illustrious sculptor Alexander "Sandy" Calder (1898–1976) lived and worked at his farmhouse and studio in Roxbury. His famous mobile and stabile sculptures were commissioned for placement in and around numerous mid-twentieth-century Modern houses throughout the Northeast and the country. Calder also created murals, including one for the swimming pool area of Stillman House I. Other noted artists in the local creative community included abstract sculptor William Talbot (1918–1980), playwright Arthur Miller (1915–2005), and well-known political cartoonist Robert Osborn (1904–1994) for whom Edward Larrabee Barnes designed a house in Salisbury (1950). Graphic designer Ivan Chermayeff (b. 1932), the son of Serge Chermayeff, had a part-time home in North Salem, NY near Litchfield County and completed many designs for the Torin Company.

The work of other mid-twentieth-century Modern architects represented in Litchfield County includes the Crane House in Morris (1949) by New York architect Henry Hebbeln (1915–1962) and the Morosani House in Litchfield (1949, Edward Durrell Stone). A few Modern projects were conceived as remodeling of historic houses or barns. Among several known in Litchfield County was Hebbeln's 1948 remodeling of a farmhouse in Sherman where he installed full height glazed walls within the historic post and beam frame. He rented the house to the noted abstract painter Arshile Gorkey (*Life* 1948).

New Haven and Yale University

Yale University in New Haven, emerged as a leading center of mid-twentieth-century Modernism in the state and the country by the early 1950s under the leadership of President A. Whitney Griswold. In 1951–1953 Yale built its first of many Modern buildings when Griswold commissioned Louis Kahn to design the New Art Gallery. Kahn (1901–1974), an Estonian immigrant who received his Beaux-Arts architecture education and degree from the University of Pennsylvania, helped establish and explore monumentality in Modern architecture through the Yale Art Gallery and other important commissions. George Howe (1886–1955), formerly of the firm Howe and Lescaze, an early practitioner of the International Style, became the first in a line of Modernist chairs of the Yale School of Architecture from 1950 to 1954. Paul M. Rudolph (1918–1997) chaired the School of Architecture from 1957 to 1965 during which time he designed the Yale Art and Architecture building (1958). Rudolph completed his architectural degree under Walter Gropius at the Harvard GSD in 1947 and was a pioneer in designing spatially complex and powerful Modern architecture in Sarasota, Florida, New Haven, and around the country. Rudolph was succeeded by the Postmodernist architect, Charles Moore (1925–1993) from 1965 to 1970.

Other important mid-twentieth-century Modern faculty members at Yale included Victor Christ-Janer, Philip Johnson, John Johansen, Eliot Noyes, Eero Saarinen, G. E. Kidder Smith, and King-lui-Wu. Yale's influence in the development of architectural theory and scholarship was expanded by Vincent Scully (b. 1920), a prominent architectural historian,

theoretician, and influential early advocate of Modernism, who joined the Yale faculty after earning his Ph.D. there in 1949 (Brown 1976; Wigren 2001). Visiting professors, lecturers, and critics included Alvar Aalto, Marcel Breuer, Harwell Hamilton Harris, Carl Koch, Le Corbusier, John Black Lee, Lazlo Moholy-Nagy, Richard Neutra, Oscar Niemayer, and Frank Lloyd Wright. The Yale School of Art and Architecture became a graduate professional school in 1959 and the School of Architecture was defined as a separate school with its own dean in 1972.

One of the initial Modern houses in the greater New Haven area was professor King-lui-Wu's (1918–2002) first residential commission, the Rouse House (1952) in North Haven, an experimental house designed for a Yale archaeologist. Born in China, Wu attended Yale and received his master's degree in architecture in 1945 from the Harvard GSD where he was a classmate of the "Harvard Five" under Walter Gropius, then returned to Yale to teach. His over 40 year teaching career had a profound influence on Modernism through his hundreds of students.

New Haven's eighteenth and nineteenth century residential neighborhoods around Yale are peppered with mid-twentieth-century Modern houses largely as a result of the University's and the City of New Haven's adherence to Modernism after 1950 and the proclivities of faculty and others who chose cutting-edge Modern designers for their houses. Approximately 40 mid-twentieth-century Modern houses are recorded as having been built in the city. A number are tucked into hillsides on the edge of the Saint Ronan–Edgehill neighborhood, which is comprised predominantly of distinguished nineteenth- and early-twentieth-century buildings. The assemblage includes houses by major architects and the homes of notable individuals.

In some cases, individuals constructed a Modern house as a public symbol of the owner's Modernist views, upon embarking on a new position in New Haven. Architect Chester Bowles, Jr. designed the Ed Logue House (1953) just before Logue was appointed to oversee New Haven's controversial urban renewal redevelopment program (*New York Times* January 29, 2000). Paul Rudolph designed his house (1958) about the time he started designing Yale's Art and Architecture Building; Serge Chermayeff (1900–1996) designed his house (1962) when he began teaching in the School of Architecture from 1962 until his retirement in 1970; and Charles Moore completed his Postmodern house (1966) a year after he was appointed chair of the School. Other architects working in New Haven included Howard Barnstone (1923–1987), Valerie Batorewicz, William DeCossy, E. Carleton Granbery, Paul Mitarachi (b. 1921), Douglas Orr, and Frank Winder.

Other Notable Modern Architects and Houses in Connecticut

Across much of Connecticut, young architects starting careers and established practitioners who adopted Modernism mid-planned or built twentieth-century Modern houses. While identification of the range of mid-twentieth-century Modern houses in Connecticut is still being understood, in Fairfield County outside of New Canaan, approximately 20 mid-twentieth-century Modern houses have been identified in Westport and at least 10 in the adjacent town of Weston (WPA 2010). Edward Durell Stone (1902–1978) completed the Martine House in Greenwich (1948). In Orange outside of New Haven, Henry F. Miller (1916–2008), a student at Yale's School of Architecture, designed and built the highly glazed Miller House in 1948-1949 as his thesis project (National Register listed 2001). The house was referred to as "ultra-modern" in a contemporary *New Haven Register* article. Public tours of the house, held to benefit the New Haven Boys Club, drew an estimated 25,000 visitors (Wigren 2001). In the 1950s, the direct lineage of European Modernism appeared in Connecticut with Ludwig Mies van der Rohe's Morris Greenwald House in Weston (1955–1956) and three houses designed by Richard Neutra—the Henry and Betty L. Corwin House in Weston (1955), the Glen House in Stamford (1960), and the George Kraigher House II in Litchfield (1957–1958). The work of the Harvard Five and many of the other architects that are represented throughout Connecticut is also discussed in other sections of the context.

Frank Lloyd Wright, who more frequently worked in the Midwest and Southwest, completed two houses in Connecticut—the Frank S. Sander House (1952) in Stamford and the Tirranna/Rayward House (1956) in New Canaan, which exemplify essential aspects of his residential designs. Wright's influence is evident in Connecticut houses by apprentices and students who espoused Wright's characteristic low and horizontal massing, broad roof overhangs, flowing plan, and complex geometry. Allan J. Gelbin (1929–1994) trained as an apprentice at Taliesin East in Spring Green, Wisconsin and came to New Canaan to oversee construction of Tirranna. He subsequently established a practice in Fairfield County and designed at least nine buildings in the state including his studio (1965), the Johnson House in Danbury (ca. 1960), the Murphy House (1964) and Leuthold House (1966) in New Canaan, and the Kaltman House in Westport (ca. 1965). Like Wright, Gelbin also frequently designed furnishings for his clients.

Robert Carroll May (1914–2000) attended Taliesin West from 1939 to 1942 and settled in Hartford in 1947. Between 1947 and 1958, he designed at least 15 Wrightian-inspired residences in central Connecticut, including the Clarke (1947), Ford (1948), Bassevitch (1951), Kirsch (1953), Hackenburger (1950s), Wolf (1950s), Salisbury (1954), Lavitt (1955-1956), and Carpenter (1958) houses. May designed six residences for the University of Connecticut in Storrs, including the Wood (1951), Gerson (1950s), Moore (1950s), Hilding (1950s), Orr (1950s), and Owen (1950s) houses (Holmes 2010).

Edgar Allen Tafel (1912–2008), one of Wright's most well known apprentices, studied with Wright for nine years and oversaw construction of Fallingwater (1935) and other key buildings. Tafel left Taliesin in 1941 to pursue his own practice in the New York area. He designed a house at 9 Outer Road in Norwalk, Connecticut in 1954 that is comprised of attached rectangular and angled sections (Bryant 2010).

Women architects were rare during the postwar Modern period, but a handful designed houses for themselves or clients in Connecticut. Anne (née Binkley) Rand Ozbekhan designed the Paul Rand House in Weston of 1951 for herself and her first husband, although her well-known brother, Roy Binkley, was the architect of record (Bryant 2010a). Estelle Margolis (b. 1924) established a practice in Westport in 1955 and designed many buildings, including two houses in the Village Creek neighborhood of Norwalk in the late 1950s (Bryant 2010b). Valerie Batorewicz (1936–1983) designed an experimental Foam House in New Haven in 1971 (Brown 1976:60). Batorewicz and Margolis both studied architecture at Yale University.

Planned Developments

Most mid-twentieth-century Modern houses were built on discrete individual lots, but a few deliberately laid-out neighborhood enclaves appeared starting in the late 1940s and early 1950s. This trend can be attributed to the general interest of Modern architects and progressive homeowners in living near compatible people, shared ideals about Modern housing, and patterns of suburbanization. These subdivisions appear to have been the first attempts to create planned developments of mid-twentieth-century Modern style houses in Connecticut. They may have been influenced in part by Frank Lloyd Wright's 1948 "Usonia Homes" development in Pleasantville, New York, located a short distance from New Canaan, northwest of Stamford and Greenwich, Connecticut. The Usonia project involved the construction of 50 houses on 100 acres.

At least two real estate development projects conceived by Modern architects occurred in New Canaan in the mid-1950s. Victor Chris-Janer formed a partnership with local builder Robert Roles with an ambitious plan to develop Frogtown Terrace on 150 acres. Although the project appears not to have been built, Christ-Janer remained involved in other speculative developments. John Black Lee purchased 20 acres of the rocky ledges along Chichester Road, which he subdivided into six lots and sold to other architects who intended to build modern style houses. Lee built his own house in

the development in 1956. Other contemporary houses constructed in the immediate area were designed by Hugh Smallen, John Black Lee and Harrison DeSilver, Victor Christ-Janer, William Pederson, and Carl Koch (Techbuilt) (BCA 2008:21).

The Old Quarry neighborhood in the historic town of Guilford, overlooking Long Island Sound and the Thimble Islands, was laid out in the late 1940s, but was not developed until the 1950s when 13 Modern houses were built. The designs of several architects are represented including E. Carleton Granbery and Douglas Orr of New Haven and Tony Smith of New York. The one-story houses have a horizontal emphasis, flat or low pitched roofs, and large expanses of glass (Old Quarry Association 2009). Granbery's Elizabeth Mills Brown and Ralph Brown House (1949–1950) composition consisted of several offset one-story rectangular units with vertical wood sheathing, extensive glazing, and a flat roof with a broad overhang. Tony Smith (1912–1980), who trained at the Chicago Bauhaus, worked for Frank Lloyd Wright, and later became a celebrated abstract painter and sculptor, designed two highly personalized houses for Fred Olsen (1951 and 1952) with multiple rectangular masses on slender steel piers, levels with cutouts, glass window walls, and connecting ramps. In 1955 a house tour of these recently built mid-twentieth-century Modern houses attracted 1,000 visitors (Old Quarry Association 2009). Other Modernist enclaves from the early 1950s include Cooper Road in North Haven and Orchard Hill in Branford, both by architect Peter Hale.

The Village Creek neighborhood embodies mid-twentieth-century Modern architectural aesthetics and progressive social ideals (National Register listed 2010). Located on a small waterfront peninsula in Norwalk, the community consists of approximately 48 modest houses built between 1950 and 1964. Village Creek established a homeowners association governed with bylaws and deed restrictions that encouraged the construction of Modern and Contemporary-style homes and pursued a non-discrimination policy that actively sought African-American residents. Among the architects who designed houses in Village Creek was Percy Ifill (1913–1973) of Ifill Johnson Hanchard, the largest and best-known African-American architectural firm in the Northeast in the 1960s and 1970s. Other architects included Edgar Tafel; Stanley Katz (1915–1978) and Olindo Grossi (1909–2002), both long time teachers at the Pratt Institute and deans of the Pratt Graduate School of Architecture; Victor Lewis (1925–1999) a graduate of the Illinois Technical Institute and a student of Ludwig Mies van der Rohe; Estele Margolis (b. 1924); Norman Cherner (1920–1981); and Klaus Grabe (ca. 1912–unknown) (Bryant 2010).

Materials and Experimentation

Experimentation with modern innovative materials and building technologies was a common trait in mid-twentieth-century Modern house designs, and particularly characterized demonstration and prefabricated houses. In New Canaan, a number of trial ideas were tested including Sherwood Mills & Smith's Durisol House/Risom House (1949) which was one of the initial demonstration houses for Durisol, a fibrous concrete material that is still produced for a wide range of applications. The first owner of the house was the noted Danish furniture designer Jens Risom. Charles Goodman's Alcoa House (1958) was constructed as a showcase house for the Aluminum Company of America, and Edward Durrell Stone's Celanese House (1959) was commissioned by the Celanese Corporation of America to highlight the company's chemical products. John Johansen started working with his first thin shell sprayed concrete house in the mid-1950s, including study projects commissioned by the American Concrete Association.

The development by contemporary Connecticut Modern architects of reproducible, rational houses that could be inexpensively replicated to enrich the life of masses and improve human condition stemmed largely from the ideals of Walter Gropius and the Bauhaus joined with the American drive to produce affordable and comfortable homes with modern technologies and materials. The prototypes designs for the System House (1961, John Black Lee and Harrison DeSilver) and the Wiley Speculative House (1954-55, Philip Johnson), both in New Canaan, and examples of Carl Koch's

Techbuilt semi-prefabricated houses in New Canaan, Westport, and elsewhere illustrate this important experimental aspect of period design.

Landscape Architecture

While a site's natural setting always influenced the design of mid-twentieth-century Modern houses, attention to formal landscape treatments varied among individual Modern architects and projects in Connecticut. Most residential designs incorporated modest landscaping that shaped existing contours and augmented indigenous plantings to provide a suitable approach and to define and punctuate terraces and outdoor living areas adjacent to the house. Residential garden designs by landscape architects favored the paradigms of Modernist architects, such as the creation of highly functional plans achieved through detailed analysis of their intended use, integration of the landscape with buildings, informality, and sensitivity to existing site conditions. In general, formal landscapes are associated with the more expensive houses while augmentation of the existing landscape pertains to most houses.

Among the notable landscape architects practicing in Connecticut was James Rose, a leading landscape Modernist who designed many residential gardens in the state. James Fanning completed the landscapes at Philip Johnson's Glass House (1949–1950), the Warner House (1956, John Johansen), and the Celanese House (1959, Edward Durrell Stone) in New Canaan (BCA 2008; Rose Foundation 2010). Friede Stege (1896–unknown), one of the few women who successfully entered the design professions during the mid-twentieth century, did the gardens at the Ford House (1952–1954, Gates and Ford) in New Canaan. Charles Middeleer (unknown–1989) and Frank Masao Okamura (1911–2006), a world renowned bonsai authority completed the landscape at Tirrana/Rayward House, New Canaan (1956, Frank Lloyd Wright). Also in New Canaan, Paschall Campbell (unknown) designed the garden at the original Campbell House (1952, John Johansen), that was later redesigned as the Goldberg House (1977, Alan Goldberg).

Shifts and Decline of Modernism

Mid-twentieth-century Modern architecture in Connecticut during the 1960s and 1970s exhibited the national trend toward a freer and more sculptural Modernist orientation. An undated house by Fielding L. Bowman (1924–2004) in Greenwich is composed of two adjacent hexagonal masses, each with a central core and angular rooms, connected by a smaller hexagonal hyphen, and uses the Modernist palette of wood frame, fieldstone, and window walls (NCHS 2010). John Fowler's Wasserman House (1963) in Weston uses a complex of vertical towers and balconies on seven half levels around a central glass-enclosed stair to maintain a view of the river. Richard Meier's white concrete Smith House overlooking Long Island Sound in Darien (1965) presents, according to Meier, two interdependent aspects in the concept of house: ideal and abstract, real and analytical, expressed in relation to site, program, circulation, entrance, and open and closed space. He quotes British mathematician, logician and philosopher Alfred North Whitehead (1861–1947), remarking that "'Mankind is now in one of its rare moods of shifting its outlook'. It is the business of architects, as with Whitehead's philosophers and business men, 'to re-create and re-enact a vision of the world, including those elements of reverence and order without which society lapses into a riot, and penetrated through and through with unflinching rationality'" (Eisenman et al. 1972:111-116).

Richard Foster's (1919–2002) house in Wilton (1968) is composed of a round, 72-foot diameter, glass-walled house on a pedestal that pivots on a 14-foot ball bearing assembly in the central stair core, with nine rooms radiating like pie sections. The house is set next to a slope at the front and overlooks a meadow, pond, and woods at the rear. While the house form is unusual, the materials, interest in technology, and setting are mid-twentieth-century Modern. The elegant houses designed by Elroy Webber (1905–2002) in West Hartford combined an embrace of landscape with Modern simplicity. Webber graduated from MIT and designed residences in Massachusetts before moving to West Hartford in the 1970s (Leibin 2010).

Paul Rudolph's Micheels House of 1973 in Westport, demolished in 2007, was organized as an elongated series of interconnecting cubes and slabs built on a sloped site with one end hovering above the ground. Two influential houses in Connecticut heralded the Postmodern design—Robert Venturi's Brant House (1972) in Greenwich, and Robert A.M. Stern's Lang House (1973-1974) in Washington.

IV. Justification of Exceptional Significance (Criteria Consideration G)

Application to Mid-Twentieth-Century Modern Residences in Connecticut, 1930–1979

The historic context period of significance for Mid-Twentieth-Century Modern Residences in Connecticut, 1930–1979 extends beyond the current (in 2010) 50-year cut-off date to 1979 and meets the requirements under Criteria Consideration G for exceptional significance because renowned architects in Connecticut, and the United States actively designed and built Modern houses up until that date. Earlier ending dates for the mid-twentieth century Modern period that are sometimes suggested, such as the mid-1960s or even the early 1970s, do not allow for a full scholarly analysis or understanding of the work of many key architects whose practice and activities continued to influence the profession in Connecticut through the mid- and late 1970s.

As illustration, Ludwig Mies van der Rohe and Walter Gropius died in 1969, Richard Neutra in 1970. Marcel Breuer retired in 1974 and died in 1981; two of his houses in Litchfield, Connecticut, were completed in 1974 (the Stillman House III, which won a Connecticut AIA Award, and the Gagarin House II). Eliot Noyes died in 1976; his late works include the Horton House in Greenwich (1974), the Johnson House in Stonington (1975, a Connecticut AIA Award winner), and the Chivvis House in New Canaan (1977). The latter was his final completed work and is a classic Noyes design. Other architects designing Modern houses in the 1970s included Victor Christ-Janer, John Johansen, and Paul Rudolph.

In general the work of living masters is considered not eligible because their career is ongoing and there has not been a sufficient passage of time to evaluate the work. Most of the initial wave of influential Modern architects coming from Europe or out of Harvard, Yale, and Illinois Institute of Technology, as well as their contemporaries and students (the "first and second waves") are no longer alive. The majority of living architects who designed mid-twentieth-century Modern houses in Connecticut are no longer practicing. Nevertheless, in some instances their work through 1979 clearly belongs within the mid-twentieth-century Modern context and is significant for its architectural design.

Modern houses have special preservation concerns. They are extremely fragile resources and their future as a group is uncertain due to increasing threats. Modern houses are threatened by a lack of both awareness and appreciation. Sufficient inventory information about specific Modern buildings, ranges of buildings, and appropriate historic contexts often does not exist to allow historians and preservationists to evaluate their significance. The public in general and some preservationists do not necessarily consider mid-twentieth-century Modern buildings worthy of serious attention, which leaves the houses increasingly vulnerable to demolition. Many mid-twentieth-century Modern houses are small by today's housing standards and are located on ample lots in desirable areas like Fairfield County, CT, where the land is more valuable than the building. These market pressures lead to the demolition of Modern houses that are replaced by much larger trophy homes. Some sources say that over half the mid-century Modern houses in Connecticut have been demolished, including the Micheels House by Paul Rudolph in Westport (built 1973, demolished 2007). A total of 27 mid-twentieth-century Modern houses in New Canaan, CT, have been demolished, including two by Christ-Janer and thirteen by the "Harvard Five" architects (two Breuer, one Gores, five Johansen, five Noyes) (BCA 2008). Four of the 13 Modern houses in Guilford's Old Quarry neighborhood no longer exist (Old Quarry Association 2009).

Remarking on his work that has been demolished John Johansen has commented "It's like a death in the family" (Gibson 2005). If not torn down, mid-twentieth-century Modern houses can be subject to insensitive and disfiguring alterations and additions, as in the case of several houses by Victor Christ-Janer in New Canaan. Even when preservation of an individual house is desired by an owner, Modern houses can present unique issues as a result of their form and composition. Because they were often constructed using inexpensive or experimental materials, maintenance can be a challenge. Some buildings were even considered to be semi-permanent when built, raising more theoretical questions of preservation.

The historical and architectural importance and the need for preservation of mid-twentieth-century Modern buildings is now being highlighted, as sufficient time has passed to dispassionately view these buildings as historic resources that are highly valuable and seriously threatened as a group. From today's perspective of the early twenty-first century, the mid-twentieth century Modern period has receded into the past, been subject to a period of general neglect, and now comes back into focus more clearly as a profoundly important period in American architecture and history. Numerous projects undertaken by agencies, organizations, and individuals around New England and the United States are directing their attention to filling the gaps in scholarly and practical information concerning mid-twentieth-century Modern architecture. Surveys and research are being conducted to allow informed evaluation of the design and historical context of modern buildings. Great progress is being made to better understand mid-twentieth century building materials, construction systems, and designs to provide owners and architects the information necessary to sustain, renovate, and sensitively modify mid-twentieth-century Modern properties (Prudon 2008; Webb 2001a,b).

A growing number of preservationists, planners, homeowners, and real estate agents are recognizing the value of these houses, even as works of art. The *New York Times* architecture columnist, and often critic of Modernism, Paul Goldberger, summarized the importance of this changing perspective:

> Not the least of values to our culture in the historic preservation movement is its ability to rescue architecture from the cycles of taste that, even in a visually sophisticated society, are still inevitable. It is a way to protect architecture from what we might call the tyranny of the majority – a way to assure that those things that we know have value remain extant, no matter how much their popularity may wax and wane...As modernism itself becomes more clearly a historical period, we are likely to see more and more cases of modern architecture in need of rescue (*New York Times* 3/8/1987).

Inclusion in the National Register is a critical step in the future preservation of mid-twentieth-century Modern houses in Connecticut. The honor associated with listing will encourage appreciation of their intrinsic value by homeowners, communities, and interested citizens. The compiled information will support educational efforts about the houses' architectural and cultural history, helping people to become familiar with the characteristics of Modern houses and understand the architects' and clients' intent. The recognition of distinctive Modern house forms, materials, and settings will enhance protection by offering opportunities to develop technical assistance and shared support for homeowners and those interested in the meeting preservation challenges. This multiple property nomination will serve as the beginning of what will no doubt be a long, rewarding, and exciting inquiry about mid-twentieth-century Modern houses in Connecticut engaging a wide range of individuals and groups.

Nomination Requirements

A justification of exceptional significance is required in each nomination for individual properties whose period of significance began within the past 50 years, or which underwent substantial physical alteration in the less-than-50-year period. However, the fact that the property's significance can be placed within the "Mid-Twentieth-Century Modern Residences in Connecticut, 1930–1979" context and that considerable scholarship exists on the subject provides a

foundation to make a case for exceptional importance and establish registration requirements defining several specific ways the exceptional importance may be established.

The property type analysis provides the opportunity to state how Criteria Consideration G applies to properties, and to define, within the context of the overall theme, what qualities support continuing historical importance beyond the 50-year mark and/or qualify a resource as "exceptionally important." The date of construction as well as the date when a resource took on its current appearance (in the case of a property remodeled or substantially added to within the past 50 years) should be considered in deciding whether Criteria Consideration G needs to be applied and exceptional importance justified.

Properties that are less than 50 years old and are associated with mid-twentieth-century Modern residential architecture in Connecticut may have exceptional importance as an outstanding representation of a particular property type or as a highly distinguished example that powerfully embodies the values associated with this period and movement in architecture. Some properties may have particularly strong and important associations with significant events, architects, property owners, and patrons of Modern buildings that were instrumental in forging or maintaining the state or local community's identity. Exceptional properties might include a particularly exemplary example or a "rare" and intact survivor of a period of construction or type of construction, or a property of extraordinarily high integrity.

Section number: F

Associated Property Types

The Associated Property Types for Mid-Twentieth-Century Modern Residences in Connecticut have been classified within two broad, interrelated categories defined by the building's physical form and the source of the architect's design inspiration. Modern houses are primarily identified based on common physical characteristics that are visible to the observer. Secondarily, the buildings possess associative attributes that are reflected in their design and are derived from the intent to create a "one-off," unique commission; a prefabricated or semi-prefabricated "kit of parts"; or a widely disseminated, repeatable plan. The designs of most individual architects exhibit specific volume and plan traits, while the historical record documents how the design was developed. No commonly used, general overall typology for mid-twentieth-century Modern houses was identified in the literature or through discussions with individual architects and architectural historians who are knowledgeable about mid-twentieth-century Modern houses in the Northeast region. Consequently this framework has been logically developed from field and research observations and analyses to serve as the basis for the property type groups identified in the Connecticut Modern houses multiple property nomination. The types are formulated to be useful for future survey identification and evaluation efforts throughout the state. Modern house types are defined first by their physical attributes and second by consideration of the underlying design objective. The one exception is Prefabricated houses, a specific manufactured and highly recognizable semi-prefabricated house that warrants recognition as a separate type. Each of the Prefabricated subtypes will also meet one of the form types. Additional subtypes may be identified and described in the future if prevalent variations of a type are noted in a community or region of Connecticut. All of the property types are associated with the theme of mid-twentieth-century Modern residential architecture.

Properties include two major groups of residential buildings. Houses and cottages are one or two stories with multiple bedrooms, kitchen, and one or more common areas. Studios and guesthouses are relatively small one-story buildings containing a single multi-purpose room, and sometimes have a bathroom and small sleeping and kitchen areas. Properties were constructed between 1930 and 1979 and exhibit the characteristics of mid-twentieth-century domestic architectural design, usually representing the work of a national, regional, or local architect. Characteristics shared by all property types are the use of inexpensive, local, and/or modern materials and contemporary construction methods, a conscious design and plan for contemporary living often including a holistic incorporation of all the arts, and an integrated relationship among the building, site, setting, and the outdoors. Each mid-twentieth-century Modern residence in Connecticut represents a specific property type or subtype and typically embodies the design aesthetics of a particular architect. Some examples also reflect an experimental or progressive effort to employ a completely new and innovative architectural solution in building technology and/or design as articulated in structure, materials, spatial arrangement, program, or aesthetic.

The following six property types for mid-twentieth-century Modern residential architecture in Connecticut have been identified:

Name of Property Type: F.1 Box

Description

The Box is a single, one-story, narrow rectangular form with a flat or very low pitched shed roof, and may have a projecting or recessed element such as a porch or entrance. The box presents as a balanced composition, but has some element of asymmetry visible from the exterior. The "floating" Box appears suspended in midair either raised on piers or

cantilevered from a raised basement foundation on steeply sloped sites. The "grounded" Box rests on a pad at the same elevation of the surrounding terrain. Grounded Box buildings constructed into a sloped site may appear as two stories on one elevation. Structural framing is wood or steel, and sheathing is all glass or a combination of glass, wood or composite panels. Concrete and fieldstone foundations and support walls are used. Some Box type houses have received later additions that expanded their plan, but left the original massing clearly identifiable.

The building is the purest and absolute minimalist form that is stripped of ornamentation revealing its essential materials, structural components, and volume. Windows predominate either on all elevations or as glazing emphasis on the private, rear side oriented to natural views. Expanses of windows capture light and blur division between inside and outside. In Connecticut houses are usually set in woods and meadows, often with view of a pond, stream, or river.

Interior plans display an open-concept main living space with private (bed/bath) areas at one or both ends, or are completely open with private areas defined or partially separated by horizontally emphasized built-in furniture and a substantial chimney.

No prefabricated or widely reproduced plan subtypes of the Box type have been identified in Connecticut, with the notable exception of the Breuer House II, New Canaan which is the first built prototype example of Breuer's personal "long house" but was not a design necessarily intended for popular use. The Box was an early and pivotal manifestation of postwar Modernism and was often used by individual architects in the 1940s and 50s to establish their Modern design credentials.

The classic example of the Box in Connecticut is Philip Johnson's Glass House in New Canaan (NHL). The Breuer House II in New Canaan and the Stillman House I in Litchfield (both Marcel Breuer), as well as the Lee House I (John Black Lee), the Mill House II (Willis Mills of Sherwood, Mills & Smith), the Parsons House (Hugh Smallen), and the Goldberg House (Alan Goldberg) in New Canaan also represent this type.

Significance Statement

The Box represents the most pristine, stripped down, iconic, and elegant and/or efficient (emphasis varies) manifestation of mid-twentieth-century Modern design tenets. The minimalist box with its planar simplicity epitomizes the Modern ideal as transcended from European Bauhaus principals and captured in Ludwig Mies van der Rohe's statement that "less is more" and Walter Gropius's concept of a "new architecture." The box established architectural form as a symbol of the mid-twentieth-century Modern canon. This type was usually designed by a well-known architect as a radical statement and sometimes as a reproducible prototype.

Registration Requirements

In general, eligible Box properties possess integrity of design intent, architectural form, plan, texture, and materials. They retain integrity of site and relationship to the landscape and setting. Typically they are associated with a known architect, and always evoke the ideals of mid-twentieth-century Modern architecture and the intellectual, artistic, leisure, and community life of Connecticut. A record of publication in contemporary print media and receipt of design awards enhances significance but is not a requirement.

Modest modifications, replacement in kind, and some deterioration of materials and finishes over time are to be expected. Replacement of original single glazed windows with double-glazed or insulated glass windows is an acceptable alteration as long as window openings and configuration remain intact. Sensitively designed additions that do not detract from the

visual effect of the original design intent may be considered benign and in some cases may achieve significance in their own right. Conversion of attached garages into living space and interior updating of kitchens and bathrooms are common and admissible. Minor changes made to secondary buildings; new construction of garages, carports, guesthouses or studios, swimming pools, and similar structures; and modified landscape settings are generally considered to be acceptable.

All eligible properties will meet Criterion C for their significance in the area of Architecture as a distinctive example possessing the characteristics of mid-twentieth-century Modern residential design for this property type. In addition, some eligible properties may be the documented work of a Modern period architect or designer whose life and work are well documented. Some properties may exhibit notably high artistic values of Modern design and materials, including the use of experimental and innovative technologies. A structure is eligible as a specimen of its mid-twentieth-century Modern type and period of construction if it is an important example of building practices and design between 1930 and 1979. For properties that represent the variation, evolution, or transition of construction types, it must be demonstrated that these shifts were an important phase in the architectural development of mid-twentieth-century Modern residential architecture in the state or local community and that it had an impact as evidenced by later buildings. A property is not eligible, however, simply because it has been identified as the only such property ever fabricated; it must be demonstrated to be significant as well. Examples may include a particularly intact building by a notable architect or using an important innovative technology. Certain properties may clearly reflect the characteristics of the Modern style, but lack the distinction to qualify for individual eligibility. These properties will meet Criterion C if they are part of a distinguishable grouping of buildings that constitute an eligible historical entity. Some properties may also carry secondary significant associations in the fields of Art, Landscape Architecture, and/or Engineering.

Most eligible mid-twentieth-century Modern residential properties will also possess significance in the area of Social History, meeting Criterion A for their embodiment of postwar Modern lifestyle and culture within the community or the state. Advocates of Modern design valued social networks of progressive, intellectual, and artistic individuals within and among communities, as well as the ideals of a life simplified by technology and set in a natural environment, as exemplified by "functional" houses with open plans and interconnection of inside and outside spaces.

Mid-twentieth-century Modern residential properties may meet Criterion B if the associations with a highly important architect or owner meet the necessary significance standards as one of the most notable properties affiliated with that prominent and influential individual person.

Individual properties are evaluated within the statewide historic context for mid-twentieth-century Modern residences in Connecticut and may possess significance at either the local, state, or national level. Locally significant properties are important within the sphere of a local community or area. Properties of sate significance have demonstrated historical influence and associations with mid-twentieth-century Modern design themes across Connecticut. In order to possess a national level of significance, a property must be of exceptional value and contribute to understanding of the nationwide impact of mid-twentieth-century Modernism in residential architecture.

Properties that are less than 50 years old or that underwent substantial physical modification in the less-than-50-year-old period must meet National Register Criteria Consideration G for exceptional significance achieved in less than 50 years. Criteria Consideration G is discussed at the end of Section H. Historic Context of this MPDF.

Name of Property Type: F.2 Geometric I

Description

The Geometric I type is presented as a one- or two-story rectangular or square form consisting of single or multiple geometric units with flat, shed, or gable roofs. Geometric I houses are more complex than and distinct from the absolute minimalist Box type. Geometric I houses exhibit more varieties of scale, emphasis on alternating solids and glazed or open voids, and additional building sections than Box houses. Patterns of contrasting solids and voids may be expressed within a single volume or on an elevation. Recesses, decks and balconies, breezeways, wide roof overhangs, and courtyards create a dynamic dialogue between light and shadow and explore the intersection of inside and outside spaces.

The composition is asymmetrical but balanced when the program and plan organically create the shape (as courtyard, H-plan, L-plan, bi-nuclear, and bi-level houses) or symmetrical when the house's strict rectilinear or cubic geometry dictates the plan layout. The main house level is set at grade or on a raised basement/first floor, commonly configured against a hillside. Ramped entrances occasionally appear in houses built on sloped sites. Construction is predominantly wood frame sheathed in smooth surfaces of natural or stained flush or channeled tongue-and-groove wood boards. Buildings rest on local fieldstone or concrete foundations, or on concrete or metal footings. Fieldstone and concrete were also used for building walls and freestanding privacy walls. A few examples have steel structural systems, and siding can be wood shingles, composite panels, concrete, stucco, brick, or experimental materials.

Horizontal lines are accentuated by large full glass panels and ribbon windows that allow light and views into the house. Glass walls often slide open to connect the interior and exterior, emphasized by continuous tile or slate flooring. The Geometric I type includes houses whose original design incorporates preexisting buildings such as an assemblage of war surplus prefabricated structures, or that grow from a single structure such as a barn or cottage, if the overall design intent is Modern. In Connecticut the houses are usually set in woods and meadows, often with view of a pond, stream, or river, and are also found in urban settings. They typically occupy uneven and rocky terrain.

Interior plans contain differentiated social and private spaces often separated in concurrently designed wings or levels of the house. Wings were sometimes included in the original design and planned to be executed in phased construction. Designs for prefabricated or widely available reproducible house plans are most commonly consistent with the Geometric I type. This highly adaptable form also appears as the majority of architect-designed unique commission houses. Among the numerous examples of the mid-twentieth century Geometric I type are houses by Marcel Breuer, Eliot Noyes, John Black Lee, John Johansen, and many other architects working in Connecticut. Examples located in New Canaan include the Durisol/Risom House (Willis Mills of Sherwood Wills & Smith), the Elinor and Sherman Ford House (Gates and Ford), the Beaven Mills House and Hall House (both William Pederson), the System House (John Black Lee and Harrison DeSilver), the Russell Ford House (Edward Winter and Russell Ford), the Tatum House (Hugh Smallen), the Papp House (Lazlo Papp), and the Chivvis House (Eliot Noyes).

Significance Statement

The square or rectangular geometric form house is significant as the most widely appearing, variable, and versatile expression of the mid-twentieth-century American Modern canon. It embodies the evolution of the Modern design paradigm from European and Bauhaus antecedents, manifesting the regional interpretation of the individual designer. Examples were designed by nationally known and regional architects as eminently livable houses and sometimes as a reproducible prototype. Many of these houses embody experimental ideas manifested in different residential iterations over time, or tested on a small scale prior to being incorporated into larger projects.

Registration Requirements

In general eligible Geometric I properties possess integrity of design intent, architectural form, plan, texture, and materials. They retain integrity of site and relationship to the landscape and setting. Typically they are associated with a known architect, and always evoke the ideals of mid-twentieth-century Modern architecture and the intellectual, artistic, leisure, and community life of Connecticut. A record of publication in contemporary print media and receipt of design awards enhances significance but is not a requirement.

Modest modifications, replacement in kind, and some deterioration of materials and finishes over time are to be expected. Replacement of original single glazed windows with double-glazed or insulated glass windows is an acceptable alteration as long as window openings and configuration remain intact. Sensitively designed additions that do not detract from the visual effect of the original design intent may be considered benign and in some cases may achieve significance in their own right. Conversion of attached garages into living space and interior updating of kitchens and bathrooms are common and admissible. Minor changes made to secondary buildings; new construction of garages, carports, guesthouses or studios, swimming pools, and similar structures; and modified landscape settings are generally considered to be acceptable.

All eligible properties will meet Criterion C for their significance in the area of Architecture as a distinctive example possessing the characteristics of mid-twentieth-century Modern residential design for this property type. In addition, some eligible properties may be the documented work of a Modern period architect or designer whose life and work are well documented. Some properties may exhibit notably high artistic values of Modern design and materials, including the use of experimental and innovative technologies. A structure is eligible as a specimen of its mid-twentieth-century Modern type and period of construction if it is an important example of building practices and design between 1930 and 1979. For properties that represent the variation, evolution, or transition of construction types, it must be demonstrated that these shifts were an important phase in the architectural development of mid-twentieth-century Modern residential architecture in the state or local community and that it had an impact as evidenced by later buildings. A property is not eligible, however, simply because it has been identified as the only such property ever fabricated; it must be demonstrated to be significant as well. Examples may include a particularly intact building by a notable architect or using an important innovative technology. Certain properties may clearly reflect the characteristics of the Modern style, but lack the distinction to qualify for individual eligibility. These properties will meet Criterion C if they are part of a distinguishable grouping of buildings that constitute an eligible historical entity. Some properties may also carry secondary significant associations in the fields of Art, Landscape Architecture, and/or Engineering.

Most eligible mid-twentieth-century Modern residential properties will also possess significance in the area of Social History, meeting Criterion A for their embodiment of postwar Modern life style and culture within the community or the State. Advocates of Modern design valued social networks of progressive, intellectual, and artistic individuals within and among communities, as well as the ideals of a life simplified by technology and set in a natural environment, as exemplified by "functional" houses with open plans and interconnection of inside and outside spaces.

Mid-twentieth-century Modern residential properties may meet Criterion B if the associations with a highly important architect or owner meet the necessary significance standards as one of the most notable properties affiliated with that prominent and influential individual person.

Individual properties are evaluated within the statewide historic context for mid-twentieth-century Modern residences in Connecticut and may possess significance at either the local, State, or national level. Locally significant properties are

important within the sphere of a local community or area. Properties of state significance have demonstrated historical influence and associations with mid-twentieth-century Modern design themes across Connecticut. In order to possess a national level of significance, a property must be of exceptional value and contribute to understanding of the nationwide impact of mid-twentieth-century Modernism in residential architecture.

Properties that are less than 50 years old or that underwent substantial physical modification in the less-than-50-year-old period must meet National Register Criteria Consideration G for exceptional significance achieved in less than 50 years. Criteria Consideration G is discussed at the end of Section H. Historic Context of this MPDF.

Name of Property Type: F.3 Geometric II

Description

The Geometric II form is based on organic curves and/or complex angular geometries. It is similar to the right angled Geometric I form but with a stronger tendency to be sculptural. Sweeping convex- or concave-curved elevations, circular forms, and diagonally oriented intersecting angles are hallmarks of this type. Refer to the Geometric I form above for description details.

Interior plans incorporate sculptural detail elements and built-ins that repeat a consistent theme. The design can result in a sprawling plan with a circular or radial circulation pattern and slight level changes, including "sunken rooms." No prefabricated or widely reproduced plan subtypes of the Geometric II type have been identified in Connecticut. It was most commonly used in a relatively small number of architect-designed unique commission houses in the state. In Connecticut, Frank Lloyd Wright's Tirrana/Rayward House and Allan Gelbin's Murphy House and Leuthold House in New Canaan illustrate this property type.

Significance Statement

The Geometric II form house is significant as a variant of the most widely appearing, variable, and versatile expression of the Modern canon, manifesting the regional interpretation of the individual designer. They were designed by nationally known and regional architects as eminently livable houses and were usually singular designs. Whereas the Geometric I houses is traced to the Bauhaus in Germany, this group constitutes a design type that drew inspiration both from the Modern movement and from the work of the American architect Frank Lloyd Wright.

Registration Requirements

In general eligible Geometric II properties possess integrity of design intent, architectural form, plan, texture, and materials. They retain integrity of site and relationship to the landscape and setting. Typically they are associated with a known architect, and always evoke the ideals of mid-twentieth-century Modern architecture and the intellectual, artistic, leisure, and community life of Connecticut. A record of publication in contemporary print media and receipt of design awards enhances significance but is not a requirement.

Modest modifications, replacement in kind, and some deterioration of materials and finishes over time are to be expected. Replacement of original single glazed windows with double-glazed or insulated glass windows is an acceptable alteration as long as window openings and configuration remain intact. Sensitively designed additions that do not detract from the visual effect of the original design intent may be considered benign and in some cases may achieve significance in their own right. Conversion of attached garages into living space and interior updating of kitchens and bathrooms are common

and admissible. Minor changes made to secondary buildings; new construction of garages, carports, guesthouses or studios, swimming pools, and similar structures; and modified landscape settings are generally considered to be acceptable.

All eligible properties will meet Criterion C for their significance in the area of Architecture as a distinctive example possessing the characteristics of mid-twentieth-century Modern residential design for this property type. In addition, some eligible properties may be the documented work of a Modern period architect or designer whose life and work are well documented. Some properties may exhibit notably high artistic values of Modern design and materials, including the use of experimental and innovative technologies. A structure is eligible as a specimen of its mid-twentieth-century Modern type and period of construction if it is an important example of building practices and design between 1930 and 1979. For properties that represent the variation, evolution, or transition of construction types, it must be demonstrated that these shifts were an important phase in the architectural development of mid-twentieth-century Modern residential architecture in the state or local community and that it had an impact as evidenced by later buildings. A property is not eligible, however, simply because it has been identified as the only such property ever fabricated; it must be demonstrated to be significant as well. Examples may include a particularly intact building by a notable architect or using an important innovative technology. Certain properties may clearly reflect the characteristics of the Modern style, but lack the distinction to qualify for individual eligibility. These properties will meet Criterion C if they are part of a distinguishable grouping of buildings that constitute an eligible historical entity. Some properties may also carry secondary significant associations in the fields of Art, Landscape Architecture, and/or Engineering.

Most eligible mid-twentieth-century Modern residential properties will also possess significance in the area of Social History, meeting Criterion A for their embodiment of postwar Modern life style and culture within the community or the State. Advocates of Modern design valued social networks of progressive, intellectual, and artistic individuals within and among communities, as well as the ideals of a life simplified by technology and set in a natural environment, as exemplified by "functional" houses with open plans and interconnection of inside and outside spaces.

Mid-twentieth-century Modern residential properties may meet Criterion B if the associations with a highly important architect or owner meet the necessary significance standards as one of the most notable properties affiliated with that prominent and influential individual person.

Individual properties are evaluated within the statewide historic context for mid-twentieth-century Modern residences in Connecticut and may possess significance at either the local, State, or national level. Locally significant properties are important within the sphere of a local community or area. Properties of state significance have demonstrated historical influence and associations with mid-twentieth-century Modern design themes across Connecticut. In order to possess a national level of significance, a property must be of exceptional value and contribute to understanding of the nationwide impact of mid-twentieth-century Modernism in residential architecture.

Properties that are less than 50 years old or that underwent substantial physical modification in the less-than-50-year-old period must meet National Register Criteria Consideration G for exceptional significance achieved in less than 50 years. Criteria Consideration G is discussed at the end of Section H. Historic Context of this MPDF.

Name of Property Type: F.4 Sectional

Description

The Sectional houses are similar to the Geometric I and Geometric II but incorporate design elements with slightly more abstraction, while remaining clearly within the scope of modern designs. The forms of sectional houses are derived from multiple attached units with varying floor levels and separate roofs. Roof forms are relatively complex or dramatic and can incorporate steep pitches, and varying orientations or planes. These houses are typically wood frame and at least one-and-one-half stories tall. In Connecticut, the houses are usually set in woods, meadows, and on sloped sites, often with view of a pond, stream, or river.

Interior plans are typically irregular and can incorporate lofted spaces, balconies, pass-throughs, interior or exterior bridges, and sculptural ceiling planes. No prefabricated or widely reproduced plan subtypes of the Sectional type have been identified in Connecticut. It was most commonly used in a relatively small number of architect-designed unique commission houses in the state. Sectional houses in New Canaan include Victor Christ-Janer's Brandon House, Gary Lindstrom's Lindstrom House, and Richard Bergmann's Latham House. These houses and other examples represent this type in Connecticut.

Significance Statement

The Sectional houses include more sculptural elements than the Box, Geometric I or Geometric II houses and were built throughout the period of Modern design starting in the 1950s. They are significant in reflecting the range of regional and individual interpretations of the Modern canon.

Registration Requirements

In general eligible Sectional properties possess integrity of design intent, architectural form, plan, texture, and materials. They retain integrity of site and relationship to the landscape and setting. Typically they are associated with a known architect, and always evoke the ideals of mid-twentieth-century Modern architecture and the intellectual, artistic, leisure, and community life of Connecticut. A record of publication in contemporary print media and receipt of design awards enhances significance but is not a requirement.

Modest modifications, replacement in kind, and some deterioration of materials and finishes over time are to be expected. Replacement of original single glazed windows with double-glazed or insulated glass windows is an acceptable alteration as long as window openings and configuration remain intact. Sensitively designed additions that do not detract from the visual effect of the original design intent may be considered benign and in some cases may achieve significance in their own right. Conversion of attached garages into living space and interior updating of kitchens and bathrooms are common and admissible. Minor changes made to secondary buildings; new construction of garages, carports, guesthouses or studios, swimming pools, and similar structures; and modified landscape settings are generally considered to be acceptable.

All eligible properties will meet Criterion C for their significance in the area of Architecture as a distinctive example possessing the characteristics of mid-twentieth-century Modern residential design for this property type. In addition, some eligible properties may be the documented work of a Modern period architect or designer whose life and work are well documented. Some properties may exhibit notably high artistic values of Modern design and materials, including the use of experimental and innovative technologies. A structure is eligible as a specimen of its mid-twentieth-century

Modern type and period of construction if it is an important example of building practices and design between 1930 and 1979. For properties that represent the variation, evolution, or transition of construction types, it must be demonstrated that these shifts were an important phase in the architectural development of mid-twentieth-century Modern residential architecture in the state or local community and that it had an impact as evidenced by later buildings. A property is not eligible, however, simply because it has been identified as the only such property ever fabricated; it must be demonstrated to be significant as well. Examples may include a particularly intact building by a notable architect or using an important innovative technology. Certain properties may clearly reflect the characteristics of the Modern style, but lack the distinction to qualify for individual eligibility. These properties will meet Criterion C if they are part of a distinguishable grouping of buildings that constitute an eligible historical entity. Some properties may also carry secondary significant associations in the fields of Art, Landscape Architecture, and/or Engineering.

Most eligible mid-twentieth-century Modern residential properties will also possess significance in the area of Social History, meeting Criterion A for their embodiment of postwar Modern life style and culture within the community or the State. Advocates of Modern design valued social networks of progressive, intellectual, and artistic individuals within and among communities, as well as the ideals of a life simplified by technology and set in a natural environment, as exemplified by "functional" houses with open plans and interconnection of inside and outside spaces.

Mid-twentieth-century Modern residential properties may meet Criterion B if the associations with a highly important architect or owner meet the necessary significance standards as one of the most notable properties affiliated with that prominent and influential individual person.

Individual properties are evaluated within the statewide historic context for mid-twentieth-century Modern residences in Connecticut and may possess significance at either the local, State, or national level. Locally significant properties are important within the sphere of a local community or area. Properties of state significance have demonstrated historical influence and associations with mid-twentieth-century Modern design themes across Connecticut. In order to possess a national level of significance, a property must be of exceptional value and contribute to understanding of the nationwide impact of mid-twentieth-century Modernism in residential architecture.

Properties that are less than 50 years old or that underwent substantial physical modification in the less-than-50-year-old period must meet National Register Criteria Consideration G for exceptional significance achieved in less than 50 years. Criteria Consideration G is discussed at the end of Section H. Historic Context of this MPDF.

Name of Property Type: F.5 Figurative/Sculptural

Description

The Figurative/Sculptural form buildings are composed of a free or abstract arrangement of articulated sculptural masses, executed in wood, masonry, or concrete. Some examples are monumental and vertical. The definition between the interior and exterior spaces is emphasized by and views may be regulated by a mix of narrow vertical and wide horizontal windows. In Connecticut, these houses are set in woods, meadows, rocky knolls, and cultivated "orchard" rural settings and are also found in urban locations.

Interior plans display a dynamic plan with clear separation between private and public use spaces and low level changes between different spaces. No prefabricated or widely reproduced plan subtypes of the Figurative/Sculptural type have been identified in Connecticut. It was most commonly used in a relatively small number of architect-designed unique

commission houses in the state. Residential examples in Connecticut by Edward Larrabee Barnes, John Johansen, Ulrich Franzen, and Paul Rudolph represent this type.

Significance Statement

The Figurative/Sculptural house type is significant as a demonstration of the diversity within the Modern movement in the direction of varied sculptural and expressive forms regulated by architectural use and function.

Registration Requirements

In general, eligible Figurative/Sculptural properties possess integrity of design intent, architectural form, plan, texture, and materials. They retain integrity of site and relationship to the landscape and setting. Typically they are associated with a known architect, and always evoke the ideals of mid-twentieth-century Modern architecture and the intellectual, artistic, leisure, and community life of Connecticut. A record of publication in contemporary print media and receipt of design awards enhances significance but is not a requirement.

Modest modifications, replacement in kind, and some deterioration of materials and finishes over time are to be expected. Replacement of original single glazed windows with double-glazed or insulated glass windows is an acceptable alteration as long as window openings and configuration remain intact. Sensitively designed additions that do not detract from the visual effect of the original design intent may be considered benign and in some cases may achieve significance in their own right. Conversion of attached garages into living space and interior updating of kitchens and bathrooms are common and admissible. Minor changes made to secondary buildings; new construction of garages, carports, guesthouses or studios, swimming pools, and similar structures; and modified landscape settings are generally considered to be acceptable.

All eligible properties will meet Criterion C for their significance in the area of Architecture as a distinctive example possessing the characteristics of mid-twentieth-century Modern residential design for this property type. In addition, some eligible properties may be the documented work of a Modern period architect or designer whose life and work are well documented. Some properties may exhibit notably high artistic values of Modern design and materials, including the use of experimental and innovative technologies. A structure is eligible as a specimen of its mid-twentieth-century Modern type and period of construction if it is an important example of building practices and design between 1930 and 1979. For properties that represent the variation, evolution, or transition of construction types, it must be demonstrated that these shifts were an important phase in the architectural development of mid-twentieth-century Modern residential architecture in the state or local community and that it had an impact as evidenced by later buildings. A property is not eligible, however, simply because it has been identified as the only such property ever fabricated; it must be demonstrated to be significant as well. Examples may include a particularly intact building by a notable architect or using an important innovative technology. Certain properties may clearly reflect the characteristics of the Modern style, but lack the distinction to qualify for individual eligibility. These properties will meet Criterion C if they are part of a distinguishable grouping of buildings that constitute an eligible historical entity. Some properties may also carry secondary significant associations in the fields of Art, Landscape Architecture, and/or Engineering.

Most eligible mid-twentieth-century Modern residential properties will also possess significance in the area of Social History, meeting Criterion A for their embodiment of postwar Modern life style and culture within the community or the State. Advocates of Modern design valued social networks of progressive, intellectual, and artistic individuals within and among communities, as well as the ideals of a life simplified by technology and set in a natural environment, as exemplified by "functional" houses with open plans and interconnection of inside and outside spaces.

Mid-twentieth-century Modern residential properties may meet Criterion B if the associations with a highly important architect or owner meet the necessary significance standards as one of the most notable properties affiliated with that prominent and influential individual person.

Individual properties are evaluated within the statewide historic context for mid-twentieth-century Modern residences in Connecticut and may possess significance at either the local, State, or national level. Locally significant properties are important within the sphere of a local community or area. Properties of state significance have demonstrated historical influence and associations with mid-twentieth-century Modern design themes across Connecticut. In order to possess a national level of significance, a property must be of exceptional value and contribute to understanding of the nationwide impact of mid-twentieth-century Modernism in residential architecture.

Properties that are less than 50 years old or that underwent substantial physical modification in the less-than-50-year-old period must meet National Register Criteria Consideration G for exceptional significance achieved in less than 50 years. Criteria Consideration G is discussed at the end of Section H. Historic Context of this MPDF.

Name of Property Type: F.6 Prefabricated

Description

Prefabricated houses range from an assemblage of factory built, standardized construction units, sometimes referred to as semi-prefabricated, to complete manufactured houses. The form, plan, and materials are variable by subtype. Emphasis is on simplicity and repetition, integrating the Modern design into a simple, stripped down form. Some early examples were constructed of steel, but for the majority of mid-twentieth-century demountable houses, wood frame structure with modular plywood and composite panel sheathing, or a similar wood-based system are typical. In Connecticut, the houses are usually set in woods, meadows, and rocky knolls, often with view of a pond, stream, or river, and are also found in urban settings.

The Techbuilt subtype consists of a standardized post-and-beam frame variant, concrete block foundation, and modular wall panels composed of wood framing members sandwiched between sheets of plywood. This system incorporates windows of the same dimensions as the standard wall panels so that the design could be easily customizable through the flexible placement of fenestration within the overall grid. Additional customization was achieved by flipping the plan or changing the orientation of the building on the site.

Interior plans have a basic layout of public and private spaces. The standard design can be modified, and the orientation of the floor plan can be flipped. Modular wall systems allow for variation in fenestration pattern and egress locations.

Examples of mid-twentieth-century Modern prefabricated house subtypes with known examples in Connecticut include 1930s prefabricated steel houses by American Home and General Homes represented by the Winslow Ames House and the Steel House in New London (both National Register listed), and in the 1940s, by Carl Koch's Techbuilt company with examples in New Canaan and Westport. Other prefabricated models may exist in the state, including William Berkes's

Deck House. At least one example by Victor Christ-Janer of a house assembled from surplus military barracks is known in New Canaan.[7]

Significance Statement

The Prefabricated type is significant for using industrial technologies, variable modular design, and association with the Modern interest in developing affordable and reproducible houses. The advancement of prefabricated Modern design coincided with advancements in industrial and building technologies, encouraged by wartime federal investments in the development of new materials, efforts to improve standardization, and the national economic and housing construction booms following World War I and World War II.

Registration Requirements

In general eligible Prefabricated properties possess integrity of design intent, architectural form, plan, texture, and materials. They retain integrity of site and relationship to the landscape and setting. Typically they are associated with a known architect, and always evoke the ideals of mid-twentieth-century Modern architecture and the intellectual, artistic, leisure, and community life of Connecticut. A record of publication in contemporary print media and receipt of design awards enhances significance but is not a requirement.

Modest modifications, replacement in kind, and some deterioration of materials and finishes over time are to be expected. Replacement of original single glazed windows with double-glazed or insulated glass windows is an acceptable alteration as long as window openings and configuration remain intact. Sensitively designed additions that do not detract from the visual effect of the original design intent may be considered benign and in some cases may achieve significance in their own right. Conversion of attached garages into living space and interior updating of kitchens and bathrooms are common and admissible. Minor changes made to secondary buildings; new construction of garages, carports, guesthouses or studios, swimming pools, and similar structures; and modified landscape settings are generally considered to be acceptable.

All eligible properties will meet Criterion C for their significance in the area of Architecture as a distinctive example possessing the characteristics of mid-twentieth-century Modern residential design for this property type. In addition, some eligible properties may be the documented work of a Modern period architect or designer whose life and work are well documented. Some properties may exhibit notably high artistic values of Modern design and materials, including the use of experimental and innovative technologies. A structure is eligible as a specimen of its mid-twentieth-century Modern type and period of construction if it is an important example of building practices and design between 1930 and 1979. For properties that represent the variation, evolution, or transition of construction types, it must be demonstrated that these shifts were an important phase in the architectural development of mid-twentieth-century Modern residential architecture in the state or local community and that it had an impact as evidenced by later buildings. A property is not eligible, however, simply because it has been identified as the only such property ever fabricated; it must be demonstrated to be significant as well. Examples may include a particularly intact building by a notable architect or using an important innovative technology. Certain properties may clearly reflect the characteristics of the Modern style, but lack the distinction to qualify for individual eligibility. These properties will meet Criterion C if they are part of a distinguishable

[7] Note: The Lustron house, a prefabricated house type of steel clad in porcelain enameled panels built from 1947 to 1950 had an intentionally traditional design to appeal to a wider audience, rather than modern. Therefore they have a different historic context than the mid-twentieth-century Modern residences.

grouping of buildings that constitute an eligible historical entity. Some properties may also carry secondary significant associations in the fields of Art, Landscape Architecture, and/or Engineering.

Most eligible mid-twentieth-century Modern residential properties will also possess significance in the area of Social History, meeting Criterion A for their embodiment of postwar Modern life style and culture within the community or the state. Advocates of Modern design valued social networks of progressive, intellectual, and artistic individuals within and among communities, as well as the ideals of a life simplified by technology and set in a natural environment, as exemplified by "functional" houses with open plans and interconnection of inside and outside spaces.

Mid-twentieth-century Modern residential properties may meet Criterion B if the associations with a highly important architect or owner meet the necessary significance standards as one of the most notable properties affiliated with that prominent and influential individual person.

Individual properties are evaluated within the statewide historic context for mid-twentieth-century Modern residences in Connecticut and may possess significance at either the local, state, or national level. Locally significant properties are important within the sphere of a local community or area. Properties of state significance have demonstrated historical influence and associations with mid-twentieth-century Modern design themes across Connecticut. In order to possess a national level of significance, a property must be of exceptional value and contribute to understanding of the nationwide impact of mid-twentieth-century Modernism in residential architecture.

Properties that are less than 50 years old or that underwent substantial physical modification in the less-than-50-year-old period must meet National Register Criteria Consideration G for exceptional significance achieved in less than 50 years. Criteria Consideration G is discussed at the end of Section H. Historic Context of this MPDF.

Shared Characteristics of All Property Types

Outbuildings

All of the mid-twentieth-century Modern residences property types include examples of outbuildings associated with the primary residential building. They include guesthouses or studios, single and multi-car detached garages, carports, sheds, and pool houses that may have been constructed concurrently with the house or added later. Secondary buildings that contribute to the historic and architectural significance of a modern residence will fall within the period of significance and retain integrity of location, design, setting, workmanship, feeling, and association, as demonstrated through their design and materials, and their visual and spatial relationship to the principal building.

Landscape and Setting

The landscape settings of the mid-twentieth-century Modern residences property types are typically naturalistic with minimal formal landscaping, placing emphasis on appreciating and enhancing views of the existing or modified topography, vegetation, and water elements. Modest houses are more apt to have left the existing landscape intact, while more substantial houses are more likely to have formal designed landscape plans. Both native and cultivated garden plantings including groundcovers, flowers, shrubs and trees appear in varying degrees. Key aspects of setting and landscape include the treatment of driveway and walkway approaches, entrance area, terraces, and views from the primary vantage points within the house. Integrity of the landscape site and the setting of the house are expected to be assessed within the context of the original design intent, since changes in plant materials are inevitable over time and modifications to the landscape may have occurred. Some houses have landscapes designed by a recognized landscape architect.

Section number: G

SECTION G. Geographical Data

The geographic area is the legal limits of the State of Connecticut, including 169 municipalities. Boundaries of individual nominations will typically follow property lot lines to include buildings and the surrounding landscape.

SECTION H. Summary of Identification and Evaluation Methods

Introduction

The multiple property nomination was prepared as a framework for the documentation, appreciation, and current and future National Register evaluation of mid-twentieth-century Modern residential architecture throughout Connecticut. The MPDF contains a comprehensive statewide historic context statement and associated individual nominations for a sample of mid-twentieth-century Modern houses in the Town of New Canaan, which was the town chosen as the case study application of National Register evaluation and documentation at the local level. This documentation is intended to build momentum for the identification, preservation, and care of mid-twentieth-century Modern buildings, and enable the future completion of additional National Register nominations in the state, under the MPDF statewide context.

The methodology developed for the project incorporated a two-part approach that addressed informational and analytical needs of the statewide and local case study. The statewide component involved the collection of data about the age, distribution/location, type, and architect affiliation of houses in Connecticut to aid in the development of an inclusive historic context for the evaluation of Connecticut's mid-twentieth-century Modern houses. The process included outreach to other knowledgeable academic, professional, and volunteer parties in the region who are currently engaged in the research or advocacy of Modern resources. Research included a compilation of identifying information about known mid-twentieth-century Modern residences in Connecticut along with biographical and design materials on architects active in the state. The local component completed for New Canaan involved the completion of site visits, specific research, and nominations for individual properties. The process included coordination with the project partners to approach and inform property owners about the opportunity to have their house visited and nominated. A total of 91 properties in New Canaan had previously been surveyed for possible inclusion in the National Register nomination (BCA 2008).

Archival Research

Archival research included review of the Connecticut Commission on Culture and Tourism Survey and National Register files; thorough research in the collections of the New Canaan Historical Society; extensive use of online institutional and media sources; and published books, journals, and shelter magazines available online and through regional libraries. Individuals knowledgeable about period design in general and Modern residences in Connecticut were approached for interviews, and all research leads were pursued when possible. Visits to concurrent topical exhibits at the New Canaan Historical Society, the Westport Historical Society, the Museum of Modern Art, and Yale University, as well as a review of the Litchfield Historical Society's files on a 2002 Modern architecture exhibit, provided important research information. All major sources are included in Section I, Major Bibliographical References. The archival research informed the discussion of historical themes and the definition of periods of significance for the national and Connecticut historic contexts.

Fieldwork

Fieldwork consisted generally of overview driving inspections of houses visible from public ways in New Canaan, in the Saint Ronan and Yale University neighborhoods of New Haven, in Litchfield County, and an in-depth tour of Philip Johnson's Glass House in New Canaan. A total of 19 individual houses in New Canaan, for which owners gave access and individual nomination permission were visited by two architectural historians and a representative of the National Trust for Historic Preservation.

Property Types Identification and Evaluation

A review and assessment of the 2008 New Canaan survey (BCA 2008) was undertaken early in the project to identify individually eligible properties and begin owner contacts. The review focused on buildings that had been visited in the 2008 survey, and also included houses considered to be iconic and of transcendent importance because of the architect, the attention received when constructed, and the subsequent influences of the house.

The Associated Property Types in Section F of the MPDF were identified based on general information about mid-twentieth-century Modern design and the work of specific architects with residential work in Connecticut. Published material and online sources and images provided important information about architectural forms, plans, and design intent, in conjunction with house site visits in New Canaan.

A review of information about early prefabricated buildings was completed to understand their role in the development of Modern residential architecture in Connecticut. General discussion of these companies and buildings is presented in the context statement; however, only those subtypes and individual buildings that clearly demonstrate Modern characteristics are included under the framework of this multiple property nomination.

National Register Criteria, Periods, and Level of Significance

The appropriate beginning and end dates of the Historic Context Statement and Period of Significance, the level of significance, and the application of Age Consideration (Exception) G were carefully analyzed and discussed with representatives of the National Trust for Historic Preservation, the Connecticut Commission on Culture and Tourism, and the National Park Service.

Six properties included in the survey and evaluation were nominated to and entered in the Connecticut State Register of Historic Places. Connecticut's State Register of Historic Places does not exclude properties based on their age. The State Register is the State of Connecticut's official list of historic properties worthy of preservation, and listing in the State Register provides recognition and assists in preserving Connecticut's heritage.

At present, these properties do not meet National Register Criteria Consideration G for the achievement of exceptional significance within the last 50 years. However, they were built within the historic context period of significance for mid-twentieth-century Modern residences in Connecticut. Provided that the houses retains their current degree of integrity, they will be eligible for listing in the National Register under Criteria A and C at the state level when they reach 50 years of age, or at an interim time if alternative evaluation measures are established. When they are listed, the end date of the period of significance may meet Criteria Consideration G as part of the exceptional significance of the development of mid-twentieth-century Modern residential architecture in Connecticut as discussed in the MPDF.

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UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

REQUESTED ACTION: COVER DOCUMENTATION

MULTIPLE NAME: Mid-Twentieth-Century Modern Residences in Connecticut 1930-1979

STATE & COUNTY: CONNECTICUT, Multiple Counties

DATE RECEIVED: 07/12/10 DATE OF PENDING LIST:
DATE OF 16TH DAY: DATE OF 45TH DAY: 08/26/10
DATE OF WEEKLY LIST:

REFERENCE NUMBER: 64501078

REASONS FOR REVIEW:

APPEAL:	N	DATA PROBLEM:	N	LANDSCAPE:	N	LESS THAN 50 YEARS:	(Y)
OTHER:	N	PDIL:	N	PERIOD:	N	PROGRAM UNAPPROVED:	N
REQUEST:	Y	SAMPLE:	N	SLR DRAFT:	N	NATIONAL:	N
NEW MPS:	Y						

COMMENT WAIVER: N

___ACCEPT ___✓___RETURN ___REJECT_____DATE

ABSTRACT/SUMMARY COMMENTS:

See attached sheet.

RECOM./CRITERIA_____

REVIEWER [signature] DISCIPLINE Historian

Phone 202-354-2278 Date August 25, 2010

DOCUMENTATION see attached comments (Y)/N see attached SLR Y/N

If a nomination is returned to the nominating authority, the nomination is no longer under consideration by the National Park Service.

United States Department of the Interior
National Park Service

National Register of Historic Places
Evaluation/Return Sheet

Property Name: Mid-Twentieth Century Modern Residences in Connecticut 1930-1979
Reference Number: 64501078

Date of Return: August 25, 2010

Reason for Return: Substantive problems

Section F. Associated Property Types

The Multiple Property Documentation Form developed for these properties does not provide sufficient guidance to determine individual eligibility for additional properties nominated under this multiple property listing. Under Section F, Associated Property Types, it is stated that "Modern residences in Connecticut can also be understood in terms of their place within a category framework of identifiable traits shared by each group." This statement is broken down into the categories of "Characteristic", "Individualistic", and "Experimental or Progressive".

For "characteristic" the established property types "Box", "Geometric", etc., are referenced, yet these are descriptive categories and do not in themselves provide justification for individual listing any more than if they were good examples of a particular architectural style. Nor is it sufficient for a building to "represent the design aesthetics of a particular architect" as not all the work of even great architects is necessarily individually eligible.

The second category, "individualistic" states that, "properties are examples of an interpretation of Modern design that reflect the architect's personal view, training, and interests either in general or as a solution for a particular design goal". This is true of all the properties designed for individual clients, especially in the mid-twentieth century modern period when historically styles were not called upon to provide patterns.

The third category, "experimental or progressive", describes the basis for the most significant architecture of the mid-twentieth century modern period. The experimental and progressive aspects of mid-twentieth century modern architecture potentially provide a justification for listing under criteria A and C. However, not every example of mid-twentieth century modern is experimental or progressive. Several houses nominated in New Canaan are clearly derivative of the work of other architects. For the nominations of the Beaven Mills and Hall houses this is particularly evident. As stated in the nominations, "In his economical, minimalist, and comfortable designs for the Beaven Mills and Hall houses in New Canaan, Pederson appears to have been interested in making a straightforward Modernist statement rather than an attempt to create novel buildings that would have stood out on the landscape." The Mills House II can be similarly characterized. While in the context of New Canaan, these houses may be eligible, the multiple property documentation form provides little guidance for how these houses would be treated in other communities.

I think it would be helpful to include, for each associated property type, to include statements similar to the following section from *How to Apply the National Register Criteria for Evaluation* (p.18 c.3):

"A structure is eligible as a specimen of its type or period of construction if it is an important example (within its context) of building practices of a particular time in history. For properties that represent the variation, evolution, or transition of construction types, it must be demonstrated that the variation, etc., was an important phase of the architectural development of the area or community in that it had an impact as evidenced by later buildings. A property is not eligible, however, simply because it has been identified as the only such property ever fabricated; it must be demonstrated to be significant as well."

Property Name: Tatum/Liston House
Reference Number: 10000569

Date of Return: August 25, 2010

Reason for Return: Substantive problems

See comments on Multiple Property nomination form, above.

Property Name: Murphy House
Reference Number: 10000563

Date of Return: August 25, 2010

Reason for Return: Substantive problems

See comments on Multiple Property nomination form, above.

Property Name: Bruer House II
Reference Number: 10000572

Date of Return: August 25, 2010

Reason for Return: Substantive problems

See comments on Multiple Property nomination form, above.

Section 3. The property is marked for national significance. This is the second of four houses designed by Marcel Breuer for himself in New England. The house has been significantly altered and, although still eligible in the context of New Canaan modern architecture, there does not appear to be justification for a national level of significance.

Property Name: Durisol House
Reference Number: 10000566

Date of Return: August 25, 2010

Reason for Return: Substantive problems

See comments on Multiple Property nomination form, above.

Property Name: Ford House
Reference Number: 10000574

Date of Return: August 25, 2010

Reason for Return: Substantive problems

See comments on Multiple Property nomination form, above.

Property Name: Chivis House
Reference Number: 10000564

Date of Return: August 25, 2010

Reason for Return: Substantive problems

See comments on Multiple Property nomination form, above.

Section 3: The property is nominated with both a national and state level of significance marked. This house is the last (1977) design by Eliot Noyes and was completed and expanded by his partner, Alan Goldberg in 1978. The does not appear to be justification for a national level of significance, especially given its construction date at the end of the period of significance for the multiple property nomination.

Property Name: John Black Lee House I
Reference Number: 10000568

Date of Return: August 25, 2010

Reason for Return: Substantive problems

See comments on Multiple Property nomination form, above.

Property Name: System House
Reference Number: 10000571

Date of Return: August 25, 2010

Reason for Return: Substantive problems

See comments on Multiple Property nomination form, above.

Property Name: Hall House
Reference Number: 10000573

Date of Return: August 25, 2010

Reason for Return: Substantive problems

See comments on Multiple Property nomination form, above.

Property Name: Beaven Mills House
Reference Number: 10000565

Date of Return: August 25, 2010

Reason for Return: Substantive problems

See comments on Multiple Property nomination form, above.

Property Name: Mills House II
Reference Number: 10000567

Date of Return: August 25, 2010

Reason for Return: Substantive problems

See comments on Multiple Property nomination form, above.

Property Name: Swallen House
Reference Number: 10000570

Date of Return: August 25, 2010

Reason for Return: Substantive problems

See comments on Multiple Property nomination form, above.

Roger G. Reed, Historian
National Register of Historic Places
202-354-2278
Roger_reed@nps.gov

Connecticut Commission on Culture & Tourism

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Tourism
Film
History

One Constitution Plaza
Second Floor
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06103

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MEMORANDUM

TO: **Roger Reed**
National Register of Historic Places

FROM: **Stacey Vairo, National Register Coordinator**

DATE: **July 9, 2010**

SUBJECT: **Mid-Twentieth Century Modern Residences in CT, 1930-1979**

The following materials are submitted for nomination of the _ **Mid-Twentieth Century Modern Residences in CT, 1930-1979** – Statewide context statement to the National Register of Historic Places:

_____ National Register of Historic Places nomination form

__X____ Multiple Property Nomination form

_____ Photographs

_____ Original USGS maps

_____ Sketch map(s)/figure(s)/exhibit(s)

_____ Pieces of correspondence

_____ Other _____

COMMENTS:

_____ Please review

_____ This property has been certified under 36 CFR 67

_____ The enclosed owner objections do _____ do not _____ constitute a majority of property owners.

_____ Other: __

CONNECTICUT
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Virginia Adams
<Vadams@PALINC.COM>
09/13/2010 03:11 PM

To "'Vairo, Stacey'" <Stacey.Vairo@ct.gov>, "'Roger_Reed@nps.gov'" <Roger_Reed@nps.gov>
cc 2436 Connecticut Modern House <2436ConnecticutModernHouse@PALINC.COM>, Jenny Scofield <JScofield@PALINC.COM>
bcc
Subject CT Moderns MPDF Text Revisions

History: This message has been replied to.

Hi Stacey and Roger,

In response to National Park Service comments, as we discussed on Friday, attached is a short document with revised text proposed for the Criteria Consideration G and Property Types, Registration Requirement narratives.

Upon your approval, we will integrate the revised text into the MPDF and send along updated files.

Thank you,
Ginny

Virginia H. Adams
Senior Architectural Historian
vadams@palinc.com

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MPDF Revised Text.docx

Suggested additional information regarding Criteria Consideration G:

Even though the period of significance for Mid-Twentieth Century Modern Residences in Connecticut covers the period 1930 to 1979, Criteria Consideration G must addressed when properties are less than 50 years old in each specific nomination. The following is my suggestion for inclusion in the MPNF:

A justification of exceptional significance is required for individual properties whose period of significance began within the past fifty years, or which underwent substantial physical alteration in the less-than-fifty-year period. However, the fact that the property's significance can be placed within the Mid-twentieth-Century Modern Residences in Connecticut, 1930-1979 context and that considerable scholarship exists on the subject should make it easier to make a case for exceptional importance and establish registration requirements defining several specific ways the exceptional importance may be established.

The property type analysis provides the opportunity to state how Criterion Consideration G applies to resources, and to define within the context of the overall theme what qualities define continuing historical importance beyond the fifty-year mark and/or qualify a resource as "exceptionally important". The date of construction as well as the date when a resource took on its current appearance (in the case of a property remodeled or substantially added to within the past fifty years) should be considered in deciding whether Criterion Consideration G needs to be applied and exceptional importance justified.

Less -than-fifty properties associated with mid-century modern architecture in Connecticut may have exceptional importance for their outstanding representation of a particular property type or for distinction as embodying the values associated with early modern architecture. Some properties may have particularly strong and important associations with specific events, architects, property owners, and patrons of modern architecture instrumental in forging or maintaining the state and local community's identity.

Exceptional properties might include a particularly exemplary example or a "rare" and intact survivor of a period of construction or type of construction, or a property of high integrity.

Virginia Adams
<Vadams@PALINC.COM>
09/15/2010 05:13 PM

To "'Vairo, Stacey'" <Stacey.Vairo@ct.gov>, "'Roger_Reed@nps.gov'" <Roger_Reed@nps.gov>
cc 2436 Connecticut Modern House <2436ConnecticutModernHouse@PALINC.COM>, Jenny Scofield <JScofield@PALINC.COM>
bcc
Subject CT Modern MPDF

History: This message has been replied to.

Hi Stacey and Roger,

Attached are the revised files incorporating the changes requested by NPS and approved by NPS and CCHT for the Mid-Twentieth-Century Modern Residences in Connecticut, 1930-1979 MPDF. We also took the opportunity to make some other minor revisions to clarify the narrative in the historic context.

Historic Context with Sections A through I
Breuer House I and Chivvis House, changed to state level of significance

Thank you again,
Ginny

Virginia H. Adams
Senior Architectural Historian
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