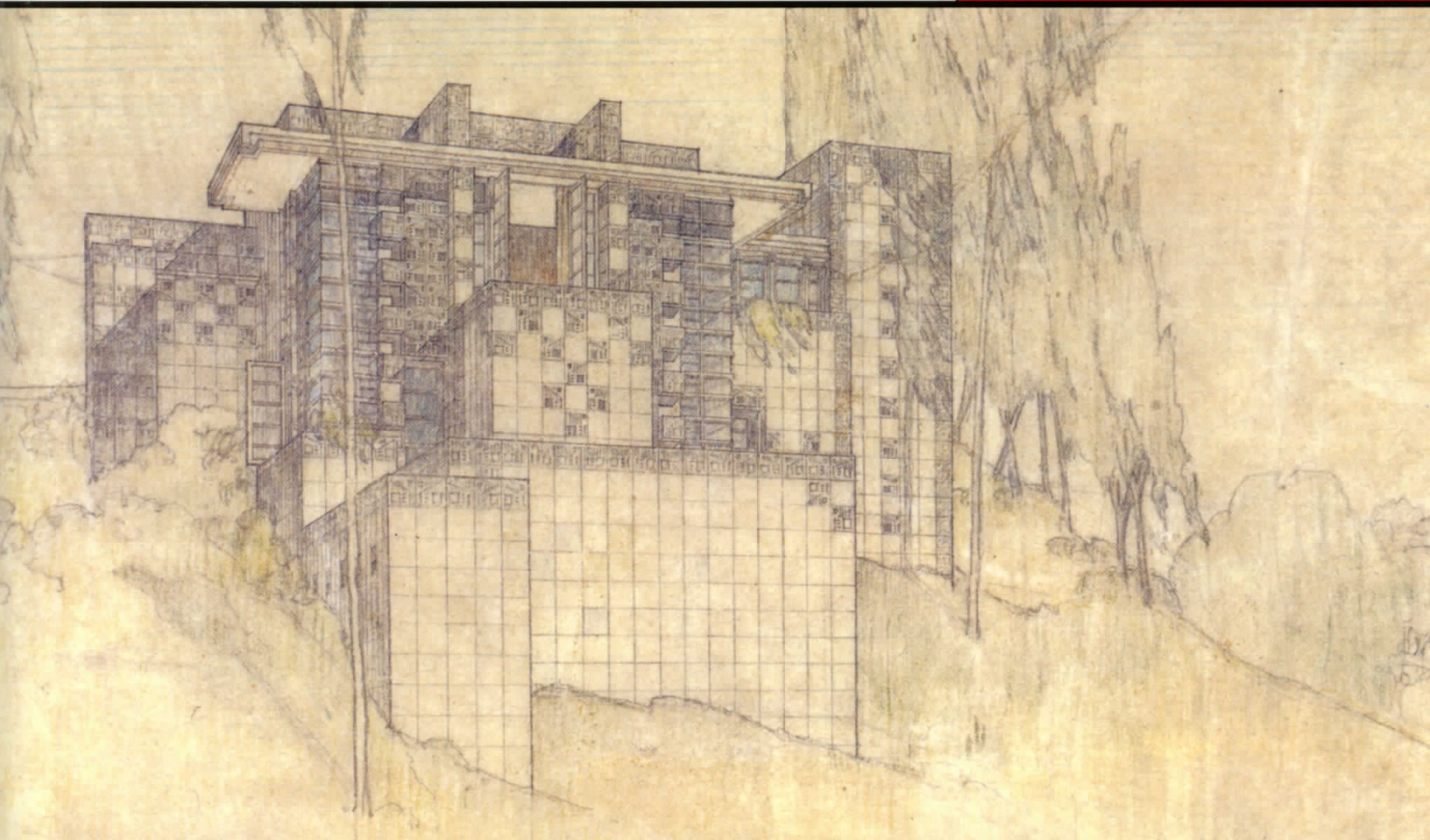
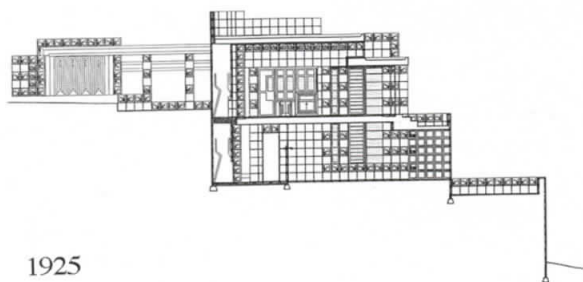
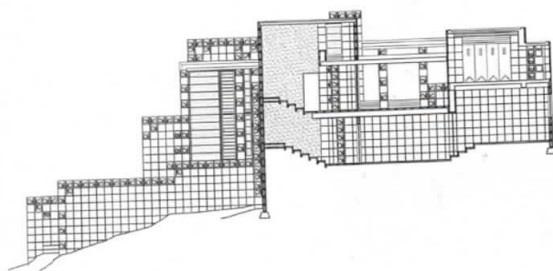
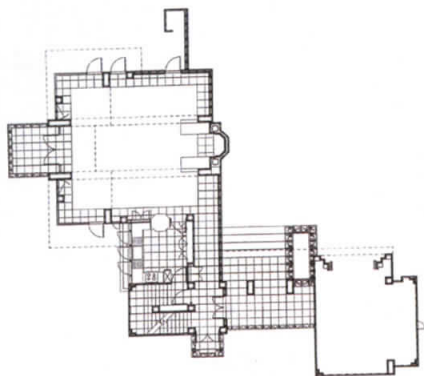
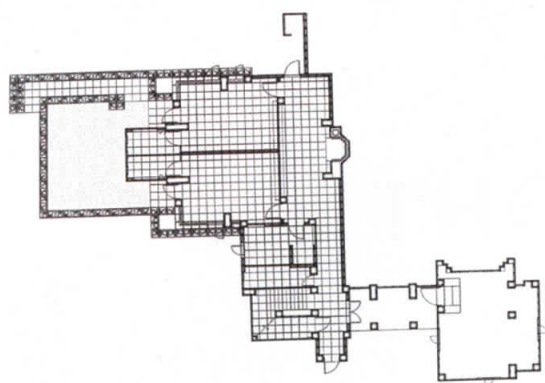


SAVING WRIGHT

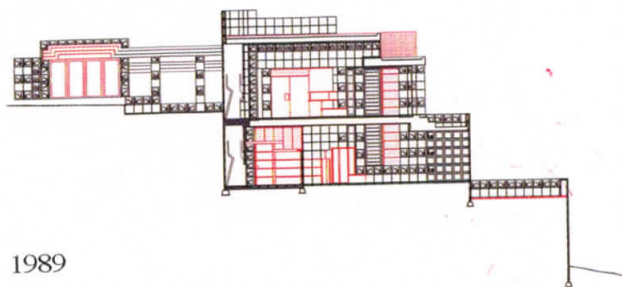
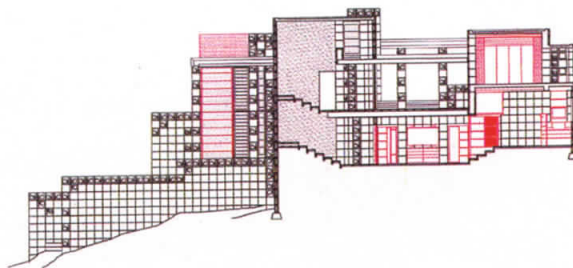
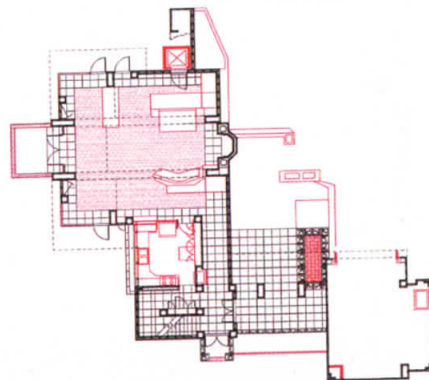
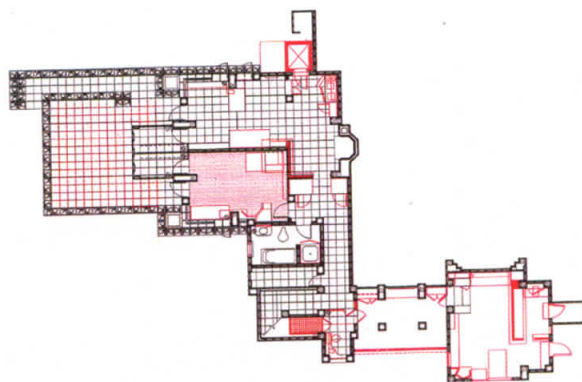
THE FREEMAN HOUSE
AND THE
PRESERVATION
OF MEANING,
MATERIALS, AND
MODERNITY



JEFFREY M. CHUSID

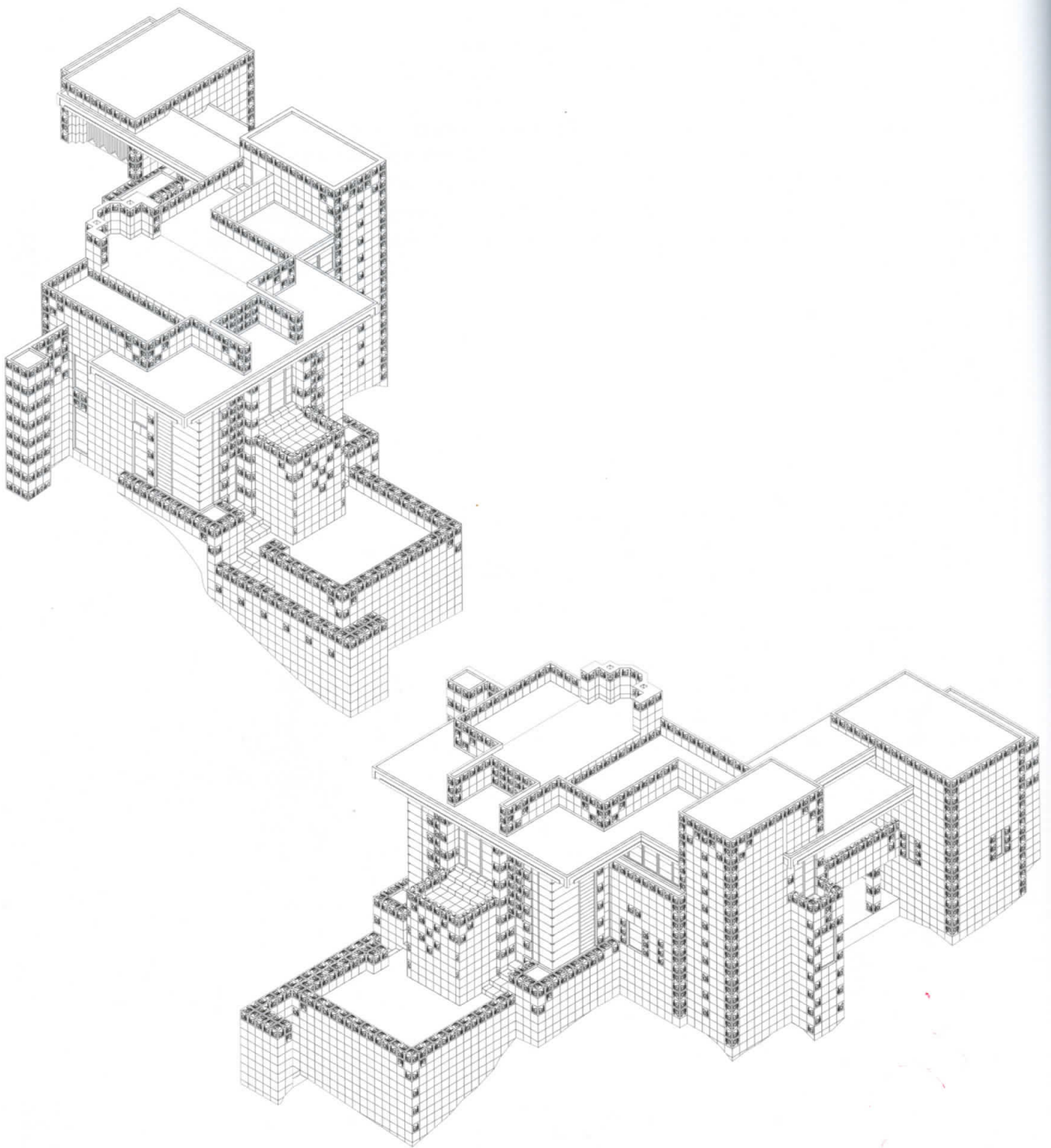


1925



1989

Over time the Freeman House changed significantly as different architects responded to its owners' wishes. These as-built drawings come from a set documenting the house as constructed, and when USC took possession. Alterations are noted in red. Top to Bottom: first-floor plan; main-level plan, section through stair tower looking west, section through living room looking east.



3-1. Computer model of the Freeman House as built in 1925. Above, viewed from the south west. Below, from the south east.

INTERPRETING THE DESIGN

What the site “wants to be,” to adopt Louis Kahn’s famous saying, is central to any preservation project. It is also an ambiguous concept. Hence, one of the first research projects I undertook at the Freeman House was a “thick description,”¹ an analysis that sought not only to describe physical appearances and phenomena but also to reveal the underlying deep structures (to use a term from cultural geography) of meaning and practice in Wright’s work and in American building of the 1920s that either influenced the making of the house or could be said to be manifested in the house. The analysis was meant to help us understand and interpret the site and inform our work, to provide a context for what was really a continuous project that began in 1926 and was still under way: making the house “better.” Here is one connection between the dual dilemmas of integrity and authorship described in Chapter 1. The many technical and functional problems at the house have given several generations of architects license to work over the design and, as a result, to destroy or cover up aspects of the original house and to ignore or discard important aspects of the house’s history—while adding their own.

The textile-block houses demonstrated Wright’s ideas for making a modern house: affordable for the middle class and appropriate for the climate, lifestyle, and landscape of Southern California. The Freeman House, as the smallest of his experiments, most clearly demonstrates these aims. It was the only one of the California houses designed without servants’ quarters; it had the most flexible spaces; it and the Millard House were the only ones that fully explored the organic development of the square block in plan, section, and elevation; and its particular combination of mass and transparency made it comfortable in the sunny, temperate climate by providing discrete areas of sun, shade, and ventilation, while at the same time serving as a model for how to build in the hills, with the solid mass fronting the street and the transparent areas overlooking the city below.

SITING

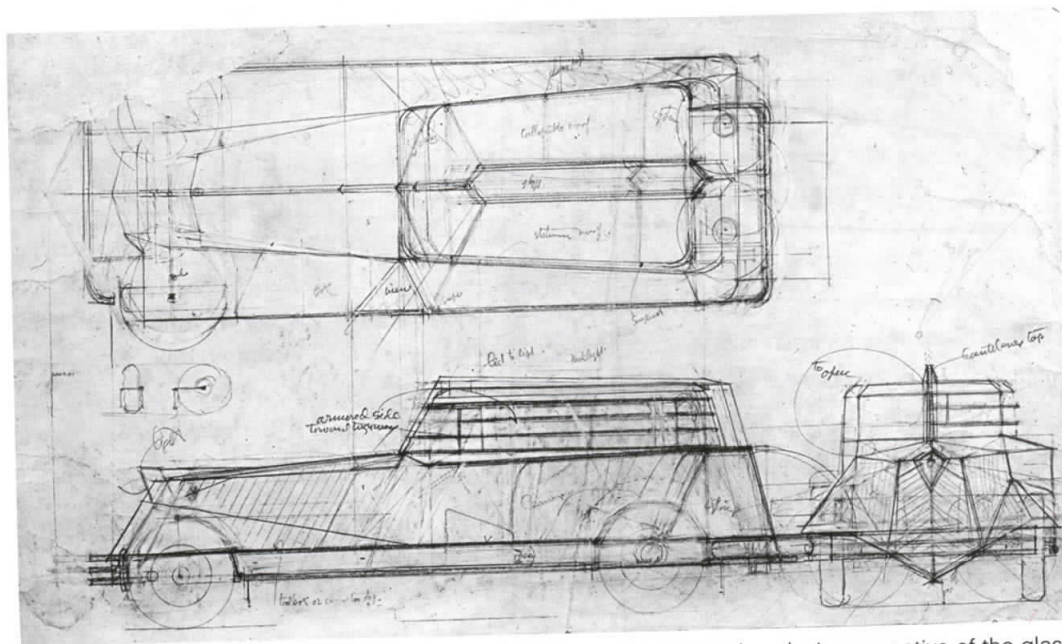
Upon the opening of his Los Angeles office at the beginning of 1923, Wright stated his intention as “designing foothill properties between Hollywood and the sea.”² He sought to take

the lead in the rush of development flooding these areas, by defining both a new architectural language for the hillside homes and a better way for the projects to fit their sites.

Wright had precedents in his own work on which to draw, buildings in which cubic volumes of varying scales step down a hillside. Perhaps the first was the Hillside School of 1902 in Spring Green, Wisconsin; the closest to the Los Angeles projects, the Hardy House of Racine, Wisconsin (1905), perched on a bluff overlooking Lake Michigan. Like these two projects, the Freeman House has double-height windows facing down the slope, a cantilevered roof, a cubic main volume, projecting glass corners, and a hearth set opposite a glazed wall and view.

Wright was obviously fascinated by the sprawling, low-rise city of Los Angeles and by the automobile. He shared the ideas of regionalist planners such as Lewis Mumford and Clarence Stein who idealized "organized decentralization," and viewed roads as elemental features of the landscape—horizontal expressions of human freedom, the antidote to the tyranny of the vertical skyscraper. A striking feature of the Freeman House site is how the hearth of the living room becomes the implied termination of the axis of Highland Avenue, which is located at the bottom of the hill on which the house sits. The patterns of circulation within the house extend into the landscape via the movement of vehicles on that boulevard. For Wright, the automobile, not the tree, was the "natural" feature of the city. "Man is a fluid in metropolitan regions," he later wrote.³ The same year that construction on the Freeman House began, Wright designed a cantilevered-roof car with long, horizontal windows, apparently intended to complement the contemporaneous block houses and transport their owners across the sprawling landscape of Southern California.

Wright's Los Angeles projects took his lifelong concern for a sympathetic and mutually reinforcing fit between house and site and transformed it into an exploration of the house as an outgrowth of the site itself. The walls of the house, together with the identically con-



3-2. Wright's design for a car, ca. 1924, with a cantilevered roof and window design evocative of the glass corners at the Freeman House.

strutted terraces and landscape retaining walls, became rock outcroppings at least in part made from the same decomposed granite as the soils below them. The flat roofs were mesas from which the owners could occupy and command their precipitous site. The inclusion of local sand and soil in the block was an Arts and Crafts conceit, like using the stones of river channels to make the bungalow porches of the Arroyo architecture of Pasadena, or using local clays to make pottery. Wright himself described this sensibility in the opening paragraphs of his 1928 article on concrete for *Architectural Record*: "I am writing this on the Phoenix plain of Arizona. The ruddy granite mountain-heaps, grown 'old,' are decomposing and sliding down layer upon layer to further compose the soil of the plain. Granite in various stages of decay, sand, silt and gravel make the floor of the world here. . . . Buildings here could grow right up out of the 'ground' were this 'soil' before it is too far 'rotted,' cemented in proper proportions and beaten into flasks or boxes—a few steel strands for reinforcement."³⁴

The topography of the site has another consequence, one that Wright only fully exploited at the Freeman House (and to a lesser extent at La Miniatura and the Ennis House). The street façades of houses on the narrow roads of the Los Angeles hills are frequently different from the façades facing the rear yards, whether up or down the slope. As noted in the discussion of the early stages of the design, the south and north façades of the Freeman House could seem to be from two different structures. On the street side (the uphill, north, façade), the house has no setback, in accordance with Los Angeles hillside zoning allowances. That façade is developed almost as if it were a garden wall. It is largely blank, winding, and set with a few small openings that do not immediately reveal themselves as windows. Its anonymous character is a continuation of Wright's long-standing habit of hiding the entry of a house and providing a sense of protection against the street. At the same time, the façade's massing and location along the street recalls contemporary California architecture that found its influences in Mexican and Spanish colonial precedents, which also valued privacy and opacity. Another consequence of the long, folding entry wall is that the house seems lower than it really is, because of the proportion of height to length, and because it lacks any identifiable features from which one can scale its true size. By the time images of the house were published in *Architectural Record* just three years after its completion, the street façade had become a true garden wall, almost completely covered with ivy.

The downhill side radically shifts character. The south façade is a dramatic four-story composition that begins down the hill with a massive retaining wall for the slumber terrace, extends through the two-story principal living areas, and terminates in a stair-tower pent-house and a rooftop exedra formed by the chimney mass. While the windows on the street façade help to diminish the scale of the house, the two-story glass curtain walls on the city façade have the opposite effect. Seen from below, the tiny house becomes a sculptural object massive enough to carry out its responsibility as the visual terminus of a major urban boulevard. With its double-height glass screens and panels of perforated concrete, this façade is also much more open, as befits its location facing the city and the privacy of the vegetated slopes of its site.

Perched in the hills but overlooking the city, the Freeman House is a voyeur, with views (on a clear day) across fifteen miles or more of the Los Angeles Basin to Catalina Island to the south, Mt. Baldy to the east, and the Pacific Ocean to the west. At the same time, it is self-contained on its small lot, surrounded by the original eucalyptus and a profusion of other

plants that postdate its completion. Its sense of both dignity and monumentality is vulnerable to the changes wrought by ongoing development nearby, especially from high-rise buildings, which effectively flatten the topography of the hills. Yet, the Freeman House seems to take little from the city of which it is a part, perhaps reflecting Wright's ambiguity about urbanism. It overlooks Hollywood, even dominates Highland Avenue, but does not share the form, materials, scale, or character of the buildings around it (see page 6).

Wright opened up his houses to the outdoors through several design devices: extending rooms onto terraces; arranging windows into bands instead of singular punched openings; floating the eaves of overhanging roofs out toward the garden; terminating axes of movement inside the house at a window or a door to the exterior; and bringing vegetation to the level of windows in raised urns and planters. This sense of freedom and connection to the landscape was even more important in California, where a benign climate attracted people who, like the Freemans, not only appreciated life outdoors but actively sought its benefits. The house sat on the only relatively flat part of the site, and the roof was meant to replace that flat area as an outdoor space. Wright wrote about the terraces of his California houses as helping to make the dwellings "half house and half garden." The house became an extension of the hill; its roof, the summit.

RESPONSE TO CLIMATE

The blocks provide respite from the glaring California sun in two ways. Their mass provides shade, and their dull, textured surfaces soak up light. Perforated blocks assembled into screens, which Wright referred to as "Persian faience,"⁵ diffuse light entering the house, and the scattered spots of illumination soften the contrast between the bright outdoors and the dark interior. (Wright was exposed to North African and other Islamic models through examples displayed in Sullivan's office and through Lloyd, who studied those precedents in the office of Irving Gill.⁶)

The screens are especially important for south-facing rooms, where bright light coming through a single window in a dark wall can create intense glare. In the bathroom, perforated blocks above the window help to scatter light around the room; in the kitchen, the light from the single band of windows spanning the south wall reflects off the side walls, helping to eliminate glare.

The broad overhang of the cantilevered roof almost completely shades the living room's expanse of south-facing windows in the summer, when such protection is most necessary; trees and the neighboring house to the west also help to shade the room from morning and evening sun during the warmest months. Rays of the lower winter sun can reach almost all the way to the hearth at the back of the room, bringing light and warmth when these are most desirable. The perforated blocks in the living room clerestory also admit daylight in the shape of elements of the block pattern that move around the room with the sun. From their positions along the walls, it is possible to tell what time of day it is and even the time of year.

Protection from the sun is provided in other ways as well. The lower-level bedrooms have no overhangs, but they are somewhat screened by surrounding vegetation and by the

mass of the closets, which block most of their southern exposure. The east-facing terraces at both the entry and the lower-floor loggia are roofed and shaded by eucalyptus. The roof over the entry terrace also shades the front door, helping it to disappear from public view. The pool of darkness that surrounds the entry not only confers a psychological sense of coolness but, in the relative dryness of Los Angeles summers, usually cools the entryway appreciably in reality.

The large windows facing south, east, and west provide ample air movement and cooling breezes in the living room and the rooms downstairs. In 1924, the high central volume of the living room also could draw hot air away from the rest of the room because the clerestory windows were operable. The penthouse at the top of the stair tower also acts as a kind of wind scoop; facing west, it captures the ocean breezes.

On a day when the temperature outside reaches 95 degrees, the temperature of the lower level of the house can remain in the 70s because of the insulating properties of the concrete block and the air space between inner and outer wythes, which helps to provide a thermal break. Additional insulation comes from the below-grade location of the north side of the lower floor. Lower nighttime temperatures also help to cool the walls between consecutive warm days. The system has flaws: a prolonged period of hot or humid weather increases the temperature of the walls and floors; cooling then takes a similar length of time. In the winter, the temperature indoors often is not appreciably warmer than outdoors because of increased humidity and decreased solar heating when the days are shorter and the sun angle lower.

Initially, the house was heated by a series of thirteen electric resistance units set into the walls; these could warm not only the air but also the surrounding blocks. Their success cannot be determined except by inference from the fact that they were no longer in use within three years. Theoretically, a system that spread relatively high levels of heat to surrounding (nonflammable) concrete walls from which it could then radiate into the room would have been an efficient and clever way to exploit the material properties of the building. However, it is likely that given the extensive exterior areas of glass, the many open gaps between building elements such as windows and walls, the partial below-grade siting of the house, and the tendency of cold concrete to leach heat from a room, it was not easy to warm the house.

Wright's relative lack of concern about the winter climate in Southern California has occasioned some speculation. Indeed, early in the design of the Storer House, Wright proposed that the perforated block in the bedrooms not be glazed at all. When the client protested, Wright designed sliding glass panels on the interior. At least two factors seem to have been at work. Compared to the native climes of Wright and his clients, whether Wisconsin, New York, or Iowa, Los Angeles was a decidedly benign environment even in the wintertime. And many of the clients had come to California for their health. Though the custom of sleeping *al fresco* may have started with summer residences, in the 1920s sleeping outdoors, or in fresh-air environments indoors, was advocated year round by numerous Southern Californians, including the Freemans and many of their friends and family.

Even clothes were given fresh air. Recognizing the possibility of dampness, Wright placed an operable sash, a feature that can be found in closets at other homes of the period, in the three large closets on the lower floor. Unfortunately, the ventilation also made the clothes available to moths, which have voracious appetites in California.

AFFORDABILITY

In his lecture "The Art and Craft of the Machine," given in 1902 at Hull House in Chicago, Frank Lloyd Wright laid out a vision of how wedding the industrial revolution to good design could produce beautiful objects and places accessible to most Americans. In 1907, he designed "a Fireproof House for \$5,000" for the *Ladies Home Journal*. It is his best-known early design addressing the Progressive ideal of affordable, universally available housing.

Years later Wright still maintained that he "would rather solve the small house problem than build anything else I can think of . . ." ⁷ and that "[t]he house of moderate cost is not only America's major architectural problem but the problem most difficult for her major architects. . . . A pressing, needy, hungry, confused issue is the American 'small house' problem." ⁸ Throughout his career, Wright repeatedly undertook serious investigations of new construction technologies, motivated to a great extent by his interest in affordable housing. As mentioned in Chapter 1, the first attempt was the American System-Built Homes, several examples of which were built in Wisconsin and Illinois. ⁹ The textile-block houses were the second. Wright would later apply the term *Usonian* to the fruits of these efforts, a term that invented an adjective from the initials of the United States, and he applied it in retrospect to the textile-block houses of Los Angeles, referring to the Millard House as his first Usonian dwelling.

To house more people, especially those in the growing middle class, modernist architects (and others in the construction industries of the late nineteenth and early twentieth centuries worldwide) sought to build in ways that were cheaper, faster, and easier. They rejected redundancy, handcraft, and custom construction in favor of clean, simple, replicable designs using machine-made components that could be assembled by unskilled labor. ¹⁰ With the textile-block houses, Wright was leaving the architecture of individually crafted designs for this modernist ideal, however imperfectly realized. As noted earlier, the system was meant to be so simple to use that not only were skilled masons unnecessary but the homeowners could do the work themselves.

Finishes, or the lack thereof, were another way that Wright sought to move toward a more stripped-down, affordable, and essential way of building. He wrote, "In organic architecture there is little or no room for appliqué of any kind. I have never been fond of paints or of wallpaper or anything which must be applied *to* other things as a surface. . . .

We use nothing applied which tends to eliminate the true character of what is beneath, or which may become a substitute for whatever that may be. Wood is wood, concrete is concrete, stone is stone. We like to have whatever we choose to use demonstrate the beauty of its own character, as itself. . . . The only treatment we aim to give to any material is to preserve it pretty much as it is." ¹¹

The use of ornamental block throughout the Freeman House was supposed to eliminate the need for painting walls or floors. Just the limited wood and plaster surfaces needed to be finished: oil and wax for the wood, a thin coat of paint for the plaster.

Another way in which the Freeman House was made both less expensive and more reflective of a democratic middle-class ideal was by eliminating ser-



3-3. Mono-material construction by the Maya at Uxmal: structure, skin, and ornament in stone.

vants from the design. There are no servants' quarters, and the kitchen, formerly the servants' realm, was easily seen and accessed from both the front door and the living room. The wall between the kitchen and the living room consisted of a series of operable panels and doors, a barrier intended to be as programmatically transparent as possible. Glass-fronted cabinets and multiple windows conferred literal transparency as well. The octagonal table, echoing the fireplace in plan, could be used as a sideboard in the living room and a work surface in the kitchen. With the panels open, people could sit on either side or use the table as a serving counter. And the table also could be removed completely and placed in the living room to serve as the main dining table.

This modern approach to the kitchen has precedents in the American System-Built houses.¹² However, the Freeman House's combination of the flexible space between kitchen and living area, its relatively small scale, and the single-loaded corridor plan presage the Usonian houses Wright designed between 1936 and 1959. The Freeman House is organized along a hallway that starts in the living room, winds past kitchen and entry, and then splits, leading upstairs to the roof terrace and downstairs to the laundry, bath, and bedrooms. The main corridors on both floors are dark tunnels that open toward their destinations, and light, at either end. Their placement along the inner wall at each level allows them to act as a barrier toward the street and toward the hillside. With the "head" made up of the major public space, and a succession of smaller rooms falling into place behind it, the plan forms the tadpole *parti* mentioned in Chapter 1.

Another programmatic feature worth noting is the lack of a master bedroom. Sam and Harriet each had a bedroom and closet (mirror images of each other) and shared a sitting area and bathroom as well as the slumber terrace.

AESTHETICS

The artistry of the Freeman House resides in both the composition of the building and how it serves as a setting for an aesthetic experience. While Wright had a great deal to say about his ideas, the contemporary condition, his and other architects' work, and his experiments in building technology, he was relatively silent on the techniques that he used to create form and space and pattern. Nor did he speak in any depth about precedents or the sources of his inspiration. But while his interest in social, political, and cultural issues informed and gave passion and purpose to his designs, in the end it was his skills as a composer of materials and spaces that keep his buildings alive for us today.

The block houses continue Wright's previous explorations into unit masonry construction and the integration of geometric patterns in all scales of building development, from plan to ornament. Louis Sullivan's influence can be seen in the use of repetitive, pre-cast, ornamental masonry units, which integrate ornament with a building's skin and structure. In most of Wright's work before 1930, certain symbolic elements, usually derived from plants or animals, become design motifs in various parts of the building, such as lights, windows, column capitals, and furniture. Pre-cast masonry first appears in his work as these thematic elements. Early examples include the column capitals on the windows of the 1904 Unity Temple and the stork panels at his own studio.

In Wright's words, "Integral ornament is simply structure-pattern made visibly articulate and seen in the building as it is seen in the structure of the trees or a lily of the field. It is the inner expression of Form. . . . It is founded upon the same organic simplicity as Beethoven's Fifth Symphony, that amazing revolution in tumult and splendor of sound built on four tones based upon a rhythm a child could play on the piano."¹³

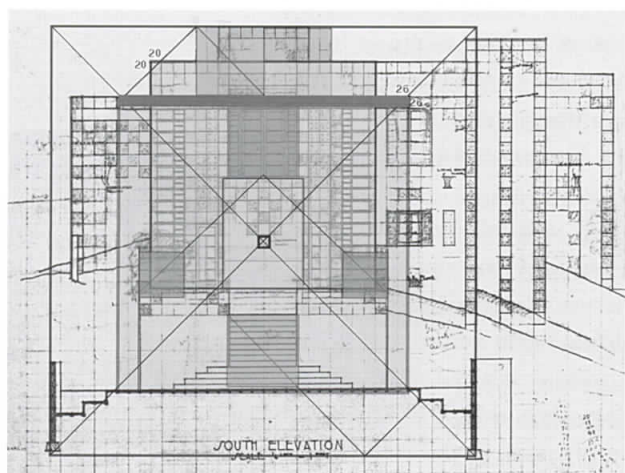
The assembly of cubes and other simple geometric forms into a building can be found in Wright's work as early as his own Home and Studio. There, a semicircular terrace combines with an octagon, squares, and triangles in the plan and façades of the building. These platonic solids were still being combined in the design of the Freeman House, both in the block ornament and in the building, and Wright's interest in them helps to explain the persistence of the semicircular terrace in the drawings long after it was gone from the project.

The germ from which the Freeman House developed is the 16"-square block. Like a crystalline growth from a single molecule, or a fractal curve, the forms and character of the greater object are inherent within the individual component. The proportion, color, texture, and mass of the house all derive from the block. A three-dimensional 16" grid determines the size and placement of every element.

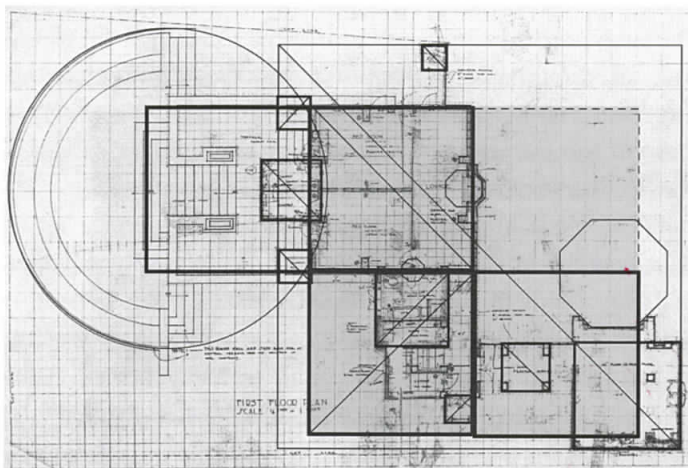
The principal openings in the living room facing south, east, and west are all squares: 6 blocks to a side, or 8' square. Other doors are generally either 2 blocks wide and 6 blocks tall (a triple square) or 4 blocks tall (a double square). Some openings, such as those in the kitchen, are 5 blocks tall with a special panel above to allow the opening to read as a triple square.

The plan of the living room is a square, 20 blocks x 20 blocks, or 26'8" on a side. The main volume of the house—the living room over the two bedrooms—is a cube 20 blocks x 20 blocks x 20 blocks, from the slumber terrace to the top of the parapets. Each of the remaining zones of the house essentially lies within its own quadrant on the site, forced into a Z shape by the bend of the road.

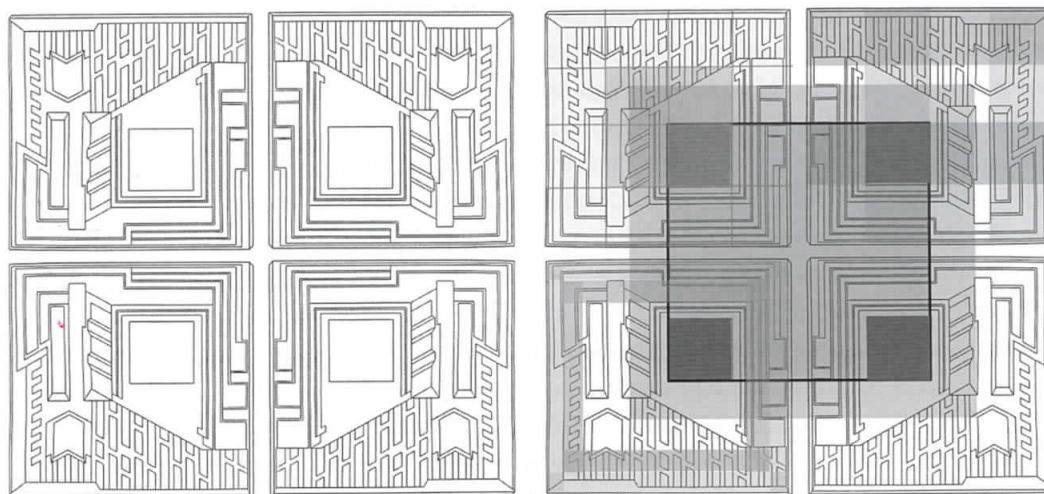
The octagon plays a secondary role. The chimney at the Freeman House forms five sides of an octagon both in the plan of the two hearths and as an engaged tower element on the exterior of the house at the street. This element is echoed by the octagonal dining table and by the design formed when the four rotations of the patterned block are set together.



3-4. The location of squares on the south elevation. Diagram by author, overlaid on Wright drawings.



3-5. Geometries in the lower-level plan. Diagram by author, overlaid on Wright drawings.



3-6. Analysis of the block pattern at the Freeman House, showing (left) the overall design created by the joining of the two different blocks in their two possible orientations; and (right) the proportions and geometries found in the pattern.

Placing a left- and right-patterned block above the same blocks set upside-down produces a whole new design, 32" x 32", dominated by an octagon. Octagons and squares have a strong mathematical relationship topologically: the two combine to form a "space-filling" geometry. In other words, a field of octagons requires squares to fill the gaps. (Squares and hexagons, on the other hand, can each fill fields by themselves.) Rudolph Schindler later continued the dialogue between square and octagon when he designed furnishings for Harriet's bedroom in the late 1920s.

The purity of the geometry was diluted by changes forced on the design during the process of fitting it to the site. Because of the inaccurate survey and other miscalculations, especially the curve of the street relative to the garage, parts of the house were shifted in both plan and section. And it seems that these ideal proportions were allowed free rein only where they did not compromise the necessities of program and construction.

Still, a system underlying and connecting the various elements within a work of art helps observers to comprehend it, and then to begin a dialogue with the work. To the extent that an ordering system successfully organizes the myriad ideas and physical constraints found within a building, it has power. Order also consists of a victory over chaos. The proportion and focus on the square and the 16" grid give the Freeman House much of its power.

EXPERIENCING THE HOUSE

The Freeman House is filled with experiences that Wright organizes by choreographing our movement through the building. Many of these experiences derive their power and drama from the tension that Wright created out of a series of oppositions. The underlying geometric order of the house is most easily read in the drawings, but these little dramas are revealed best by being in the building.