arts & architecture

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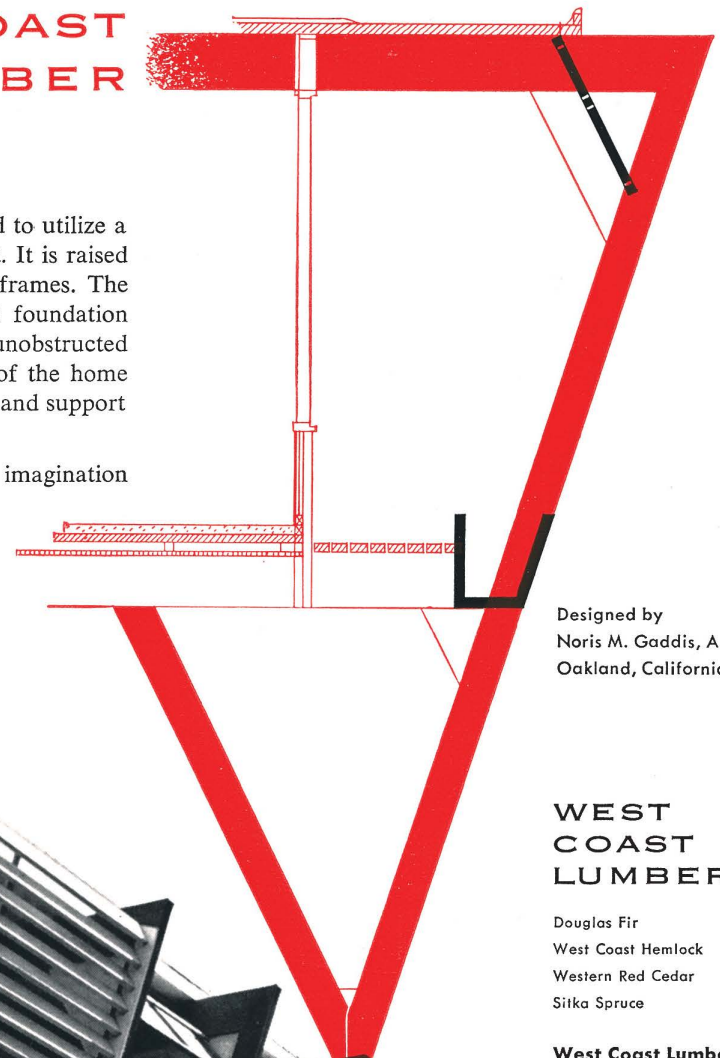
SEPTEMBER 1959

FOLLIS

MODERN DESIGN USES WEST COAST LUMBER



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Oakland, California

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West Coast Lumbermen's Association
1410 S. W. Morrison Street
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Dore Ashton, who is on a short vacation, will resume her art column in the October issue.

arts & architecture

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ARCHITECTURE

ARTICLES

SPECIAL FEATURES

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VOL. 76, No. 9

MUSIC

PETER YATES

SESTINA AND LAMENTATIONS

Two compositions heard in Los Angeles this past season raise very interesting questions about the relationship of spontaneity to formal order, and about the further relationship between arbitrary order and chance. In *Threni,* for soloists, chorus, and orchestra, Stravinsky has used for the first time a strict 12-tone row throughout an entire work and, with his own modifications, which in no way ease the strictness of the application, has written a work as entirely liberated from the ordinary consequences of tone-row or serial construction as it is also free of any German influence. Krenek has composed his *Sestina,* for solo soprano and chamber orchestra, by a serial method quite apart from, though consequent upon, the tone-row, elaborating the strict rules for rhyming of the Provencal sestina stanza to provide nearly the entire form of the musical composition he has built around his own poem in that style. The subject of the poem, fittingly, is the freedom of chance established by an unalterable order:

"As I with measure master sound and time,
shape recedes in unmeasured chance.
The crystal of number releases life's stream."

The contrast between the two compositions sets up a paradox as interesting to speculate over as it is nasty to explain. The form of the Provencal poem is built around a rhyming system of six words, rotating through six stanzas according to a numerical sequence. If the rhymes appear first in the order 1 2 3 4 5 6, the next stanza will show them in the order 6 1 5 2 4 3, and the subsequent stanzas will have 3 5 4 1 2 5, 5 3 2 6 1 4, 2 4 6 5 3 1. The three-line final stanza, quoted above, places one of the six key-words in the middle and one at the end of each line, in the order 2 5, 4 3, 6 1.

Krenek wrote the poem, he explains, as "a contemplation of the implications of the idea governing the musical construction of the work. (The music) is based on a series of twelve tones divided in two sets of six each. The tones of each set rotate according to the Sestina pattern outlined above, so that the intervals between the tones of the consecutive variants of the original sets are different with each change of the basic order of tones. From the magnitudes of these intervals are derived the durations of the tones . . . Other parameters* regulated serially are: Density. There are six degrees of density, rotating according to the Sestina pattern . . . 2. Spacing: the tones within each time segment are spread over as many octaves as there are tones, in the direction indicated by the direction of the intervals in the basic series. 3. Speed. There are six speed zones so arranged that the highest speed is coordinated with the lowest density, the lowest speed with the highest. 4. Dynamics. Six dynamic levels rotating as explained. Serial control extends to other details too complex to be described here.

"It is obvious," Krenek continues, "that so complete a determination by serial rule of a sufficient number of parameters will make control of the remaining ones impossible. In exact mathematical sense they are ordered, as a result of the determination of the other parameters. But what happens in this remaining sector is well-nigh unpredictable (except perhaps by electronic computation), and although intentionally brought about by the composer, it is not consciously planned by him as the sector analyzed above. Therefore these happenings may be considered chance results. The paradox of ultimate necessity's causing unpredictable chance is the topic of the *Sestina.*"

"What looks ahead subordinates itself to number."

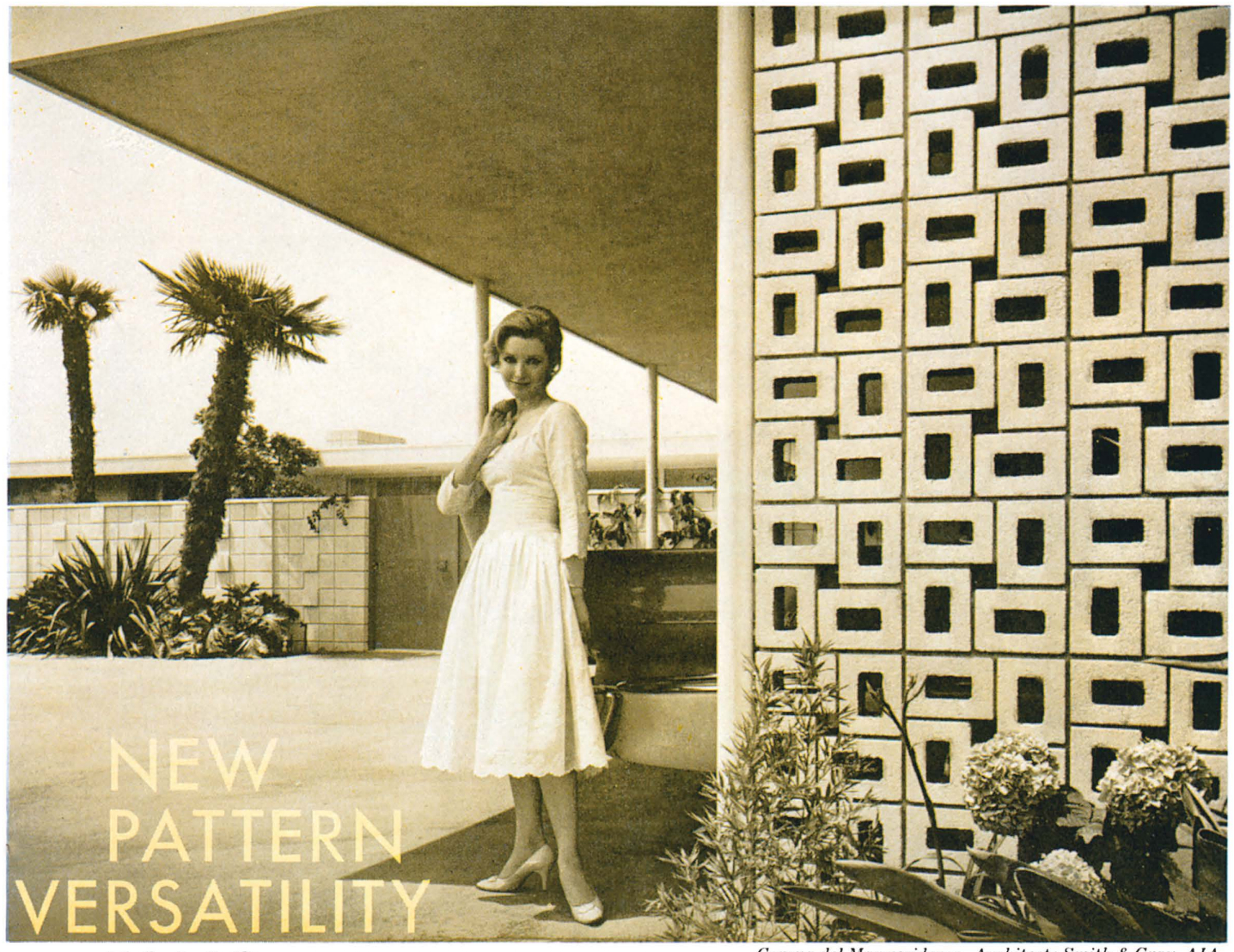
Arnold Schoenberg repeatedly warned his friends, followers, imitators, students, and expositors about one point concerning the nature of composition, restating the same thought in many ways: "Schemes of musical arrangement, even if they exist a priori, should only be discovered after they have been used." "The feeling already is the form, the thought already is the word." " . . . Everything (an artist) sees will become an unusual case through the way in which he sees it."**

Krenek, a follower, student, and expositor of Schoenberg, has decidedly violated these instructions. This is not to say he was wrong

(Continued on page 7)

*Parameter: Math. A quantity to which the operator may assign arbitrary values, as distinguished from a variable, which can assume only those values that the form of the function makes possible. *Webster's New Collegiate Dictionary.*

**These quotations are from page 168 of Josef Rufer's *Composition With Twelve Tones.* Rufer adds: "He never wrote forms, but always music."



Corona del Mar residence Architect: Smith & Gray, AIA

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to do so. When student challenges master, the student may be right. Schoenberg's attitude continues German romanticism, the conviction that the creative experience should generate the form. If the normal course of the medium is altered by this experience, then the formal consequences are to be defended. The reasons for the change from the normal course of the medium can be discovered and explained. These ideas seemed to Schoenberg self-evident, and he could never really understand why the logic of technical agreement, as well as that of popular acceptance moved more slowly than his own mind. The extreme case of such creative experience has been called *Expressionism,* but expressionism has governed the outcome of nearly all distinctively Germanic art in every period, from woodcuts to philosophy.

Wherever one strong attitude governs, its contrary will survive to challenge it. Throughout Germanic art the esthetic alternative to expressionism has been formal clarity, often derived from and usually identified with Italy. Schoenberg told me that he conceived *Pierrot Lunaire,* that model of expressionism, as an Italian work, that is, a model of formal clarity—as it is, in comparison with the heavily German romanticism of the monodrama *Erwartung.* The German notion of Italian clarity is as much a matter of atmosphere, of esthetic nostalgia for the clearer skies and radiance of the warm south, as of esthetic fact. Italianate influences constantly modify Germanic art, from Durer through Schuetz and Bach, to Goethe. The true formalized opposition to expressionism rises in Germany, and it is as sentimentally arbitrary as the romantic sentiment it criticizes. This contrary aspect begins with rule and synthesizes propositions. Where Schoenberg composed *Pierrot Lunaire* around a group of poems, the synthesizing followers compose around such strict formal devices as Schoenberg used to set the poems. The one attitude holds that after the expression the experience may be set in order; the contrary begins the mode of expression with the rule. When Mozart and Beethoven came upon Bach's *Art of Fugue,* they recreated some part of it as music; when German scholarship began paying attention to the *Art of Fugue,* professors lectured systematically on it for many years before anyone heard it played. Hindemith still argues that it should not be played.

Or consider the definition I have quoted of Krenek's parameter: "Math. A quantity to which the operator may assign arbitrary values, as distinguished from a variable, which can assume only those values that the form of the function makes possible." It is characteristic of Krenek that he should have chosen precisely the right mathematical word to define his procedure. For Schoenberg, in later life, continuous variation had become the root principle of all composition—not the tone-row or any rule. And we see at once where Schoenberg stood in relation to our definition: "a variable can assume only those values that the form of the function makes possible." Whereas the parameters of Krenek are quantities "to which the operator may assign arbitrary values." I would say that this distinction lies between Schoenberg and the major body of his formalistic followers, those who have preferred to do exactly what he told them not to do.

Krenek has written of his earlier choral composition *Lamentatio Jeremiae Prophetae,* opus 93: "The composition is based on a twelve-tone row which is developed from the four tones (F, G, A, B flat) of the Gregorian intonation of the *Lamentatio.* It is divided into two groups of six tones each. From each group two columns of rows are derived. The first column of five additional sets is obtained by 'rotation' in that five times the second tone of each set is made the first of the subsequent set . . . " And so on.

There has always been an amount of puzzle-music, and great composers, Bach and Schoenberg among them, have enjoyed making music in canonic forms. Stravinsky, more recently, has entered the game with zest. Schoenberg did not conceive the tone-row as a puzzle form but as a new harmonic determinant to replace the no longer creatively adequate key harmony. Neither Schoenberg nor Stravinsky begins with a puzzle and applies music to it. Not the puzzle but the musical solution interests them, and the canonic form allows manipulations of an extraordinary musical effectiveness, provided the composer's skill is mature enough to control the audible outcome of the play. A model of such forms is Bach's *Canonic Variations* for organ, which in the ripeness of age he submitted as a test for membership in a musical society. Stravinsky has enjoyed transcribing and arranging the *Canonic Variations* for chorus and orchestra.

(Continued on page 28)

ARCADIA WINDOW WALL

Increased emphasis on the design and configuration of the exterior wall in architecture today calls for an integrated system of framing that permits optimum flexibility at the lowest possible cost. Arcadia's new aluminum window wall is designed to fill this need. Because the system permits panel thicknesses of 2½ inches, a wide choice of spandrel materials is permitted. The system includes provisions for transom and spandrel panels and both fixed and sliding sash. The design is performance-tested for protection against water, air and dust infiltration. Write for your Architectural Detail Packet.

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notes

in passing

Until recently, most of us have paid strangely little attention to the quality of the air we breathe even though the purity of the food we eat and of the water we drink has been considered important enough to warrant proper safeguards for many years. Yet the fact is that the average adult person needs about thirty cubic feet or about three pounds of air a day for breathing while less than three pounds of food and four and a half pounds of water are consumed on an average during the same day.

It has taken a series of fatal smog disasters in recent years to jolt many of us out of this singular unconcern and to make us ponder the fact that with the tremendous growth of industrial centers and the increase in motor traffic, millions of tons of gases, fumes, vapors, dusts and other impurities are being poured into the air we breathe daily.

It has been estimated that over eight million tons of atmospheric pollution are produced each year in Great Britain just from the burning of coal and its derived fuels. A recent study in Paris has shown that motor traffic accounts for 30 to 40 per cent of the total air pollution of the city and the heating of houses for about 50 per cent.

A British authority on air pollution, Mr. A. R. Meetham, describes the problem in the following words: "Since the beginning of the industrial revolution a minor irritation has become a great social evil. In towns and industrial districts rain water loses its purity; ash and other solids fall continuously to the ground; the air contains a suspension of fine particles which penetrate indoors, to be deposited on walls, ceilings, curtains and furniture; our clothing, our skins, and our lungs are contaminated; metals corrode, buildings decay, and textiles wear out; vegetation is stunted and blackened; sunlight is lost; germs multiply; our natural resistance to disease is lowered. In a hundred and one ways the miasma of atmospheric pollution is lowering our vitality and our enjoyment of life."

This increasing pollution of the atmosphere must be prevented if our health is to be safeguarded from its disastrous effects.

A long fight is ahead if clean, smokeless air is to be achieved everywhere, but already much has been done to alleviate the pollution in a number of the world's cities. Now with a world campaign against atmospheric pollution proposed by the World Health Organization the drive is building up into a major campaign.

Just as we no longer throw rubbish into the street, we shall eventually cease to discharge smoke and other filth into the air.

Today the effects of air pollution on health are the urgent concern of research workers in many countries throughout the world. Their intense activity is partly the result of the stimulation afforded by recent "smog" disasters which have shown beyond doubt that air borne filth can kill when it reaches high concentrations for a few days.

The industrial revolution in the 19th century saw a vast increase in the amount of air pollution due to the prodigal use of great quantities of fuel. Wise men saw the dangers but their warnings went largely unheeded as we continued irresponsibly to use the air as a sewer.

Obviously no proper study of the effects of air pollution is possible without paying very careful attention to the nature of the filth in the air we breathe and the physician and physiologist must work patiently with the physicist and chemist in order to gain a clear idea of the complexity of the subject. The physicist strives to describe the minute structure of the tiny particles and droplets contained in town air because their fate on inhalation largely depends on their size and shape; we want to know if they are small enough to get into the lung and having got there how far they penetrate and what proportion remains inside. The chemist has a formidable analytical task trying to unravel the myriads of compounds which are present in extreme dilutions and therefore do not behave at all the way they do in books and lecture theatres.

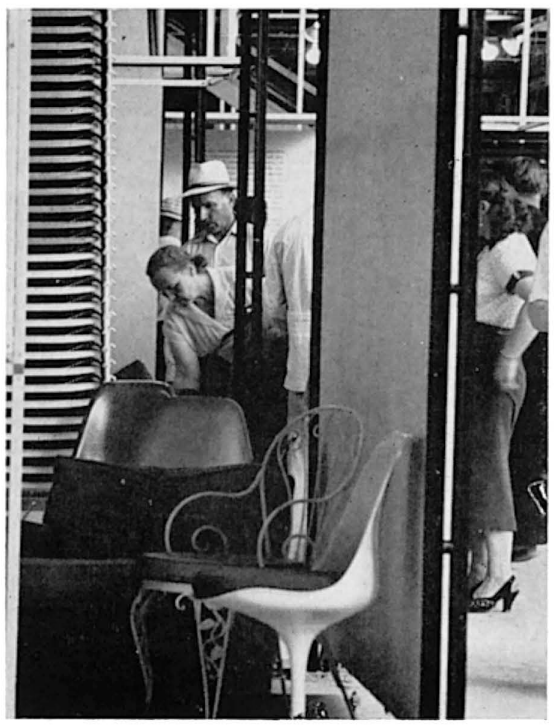
The complex nature of air pollution is often forgotten and deceptively simple explanations of its effects are all too common. Great confusion has been caused by the assumption that pollution differs only in amount whereas it is clear that it varies widely in composition as well; ordinary winter pollution is not merely dilute smog. Day-to-day air pollution in cities is mercifully dispersed by winds but occasionally this scavenging process fails with tragic results and we have a famous "smog disaster" in which many people die. This happens when the air is abnormally still for some time and, in valleys, cold air rolls down the hillsides and comes to lie under a layer of warm air. The refuse from our chimneys cannot rise but is trapped under a huge lid and accumulates to reach high concentrations in which it probably brews up and forms dangerous compounds which would not be found in more normal circumstances.

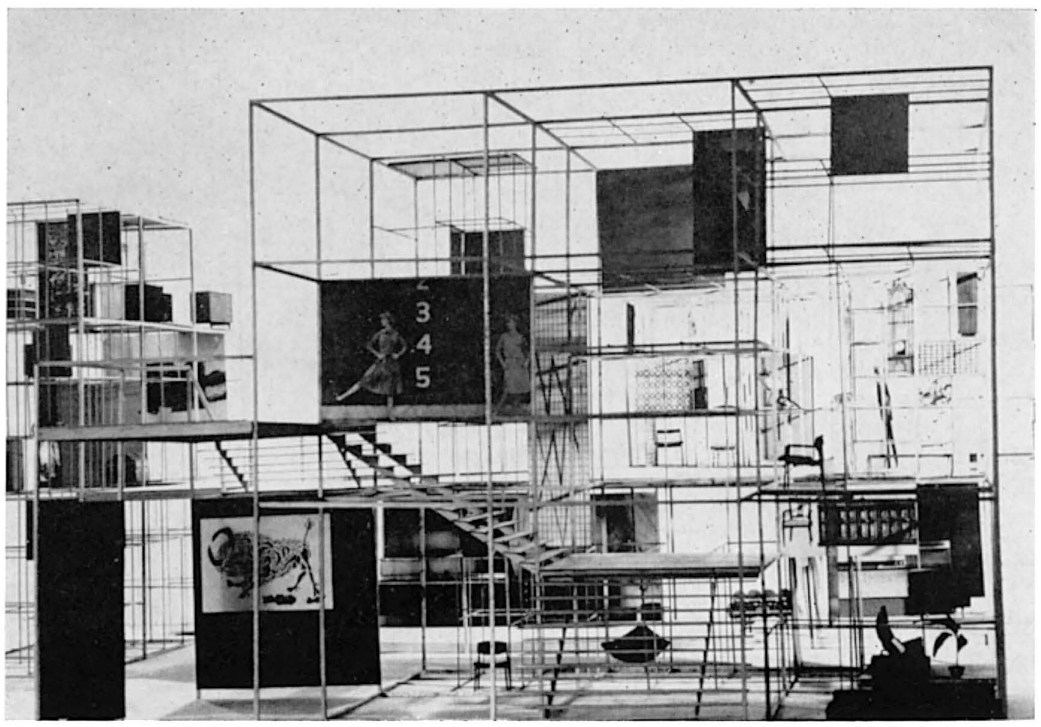
Air pollution is a monstrous social evil which can no longer be tolerated in civilized society. There is ample evidence that it is harmful and though a vast amount of detailed work is urgently needed to elucidate its effects, the abolition of pollution must not await the results of research. There must be no respite in the technological battle to abolish completely this shocking self-inflicted scourge of urban man. — **UNESCO**

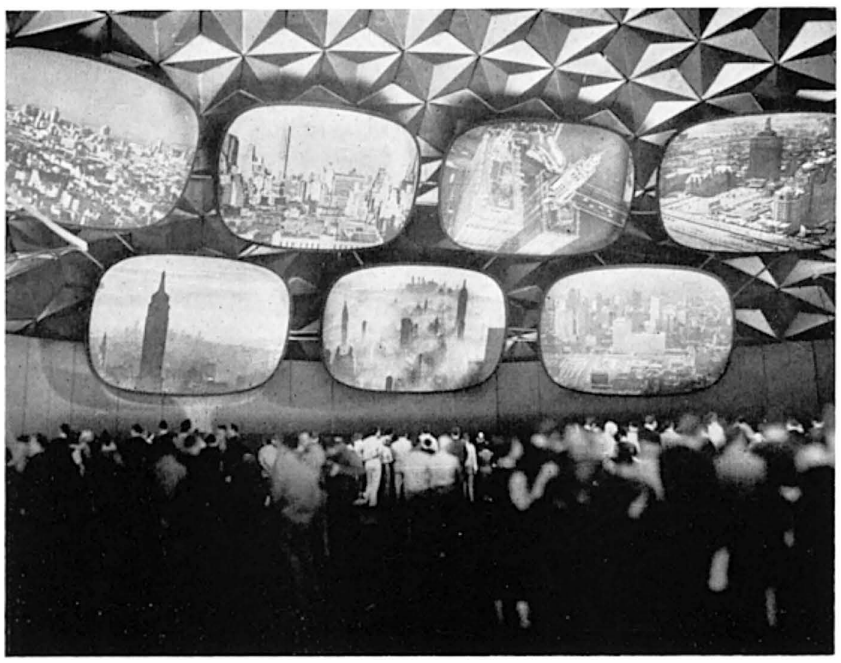
OPEN DOOR IN MOSCOW

AMERICAN NATIONAL EXHIBITION IN MOSCOW
WELTON BECKET & ASSOCIATES, ARCHITECTS & ENGINEERS
GEORGE NELSON, DESIGN DIRECTOR

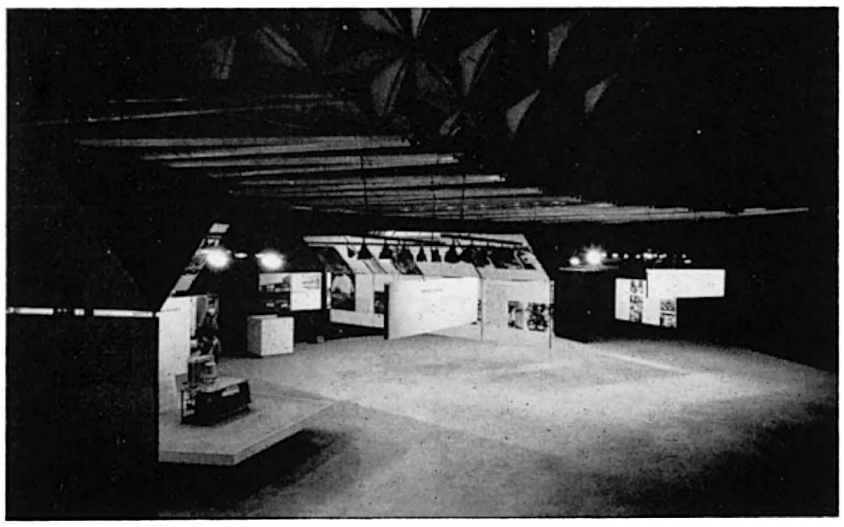
Above: The erection of the 30,000-square-foot dome was around a 130-foot mast equipped with rigging at the center of the come's floor. After a ring of aluminum panels was applied, these were lifted to a sufficient height to allow installation of another perimeter of panels. This section was then lifted for a third set of panels, and so on until the entire dome was raised. The clear span dome was then lowered and anchored to concrete piers spaced around the circumference of the floor. The dome weighs only 104,000 pounds. The patented construction of the dome is based on the mathematical discoveries and geodesic principles of R. Buckminster Fuller.



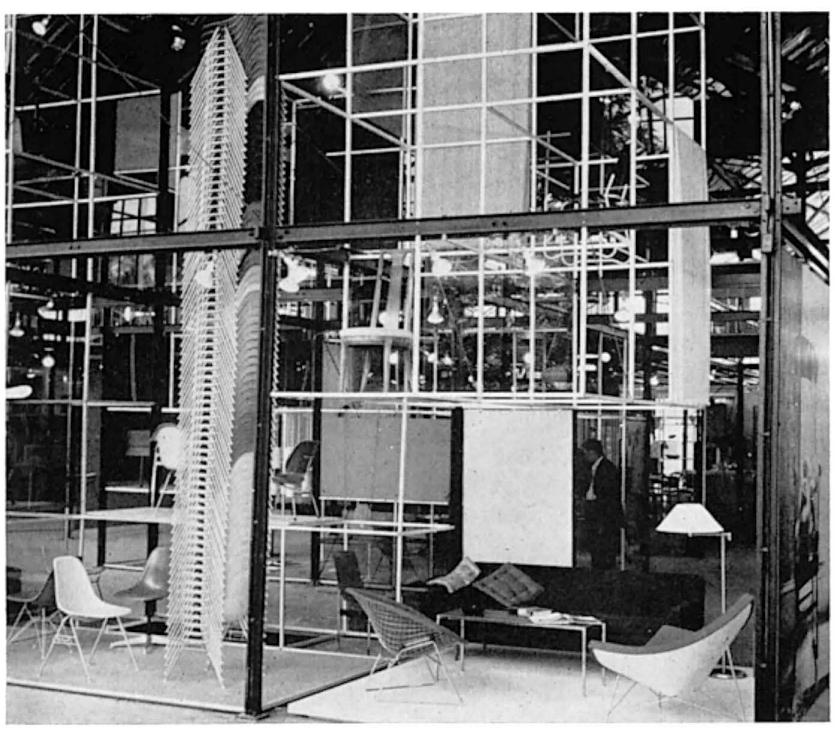




Seven different images of life in America will appear simultaneously on seven giant screens, each 20′ x 30′. This twelve-minute documentary film was produced by Charles Eames. Its purpose is to provide credibility to the story that the Russians will see as they tour the exhibits.



The aluminum geodesic dome contains displays relating to signficant areas of American life including education, medical research, agricultural research, labor, space research, nuclear research, chemical and basic research. These exhibits have been designed and coordinated by George Nelson, director of design for the exhibition.



"JUNGLE-GYM" STRUCTURE has been designed for the display of about five thousand consumer products at the American National Exhibition. This display structure will be housed in a 50,000 square-foot glass fan-shaped building, one of the two main exhibition halls. Made of steel and aluminum, it is a two-level modular system reaching from floor to ceiling and wall to wall of the building to provide maximum display space.

The final words have surely not been written on the American National Exhibition in Moscow which is scheduled to close on September 5, nor on the Soviet Exposition in New York which has closed on August 10. Both are full-scale exhibitions concerned with science, technology and culture and developed according to a reciprocal trade agreement between the United States and the Soviet Union which was signed in Washington on September 10, 1958. At that time, July 1959 was proposed as the opening date for the two shows.

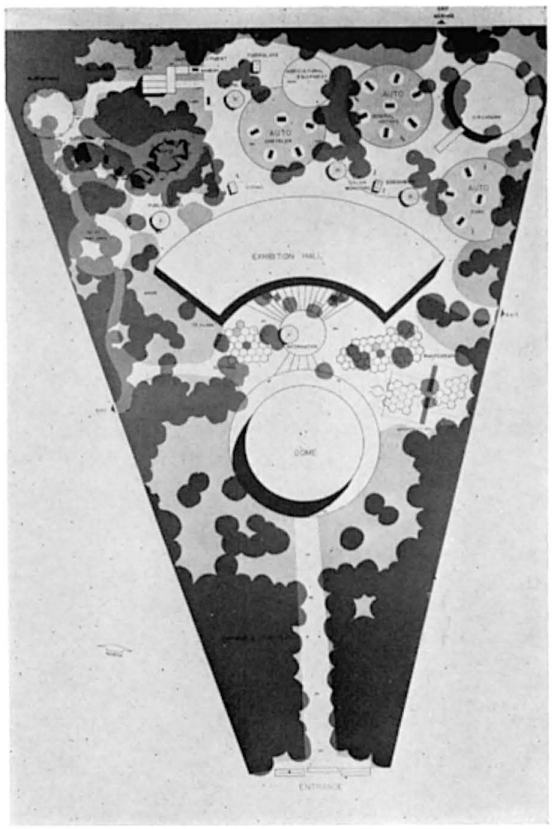
But in November 1958, it became clear that no existing building in Moscow which could be made available for the United States exhibit was suitable. This meant that two buildings or 80,000 square feet of exhibition space had to be designed, constructed and then filled in a logical, splendid and meaningful way to present a broad picture of American life. The contract, formally assigning the industrial design firm of George Nelson and Company, Inc., with the task of designing all the indoor displays, coordinating, and in most cases designing all outdoor exhibits (exceptions are the automobile shows and Circarama), came on December 22—seven months before the proposed opening date. According to the designers, both American and Russian, there was general agreement that the fact of the exchange was of prime importance. Whether the shows were all-inclusive would not be important.

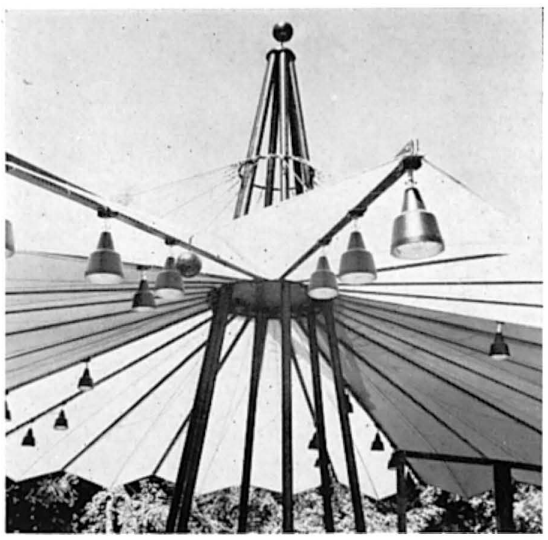
Indeed, the international events in connection with the opening of both exhibitions—the jet-propelled diplomats, the speeches and debates aired around the world—converted the sites into meeting grounds of leading policy makers, and of citizens of both nations who met each other for the first time and whose conversations went far beyond the contents of the exhibition. For a while, at least, the climate in Sokolniki Park was the same as it was at the New York Coliseum, though the exhibitions could not be more dissimilar.

The American approach, was to provide a series of images, the thousands that are necessary to give the broad extensive picture of

(Continued on page 28)

View of the Exhibition Hall with kiosks containing exhibition of American publications.





The fan-shaped Exhibition Hall with the geodesic dome in the foreground; at the far right is the "Family of Man" exhibit.

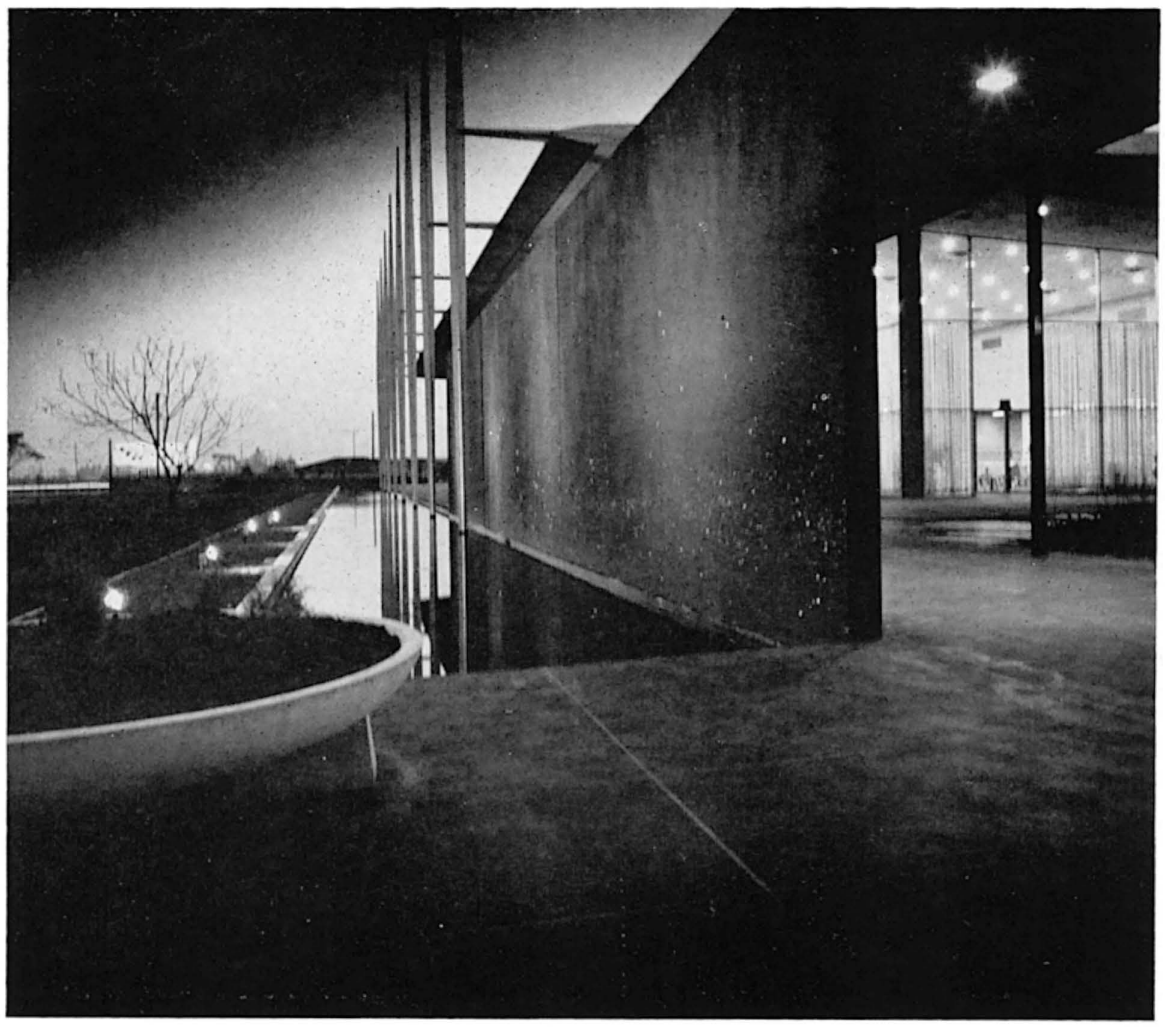
LEFT: Opened on July 25th in Sokolniki Park, a 1500-acre wooded recreational park which is 15 minutes by subway from downtown Moscow, the exhibition will be on view for six weeks. It comprises an area of 300,000 square feet (approximately two city blocks) which has been leased by the United States Government. The purpose is to increase understanding in the Soviet Union of the American people, the land in which they live and the broad range of American life, including American science, technology and culture.
Two main buildings are shown on the plan: a 50,000 square-foot glass pavilion (marked "Exhibition Hall") where some 5,000 products are housed in the unique "jungle-gym" display structure; these products will include household appliances such as refrigerators, dishwashers, and other electrical equipment; home furnishings, a home workshop, sporting equipment, hi-fi, radio and a complete television studio, toys, garden equipment, cameras, kitchens where cooking demonstrations take place, a complete 5-room apartment and a painting exhibit.
The ALUMINUM DOME contains a sober presentation of how America lives, works and plays, with emphasis on science, research, education, health, labor, agriculture and other subjects.
Another group of Fiberglas reinforced-plastic structures in parasol-like shapes—an innovation created by George Nelson—will cover three additional exhibits: Steichen's famed "Family of Man" photography collection, a clothing demonstration and an architectural exhibition under the direction of Peter Blake. Other units as indicated on Site Plan: "Circarama," Walt Disney's 360-degree film; automobiles; agricultural equipment; a model builder's house; a children's playground; voting machine; kiosks with publications, books and others with cosmetic demonstrations; a hi-fi rest area; television color monitors and a boat display.

Moscow

RIGHT: The first all reinforced-plastic structures, free-form "parasols," were designed by George Nelson to provide pavilions for the American National Exhibition in Moscow. They are used here to shelter the famed "Family of Man" photography collection. Each structure is supported by a 16-foot column and the ceilings interlock to form the entire cluster—47 units in all. 10-foot panels surround this pavilion, and provide flexible display areas for some 500 pictures in the group.

EVENING SPECTACLE at the American National Exhibition. These glittering reinforced-plastic structures form a flower or parasol-like shelter for the fashion shows held there, as part of the overall exhibition.

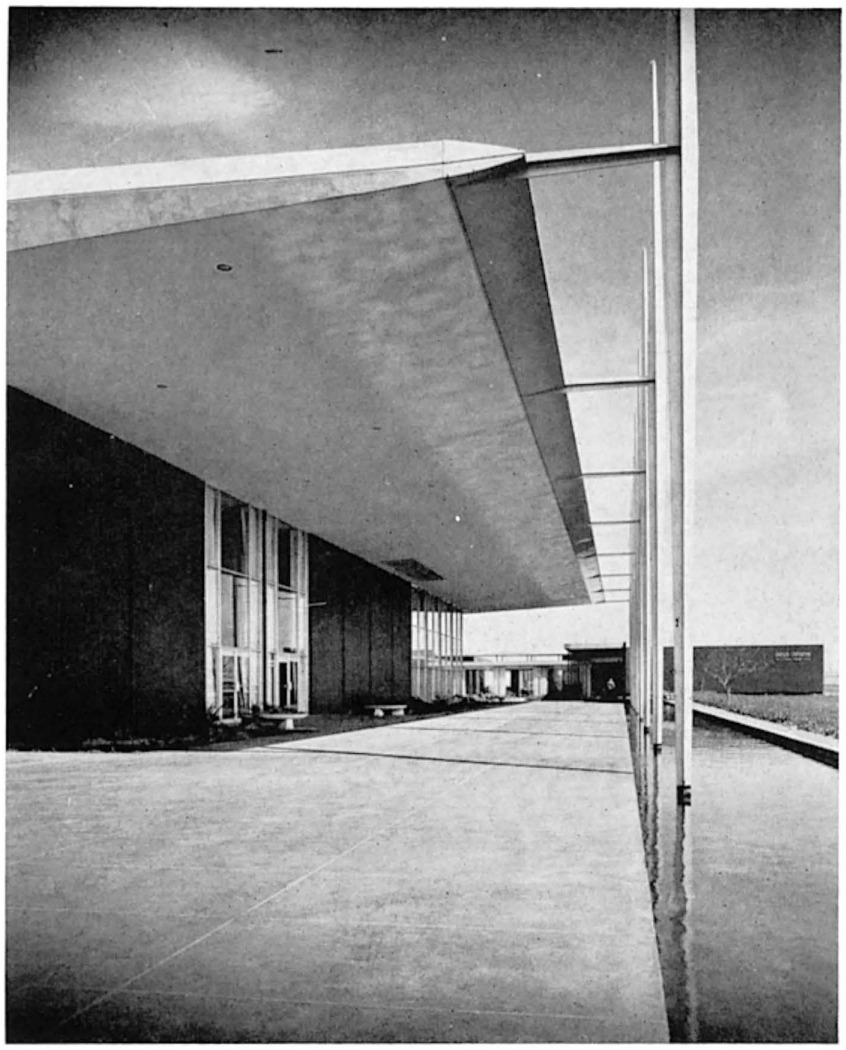
TRAINING CENTER BY PEREIRA AND LUCKMAN, ARCHITECTS



The project was to create a functional automotive training center of approximately 65,000 square feet with an auditorium, a cafeteria, sales classrooms, technical training rooms, car display areas and an administration department on a site adjacent to a major freeway.

The auditorium and cafeteria were combined into one unit with the administration functions in the second unit, and the training and technical labs into the third. All were placed around a central display court and connected by covered passages.

The auditorium and cafeteria were roofed by a giant truss and placed on a platform surrounded by a moat of water. The entrance to the administration building consists of a series of steps over the water into the central garden court. The planned separation of activities tied together by the covered area ways was organized around the carefully landscaped court. The color schemes are a contrast of black, blue and silver. Construction is steel trusses, and concrete with glass window walls.



PHOTOGRAPHS BY JULIUS SHULMAN

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SCULPTURAL CONSULTANT:
MALCOLM LELAND

INTERIORS:
MARIA BERGSON

OWNERS & DEVELOPERS:
GILBERT & ROTHSCHILD, INC.

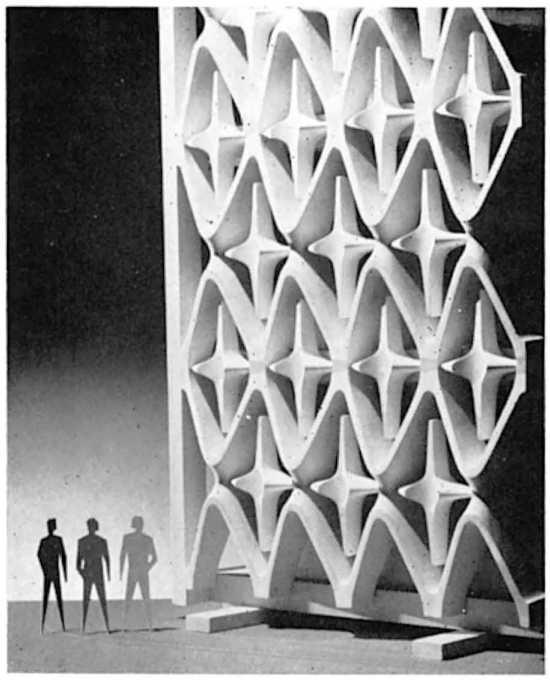
LEFT: HIGH-LEVEL VIEW OF EAST FACADE. SHOWS FOLDED PLATE ROOF OF PENTHOUSE OFFICE STRUCTURE, ROOF GARDEN, AND PARKING ENTRANCE.

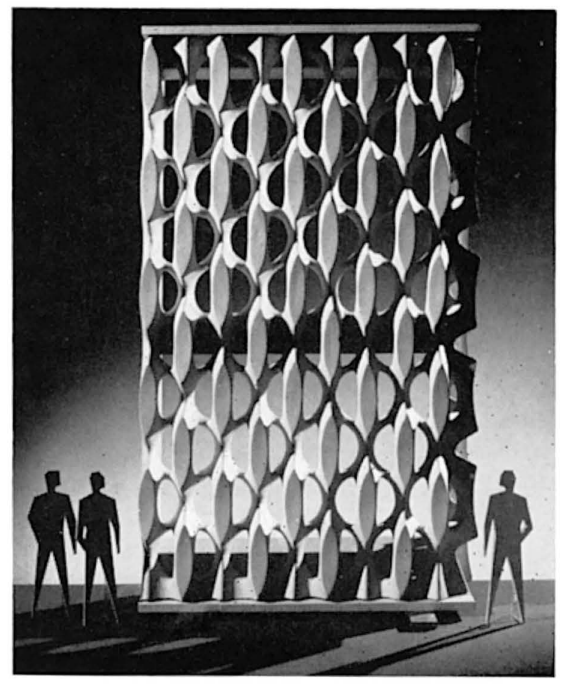
The corner site gave the architects an opportunity to develop a high-rise structure with two visible facades. The functional requirements were for a 13-story overall height; subterranean and above-ground parking levels; a ground floor commercial area and a space specially designed for the headquarters of the client, the American Cement Corporation.

The client requested an architectural solution which would use concrete in an advanced structural technique, and at the same time incorporate the fluid and sculptural possibilities of this material. The project employs a T-form tower, ten stories high, resting on eight pillars, with a three-story base structure and garage occupying the entire site. Above the ground floor are two floors of parking and, at the fourth-floor level, a separate octagonal penthouse under a folded-plate roof provides private executive offices within a landscaped roof garden. The north and south walls of the tower are designed as a diagonal load-bearing grille wall—"X" shaped sections, each two-stories high, are poured with reinforcing steel in place in the mold and pinned ingeniously at all four corners—with a recessed glass curtain wall behind. The south facade receives sun protection in the shape of molded concrete sunfin insets within each "X" of the grille. The eastern wall overlooks a park through a glass curtain wall protected by sliding metal sun-screens.

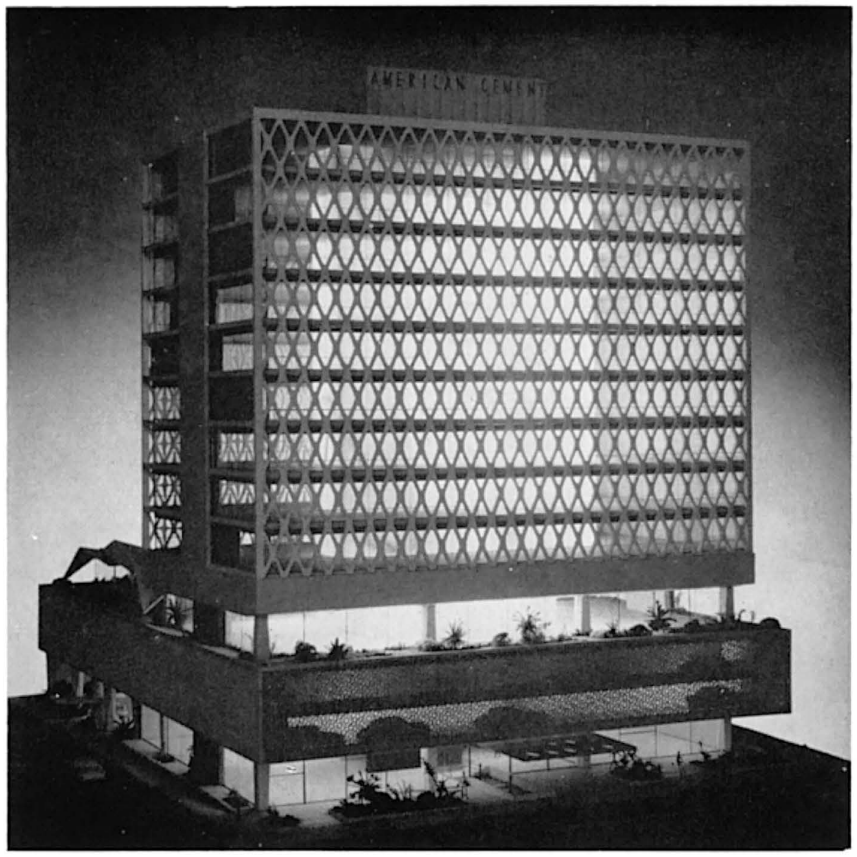
Sculptural consultant, Malcolm Leland, retained by the architects, refined the basic "X" form of the supporting grille wall into a dimensional form. He also developed a second major grille on the building—that surrounding the second and third floor parking areas. In working with a sculptural concept for such a major structure, Leland feels that a sculptor must have an intuitive approach to architectural components to add to his basic knowledge of structure and building code requirements. Practical limitations are assimilated and become part of the intuitive approach with the final sculptural design incorporating into form and feeling such typical limitations as seismic and windload problems, methods of installation and erection, mold-making and casting, costs, ventilation, and sun control needs.

As a consultant, Leland is able to contribute individuality and human scale, contrasting markedly to the trite use of stock, machine-made components so much in current use. Working with light and shadow, he coaxes many elusive and subtle gradations from the surface of the form and ties the two-dimensional design into a unified compound of complex architectural ideas, directly expressed as a harmonious relationship of masses in three dimensions.

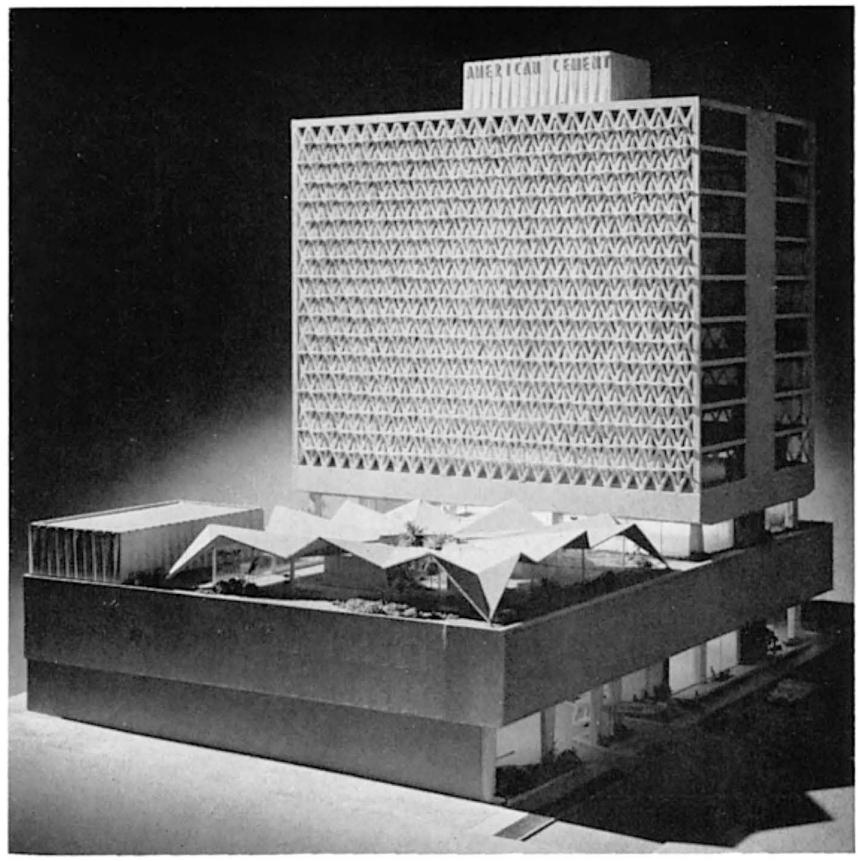




LEFT: DETAIL OF TWO-STORY GRILLE FOR BASE STRUCTURE GARAGE. UNITS ARE CAST IN TWO-STORY LONGITUDINAL SINGLE SECTIONS AND ARE PINNED TOP, MIDDLE AND BOTTOM. THEY ARE NON-LOAD BEARING, BUT ACT AS VENTILATIVE SCREENS FOR GARAGE.



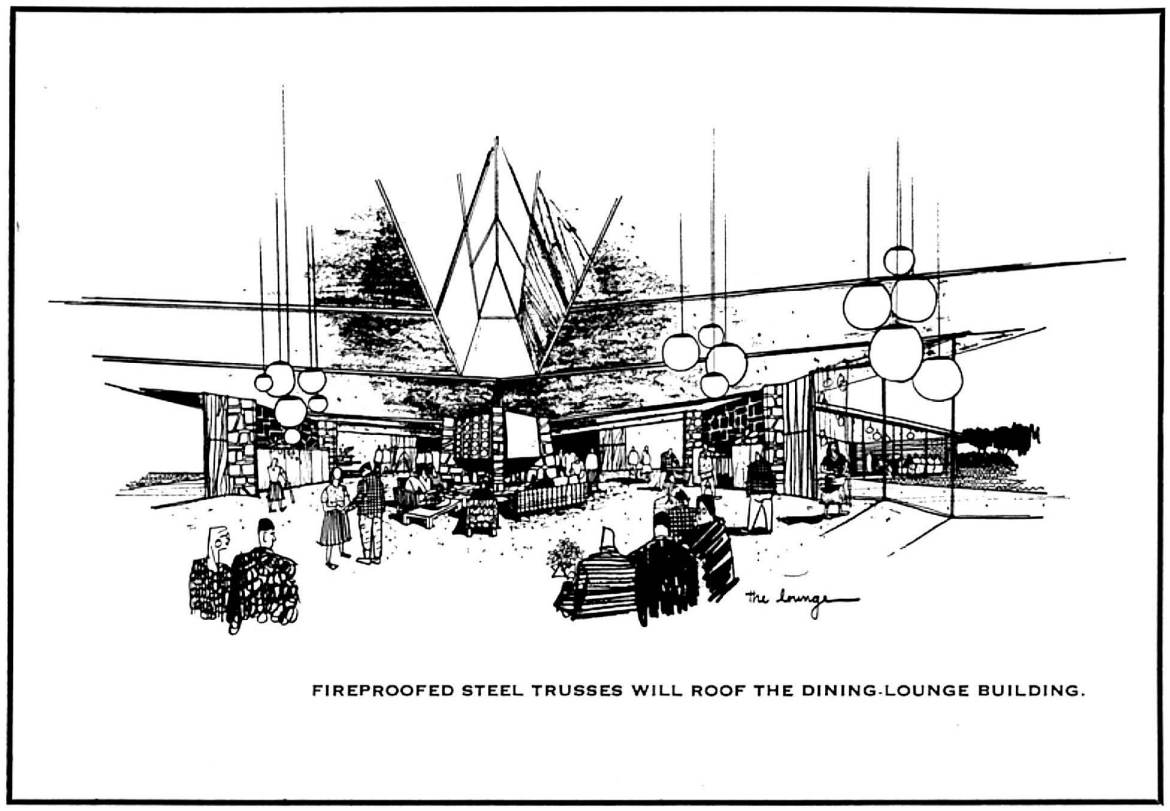
BOULEVARD FACADE BY NIGHT WITH BACK-LIGHTED VIEW OF DIAGONAL STRUCTURAL GRID-WALL.



SOUTH FACADE OF TOWER. SUN-FIN INSETS SHOWN IN PLACE WITH DIAGONAL GRID LOAD-BEARING WALL.

BELOW: EAST VIEW. THIS FACADE WILL OVERLOOK A PARK. CONTAINS GROUND-FLOOR GARAGE ENTRANCE AND DEMONSTRATES T-FORM STRUCTURE OF THE TOWER WITH ITS TWO LOAD-BEARING GRID-WALLS ON NORTH AND SOUTH FACADES. SUN PROTECTION IS GIVEN BY SCREENS ADJUSTABLE ON TRACKS OVER CURTAIN WALL.

PHOTOGRAPHS BY HERBERT BRUCE CROSS



FIREPROOFED STEEL TRUSSES WILL ROOF THE DINING-LOUNGE BUILDING.

A RESIDENTIAL COMMUNITY FOR SENIOR CITIZENS

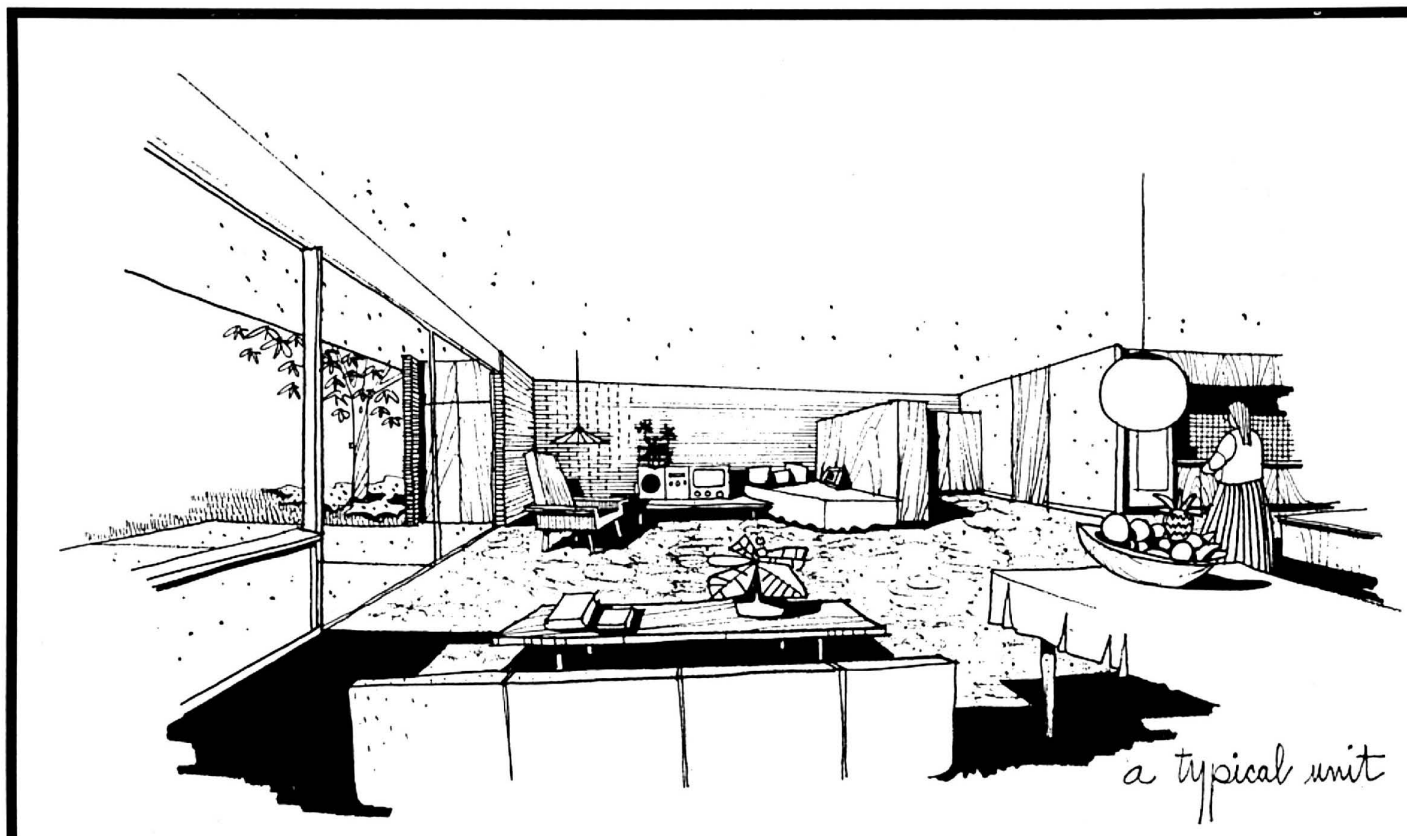
BY KENNETH LIND ASSOCIATES

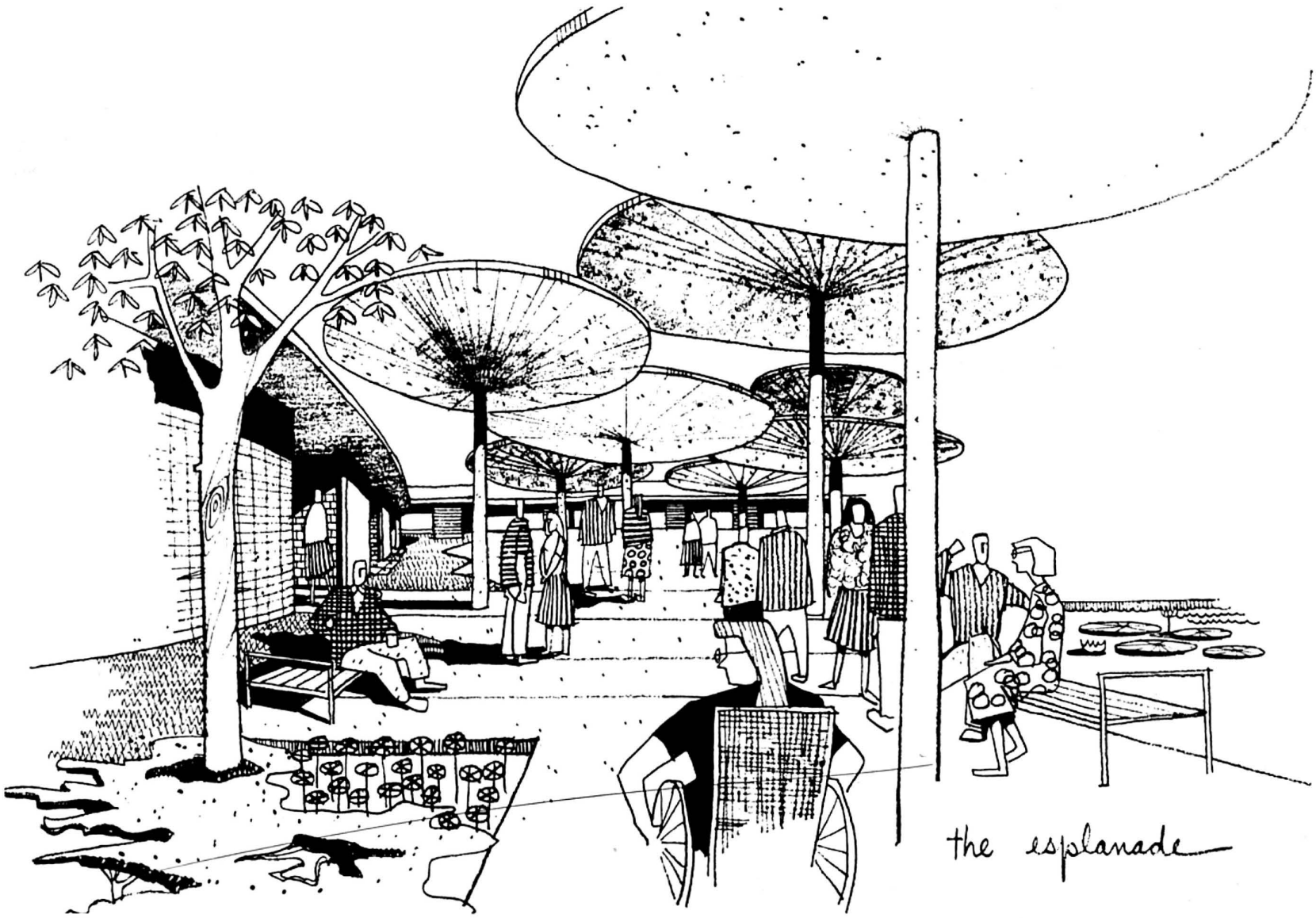
THE MT. SAN ANTONIO GARDENS FOR CONGREGATIONAL HOMES

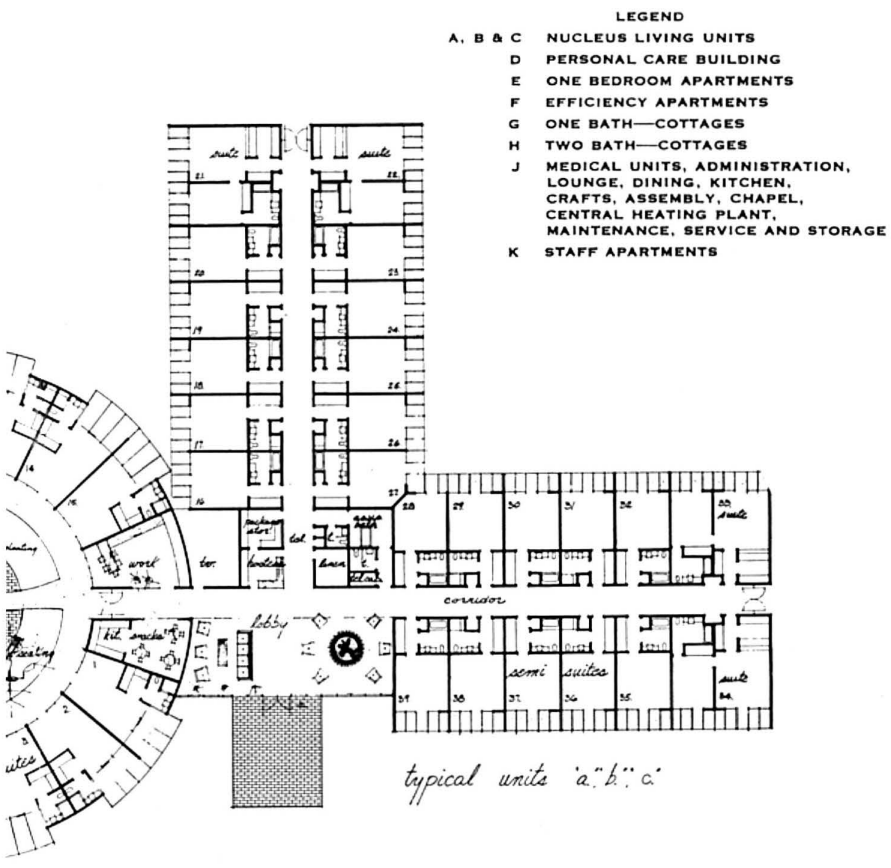
The object was to create an architectural environment to give aged people a place of dignity with which they could identify themselves with pride, and to provide a physical environment which would accommodate a wide range of interests in a village atmosphere. It was felt that since the old have witnessed several changes of architectural styles it was best to recapture the charm and the nostalgia through design and material selection rather than to copy their forms.

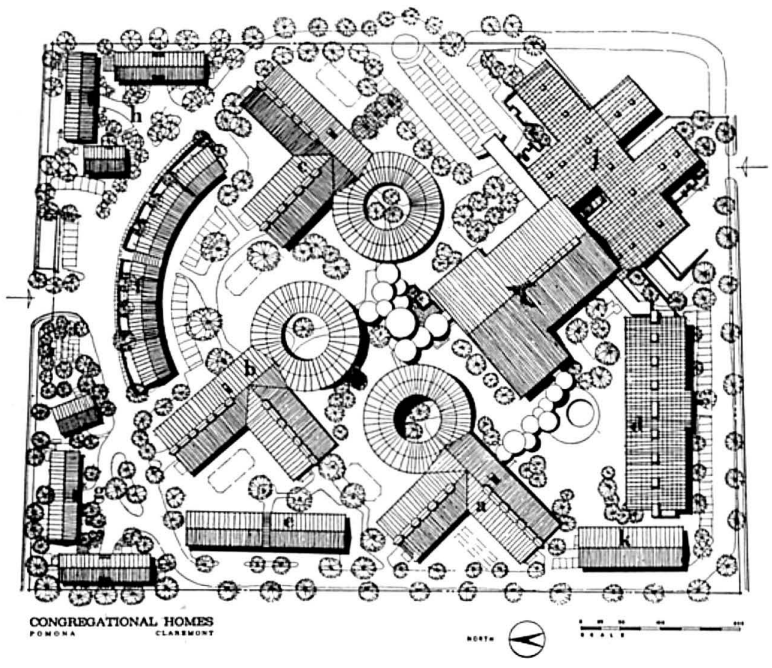
While the buildings will be composed of standardized units of several types, the facades will be varied to avoid monotony, giving each building an individuality of its own. Interior in the circular buildings will be of varied design. Distance will be obviated by providing pleasant scenes and numerous seating areas along the way. Adequate parking within close distance of the units will be accomplished by several small landscaped lots instead of one large area. Many informal gathering places are offered. In all instances, interiors are level and accommodate wheel chair maneuvers, while outside areas are gently graded or ramped with steps being completely avoided. Interior furnishings are to be supplied by the occupant to strengthen a sense of belonging. Generous color schemes to suit the individual will avoid monotony. All units will be fully carpeted. Air conditioning, push button devices, extensive safety features, an efficient intercommunication system are planned for convenience and emergency. Landscaping will include ground cover, lawns, and an umbrella of many trees to diffuse the strong sunlight of the semi-arid region.

The general purpose of the project under the present administration is to give old people an opportunity to live in pleasant surroundings, where they can form new social roots and enjoy many planned activities.





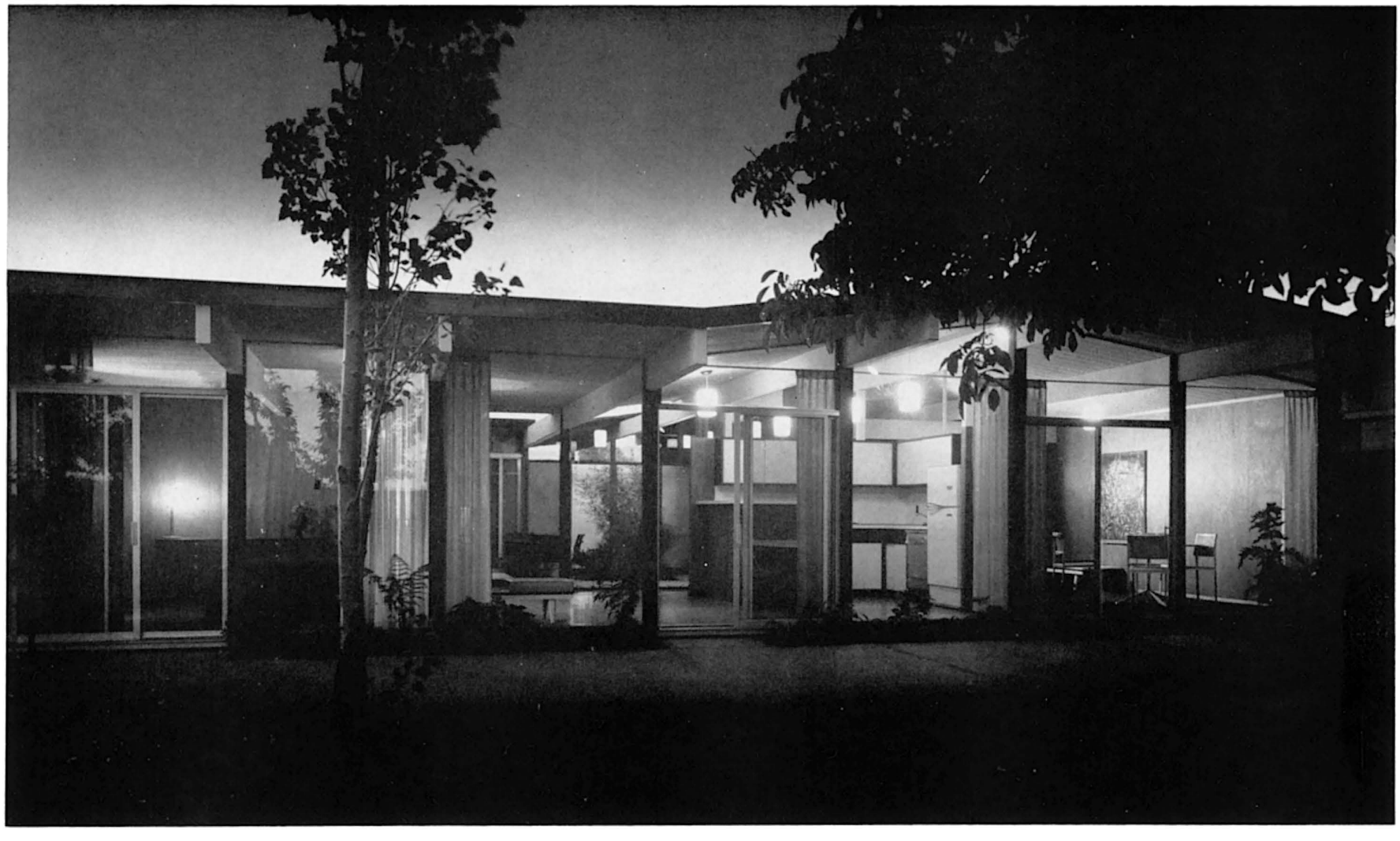




LEFT: A TYPICAL CONGREGATE BUILDING, WHOSE UNITS ARE PROTOTYPE FOR THE PROJECT.

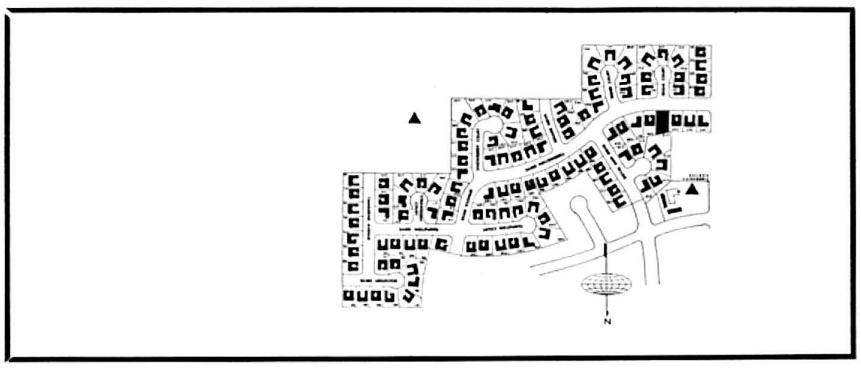
EACH UNIT HAS A DIRECT INTERCOM HOOK-UP WITH THE HOSTESS. EACH BUILDING IS SUFFICIENT FOR LOUNGING AND WORKING SPACES.

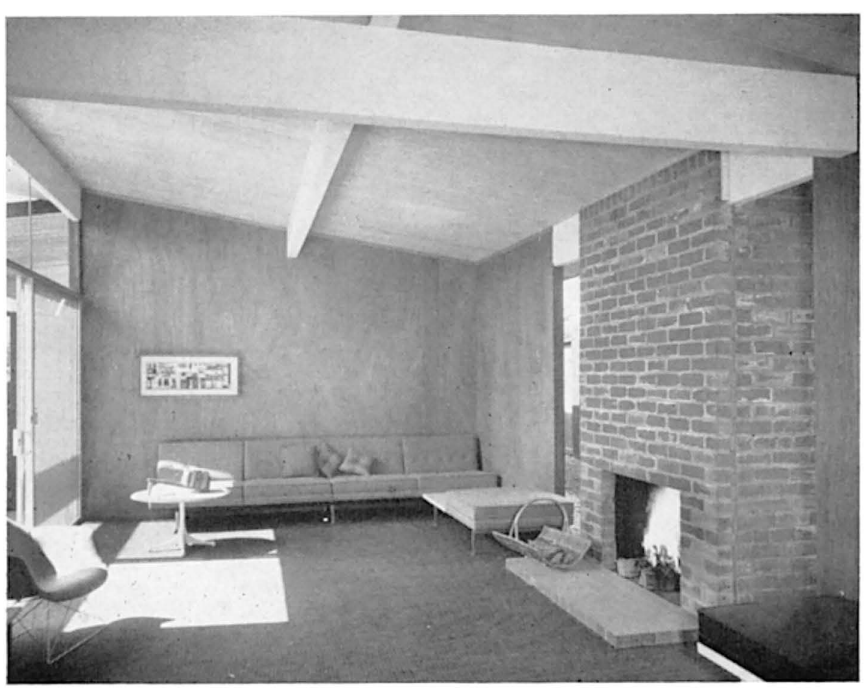
ABOVE: THE TOPOGRAPHY PRESENTS A MODERATE SLOPING SITE WHICH IS DISTURBED AS LITTLE AS POSSIBLE. THE RESIDENTIAL CHARACTER OF THE PROJECT WILL RECALL THE RESIDENTIAL COMMUNITY ENVELOPING IT. MATERIALS WILL BE MASONRY, WOOD AND GLASS.

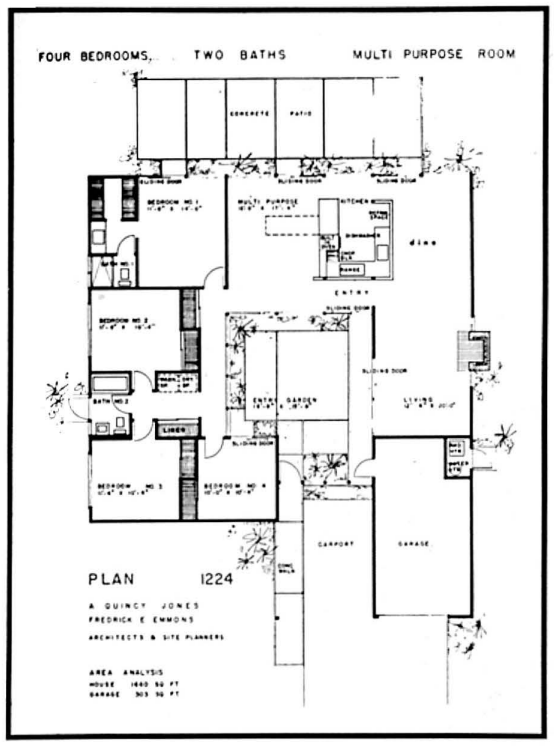


HOUSE FOR A PLANNED COMMUNITY BY A. QUINCY JONES AND FREDERICK E. EMMONS, ARCHITECTS AND ASSOCIATES

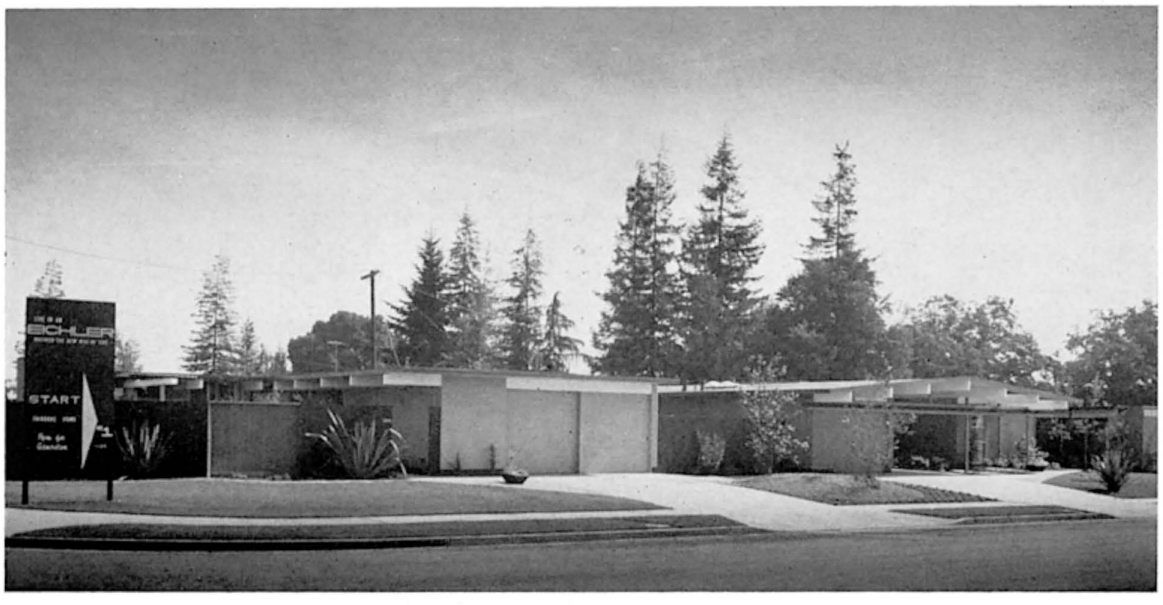
FOR EICHLER HOMES

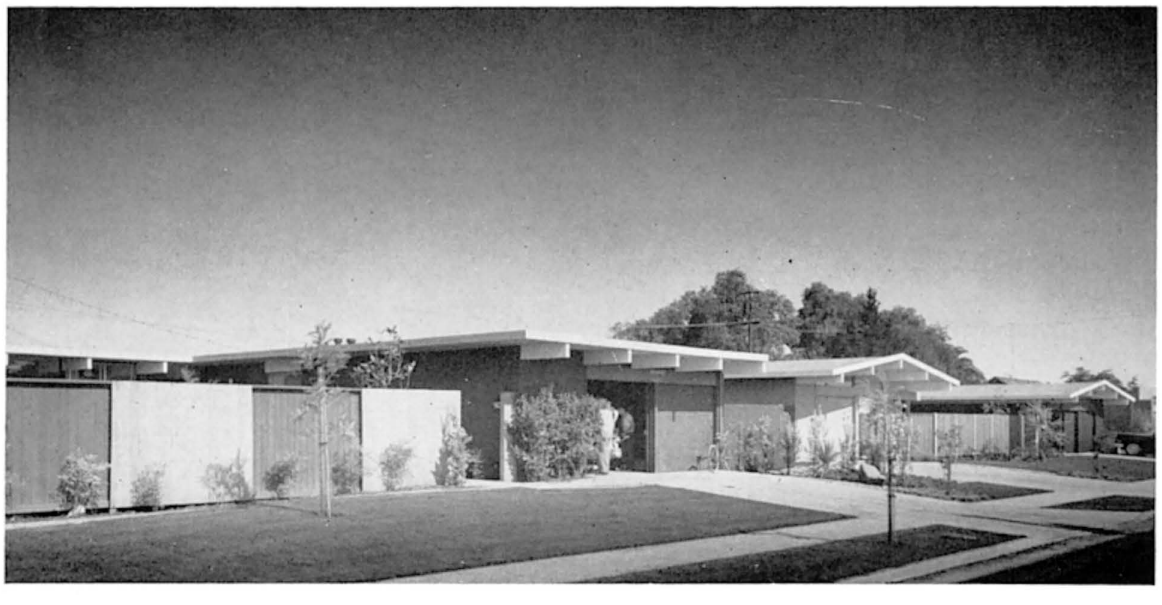






PHOTOGRAPHS BY AL WALDIS





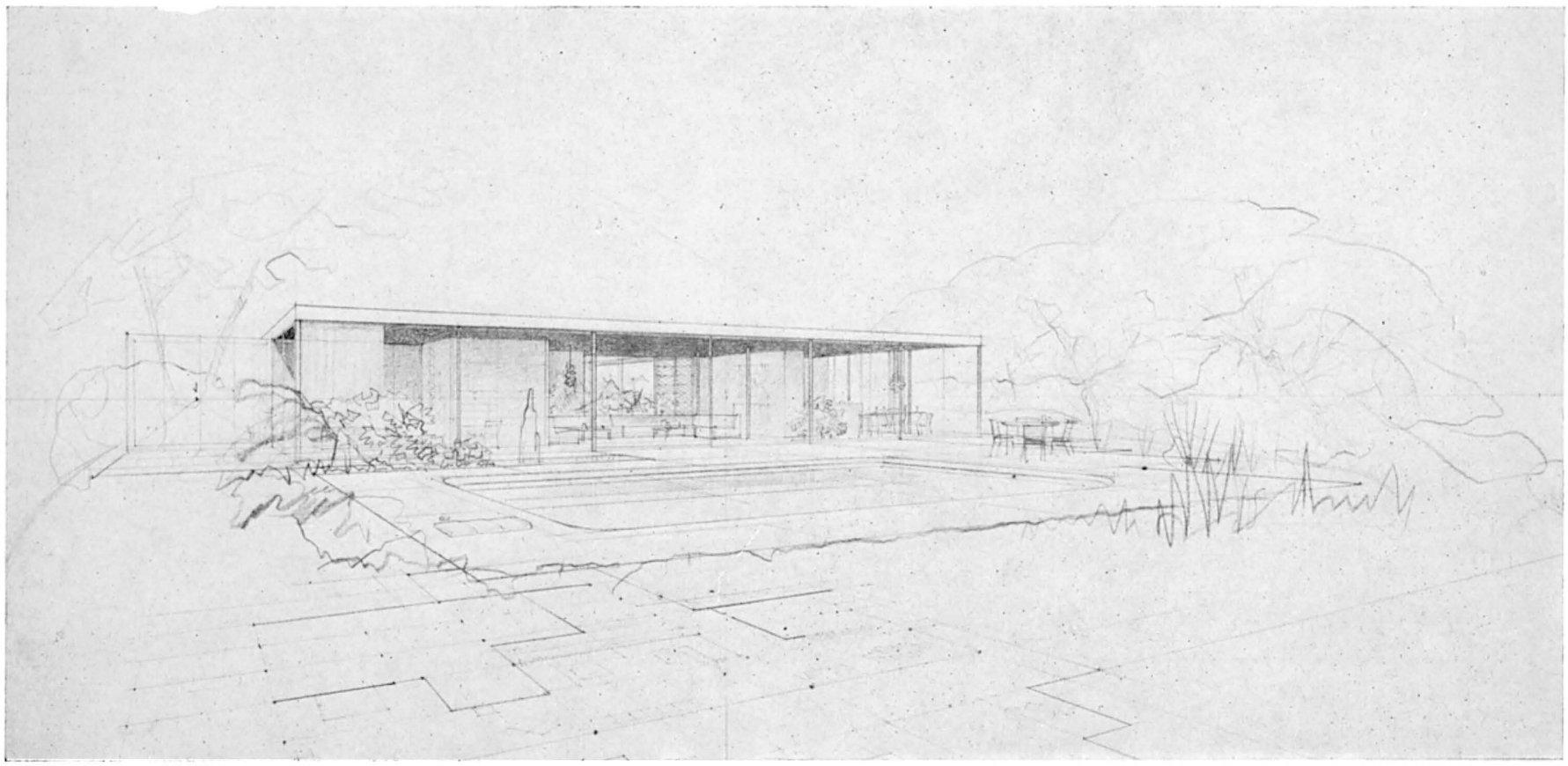
This unit is in one of the most successful of the planned home development enterprises. The obvious advantages of mass production used with taste and intelligence resulted in the creation of a superior individual and community environment.

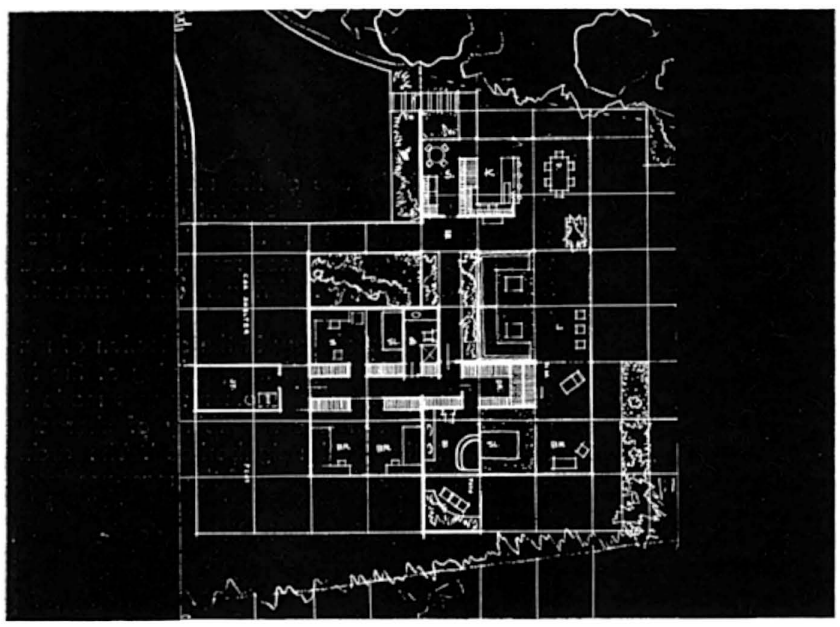
The design vocabulary in the selection of materials, use of land and the planning of the individual houses in this community was made in order to establish a compatibility of character throughout the total neighborhood. The architects feel that in the area of the mass-produced houses, it is important to attain this unity. This particular house is built in the second unit of a community development in Sunnyvale, California. 192 houses have been built and sold in the two units. 107 houses are to be built in the third unit during the remainder of this year. The total community has been planned with 299 homes and when completed will contain a community center, elementary school site, commercial facilities and several church sites.

The house illustrated is one of five models and has 1661 square feet of enclosed livable space. The protected entry garden is enclosed in a manner to make outdoor living possible for the majority of the year. This enclosed area provides the space for infant play under the supervision of the mother with little worry of wandering off the property. The house is of dry construction with post, beam and two-inch tongue and groove construction. Heating is hot water radiant heat with copper tubing in the floor slab. The plan was developed to provide maximum use of the individual lot, and still respect the building setbacks as established by the planning commission.

This house in the community provides a compact four bedroom wing. In some cases, the fourth bedroom is used as a study with an excellent relation to the entry garden. The direct access to this room through the sliding door from the entry garden permits many uses of the room, such as home office, quiet study, hobby room, guest room and family bedroom. There is direct access to the second bath from the outside.

(Continued on page 28)



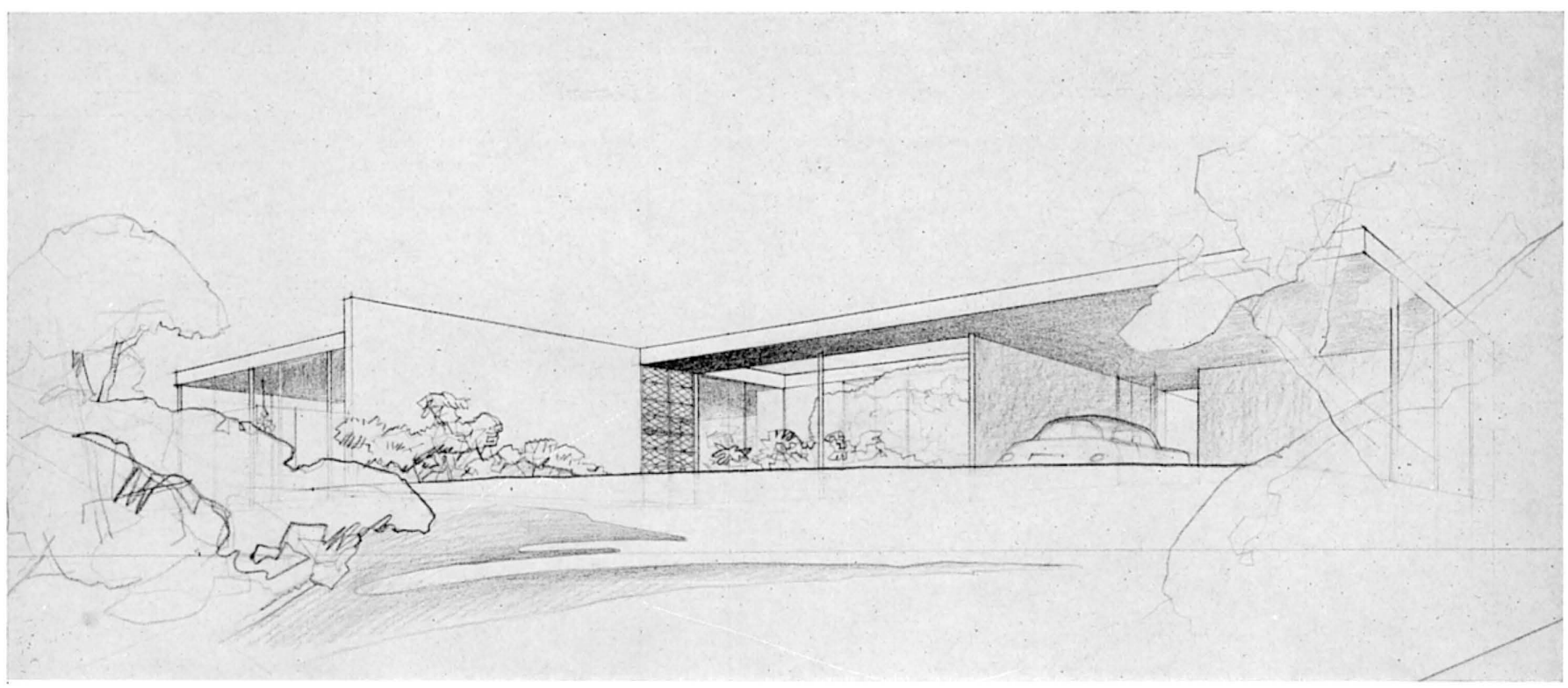


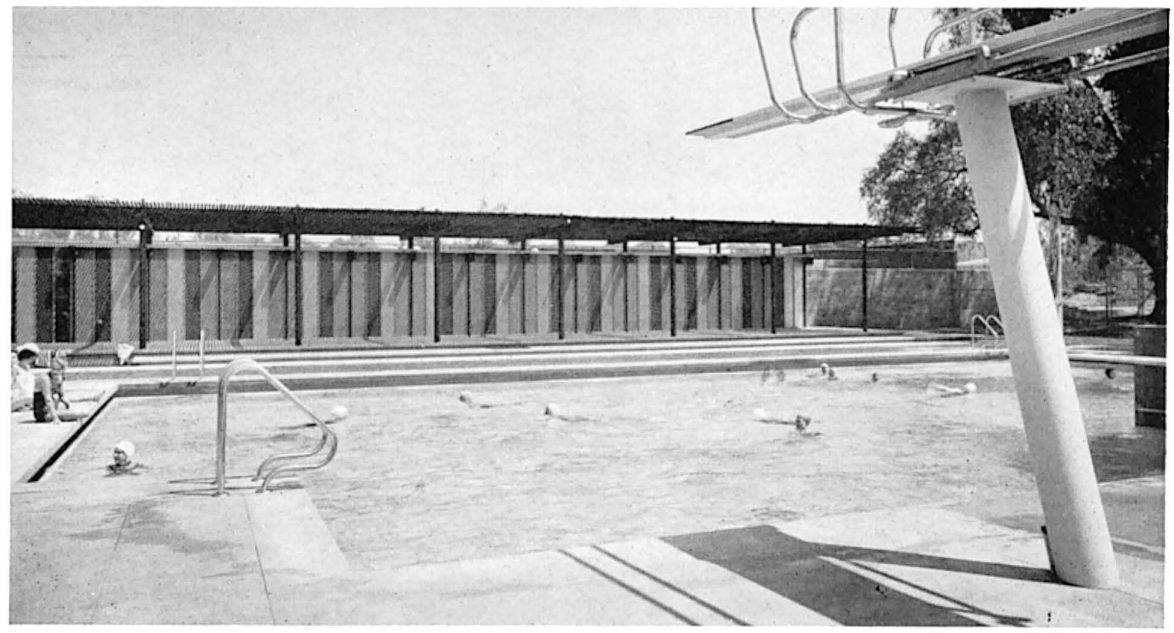
HOUSE BY THORNTON M. ABELL, ARCHITECT

The site is a plateau high up on the side of a canyon, with a view in three directions. Around the plateau are natural wooded slopes to the street below.

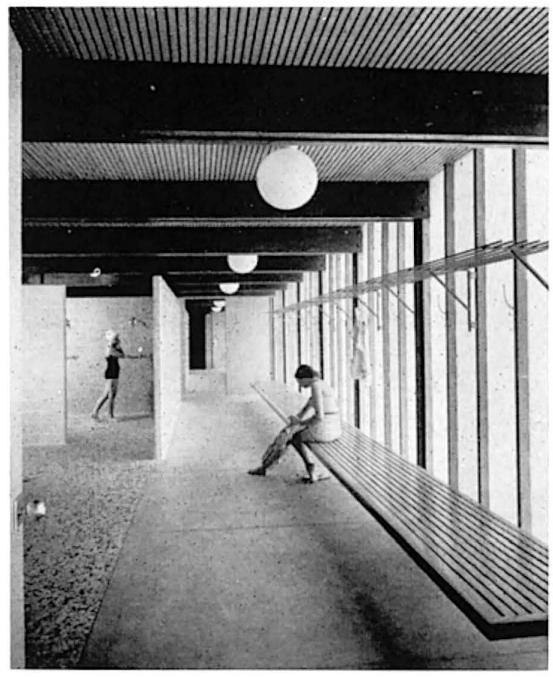
The basic requirement was for a somewhat formal living space. It was desired to achieve a degree of elegance by relationships rather than by the use of many costly materials. The owners' bedroom is actually a study end of the living room with a sliding wall as separation, and a sleeping alcove. Adjoining is a dressing area and large bath with patio. The dining end overlooks a grove of beautiful trees. The kitchen is open but can be closed off with folding panels. There are two children's rooms and a room that can be used for private study, maid or guest, with another bath. There is considerable indoor planting to integrate with outdoor areas.

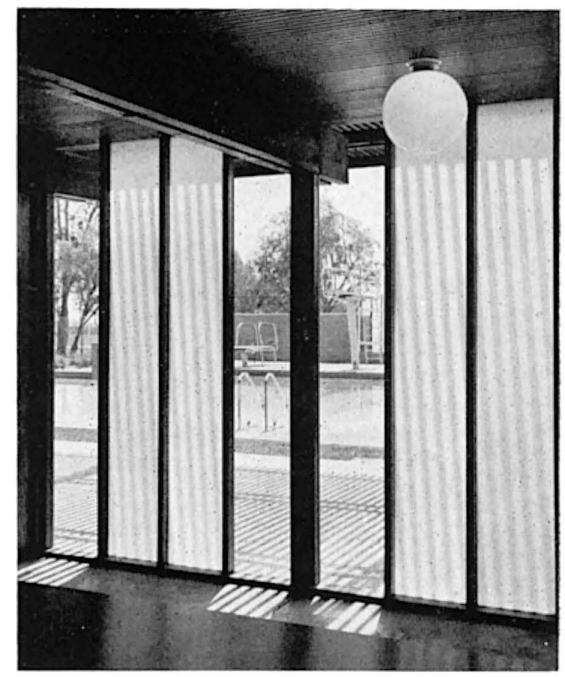
The construction is a modular steel beam and steel tube column system; concrete slab floor with terrazzo, carpet and vinyl finishes; wood roof joists and stud filler walls; exterior plaster and interior drywall finishes.





PHOTOGRAPHS BY MARVIN RAND

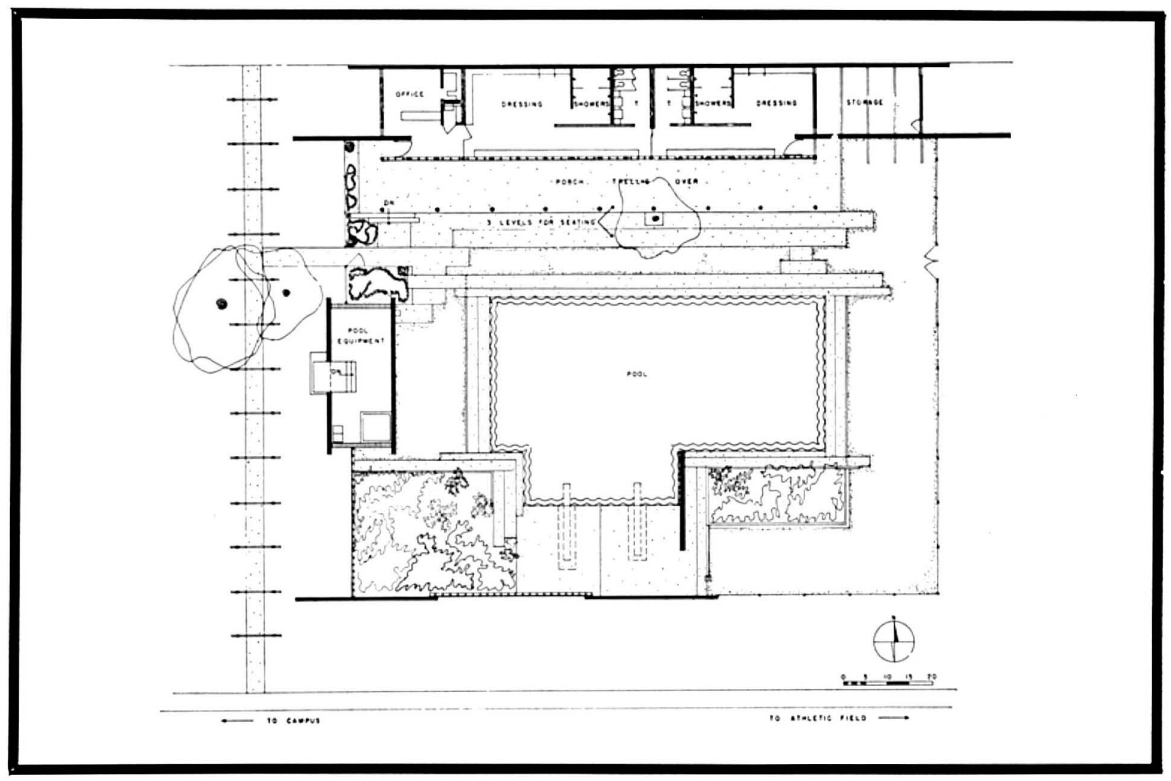


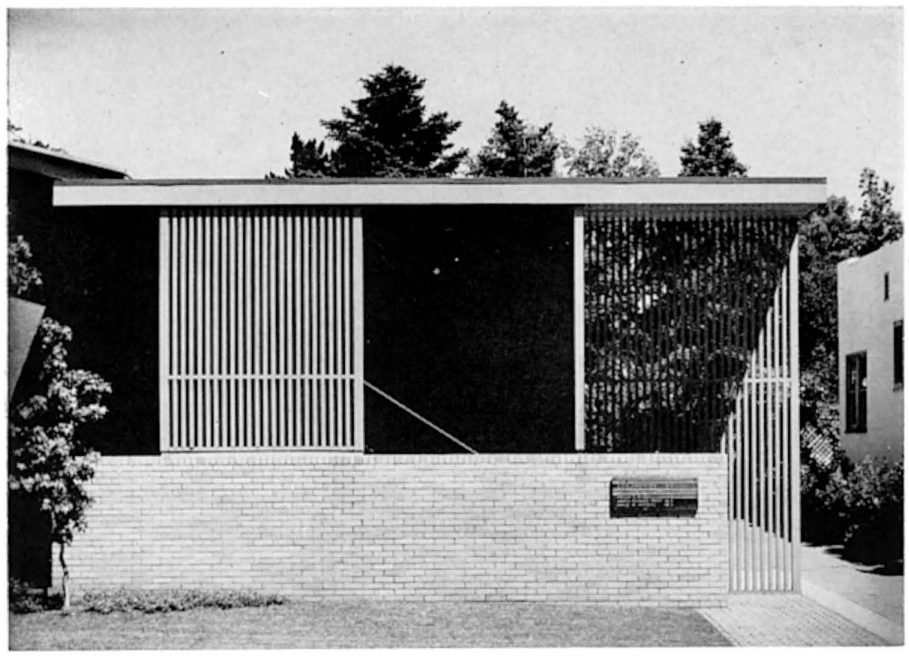


A BATH HOUSE BUILDING BY SMITH AND WILLIAMS, ARCHITECTS; EDWARD HUNTSMAN-TROUT, LANDSCAPE ARCHITECT

The purpose of this project was to create a swimming park rather than the concrete-paved, sterile enclosure usual in this type of facility. Designing within a limited budget, the architects achieved a beautiful pavilion character in the pool building. Instead of "poking holes in the wall," or for privacy's sake using clerestory windows, it was decided to glaze the entire wall facing the pool, and to avoid the monotony of a long expanse of glass by alternating frosted glass panels in white, opal and blue, with several of the office panes in clear glass to permit supervision by one person.

Glazed structural tile walls separating the shower and toilet areas from the dressing rooms not only give an immaculate look to the interior but considerably cut the cost of maintenance. The low-maintenance factor was carried on by a large-chip terrazzo floor and a softly colored concrete slab floor. This slab extends past the glass wall, forming a wide sitting area facing the swimming pool, shaded by a wood trellis, from which the pool deck is reached by wide concrete steps which serve as "grandstand" on special occasions for swim meets and other collegiate sporting events.

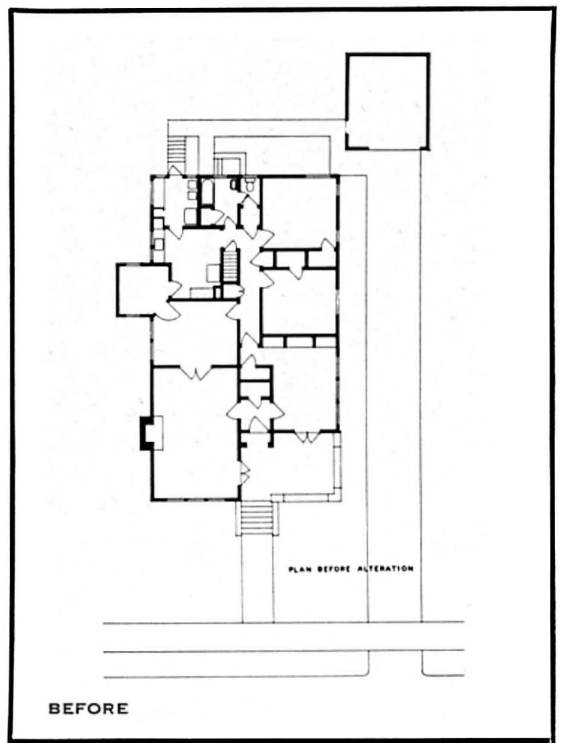




This small building for six psychiatrists has been converted from a residence and now contains a waiting room and reception area, six consulting offices, public and private rest rooms and a pantry for the doctors' use. The project was completed with the minimum of structural changes. Soundproofing was provided by doubling the partitions between rooms and inserting an insulating blanket core, with the partitions being finished with ash paneling.

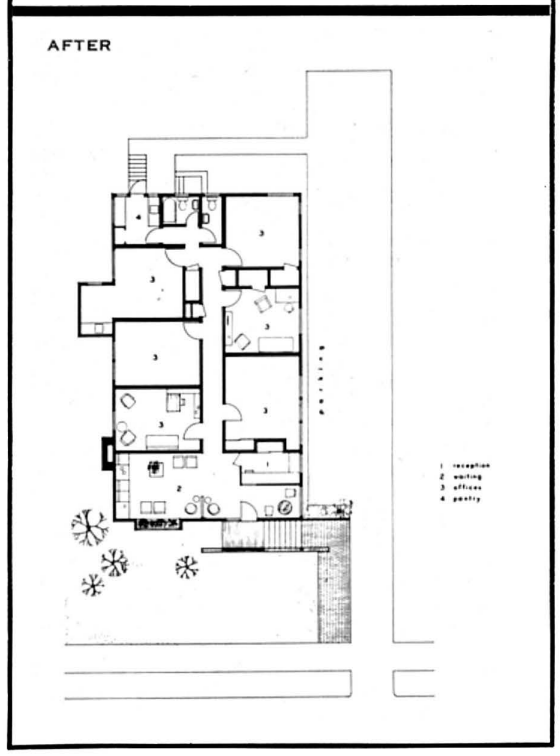
The remainder of the walls is plaster painted off-white. The ceiling over the reception area has been lowered and finished with the same fir boarding as that over the outside entrance, thus creating a continuous plane overhead. A screen of aluminum honeycomb cellular construction separates the entrance door from the waiting room. The rooms, though small, function well and give a feeling of spaciousness and repose.

SMALL MEDICAL BUILDING BY JAMES LEEFE, ARCHITECT

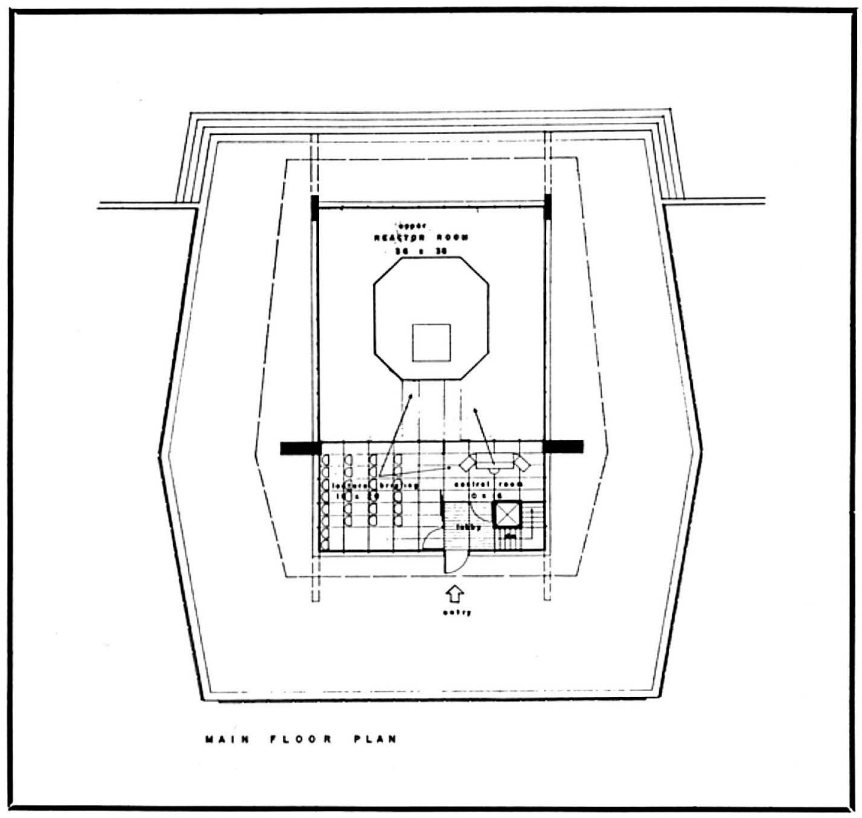


BEFORE

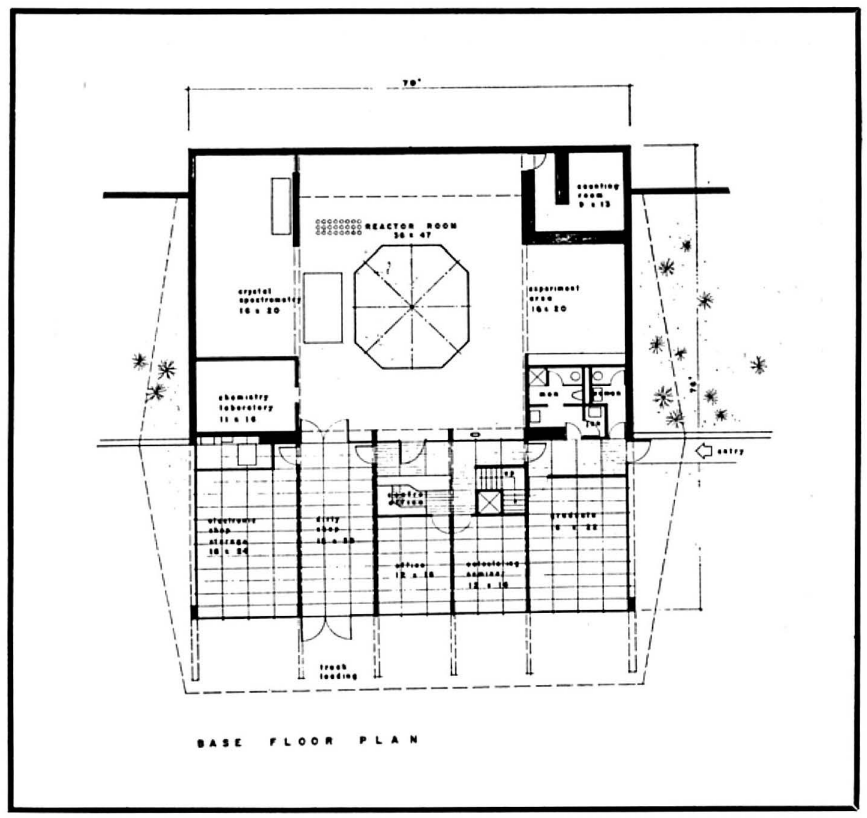
AFTER



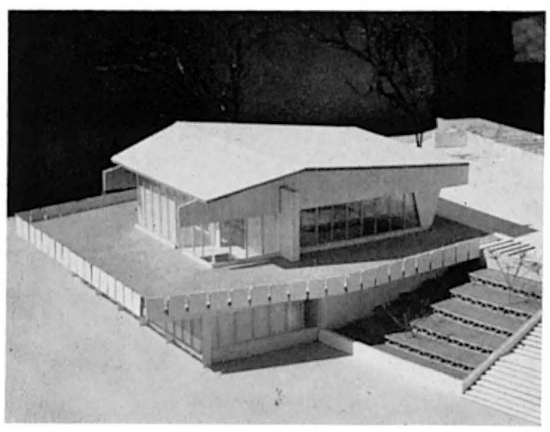
PHOTOGRAPHS BY DEAN STONE, HUGO STECCATI

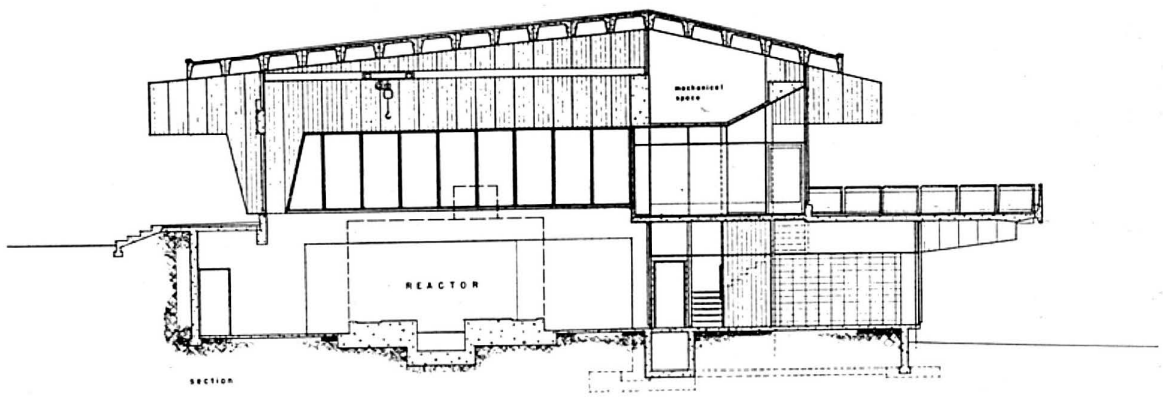


MAIN FLOOR PLAN



BASE FLOOR PLAN





WENDELL LOVETT a.i.a.
DANIEL STREISSGUTH
GENE ZEMA a.i.a.
architects

ROBERT CHITTOCK landscape architect

SPENCER MOSELEY painter
CHARLES SMITH sculptor
artists

GERARD TORRENCE structural engineer

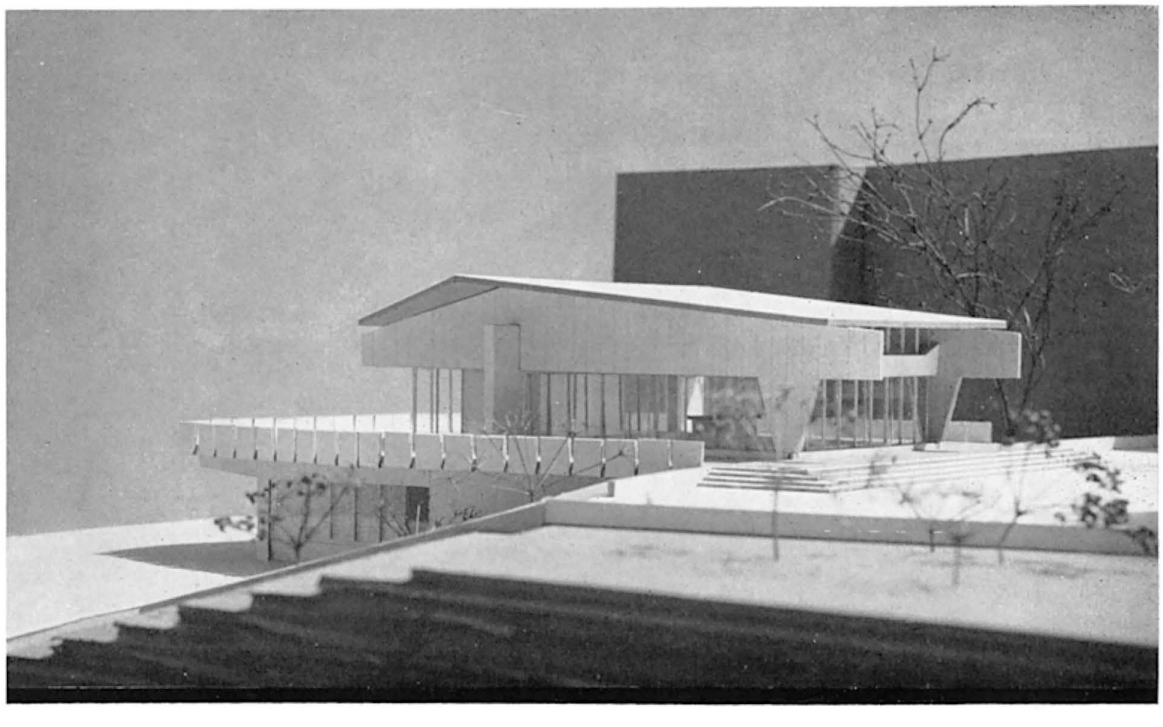
The new reactor building for the University of Washington has been designed to train students in the operation of nuclear power plants and also to serve as a research facility for several of the departments of the College of Engineering.

Placed between existing buildings in a large triangular site and adjoining a wide exhibition plaza, the new structure provides a natural focal point for the engineering building group. The broad deck surrounding the upper portion of the structure will be used for viewing the reactor in operation as well as the inspection of outdoor exhibits which will be sponsored by the Engineering Department.

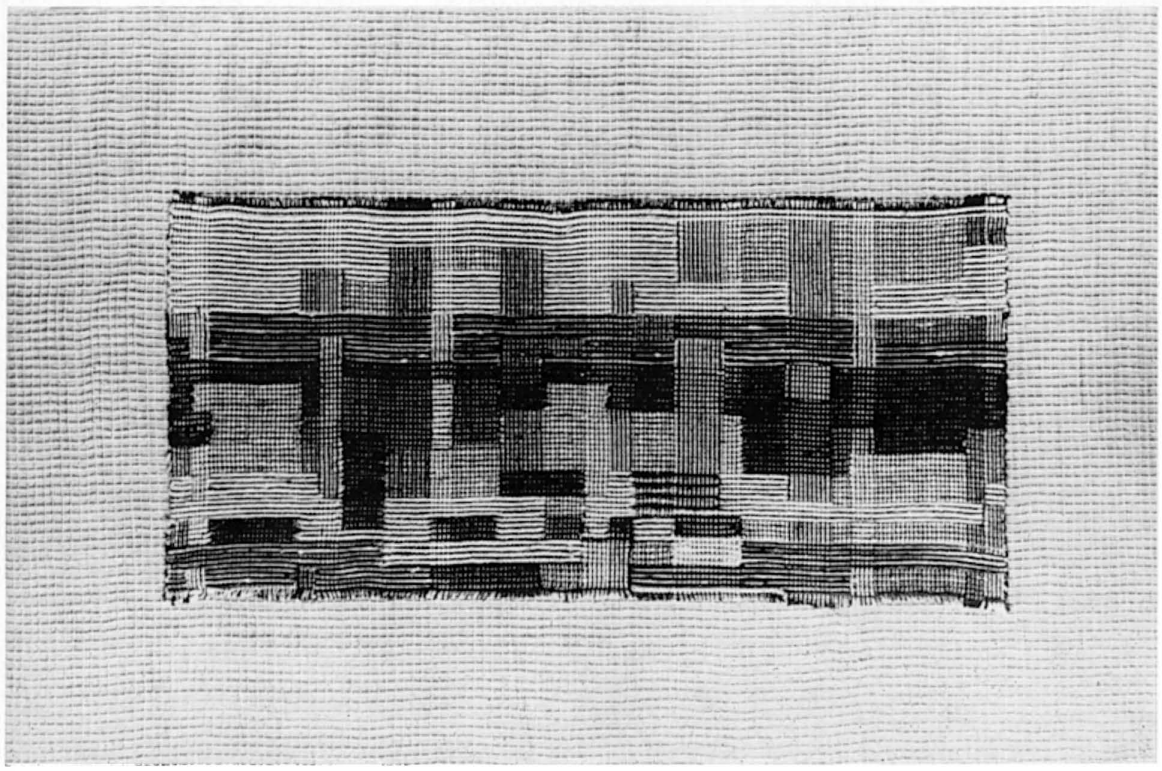
The natural slope of the site, northwest to southeast, permits the logical location of the reactor below grade at the campus pedestrian approach, and level with trucking and service, thus surrounding the project by adjunct spaces. Those directly related to its research function open into the reactor room, while others, shops, offices, and graduate classroom, are grouped outside the control area in order to receive natural light and view. Sliding glass doors permit direct view and access to the control room from the classroom for lecture-demonstrations.

The building structure is entirely of reinforced concrete. Non-bearing partitions are expanded shale block. The principal room is spanned by four-foot wide precast concrete channel slabs resting on ten-inch thick poured beam-walls which also support the steel beam-rails of a traveling five-ton crane. The sloping beam-walls are supported and braced by a heavy haunch beam running perpendicular to them.

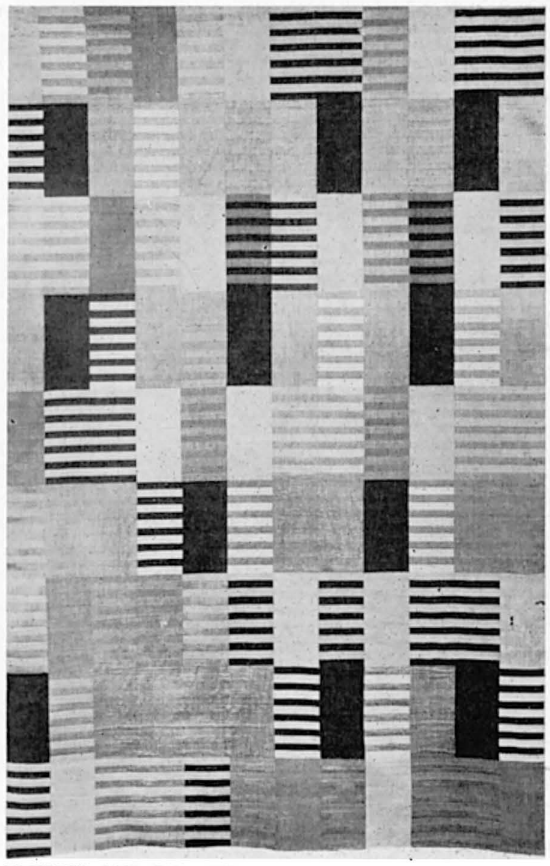
TECHNICAL BUILDING BY THE ARCHITECT ARTIST GROUP



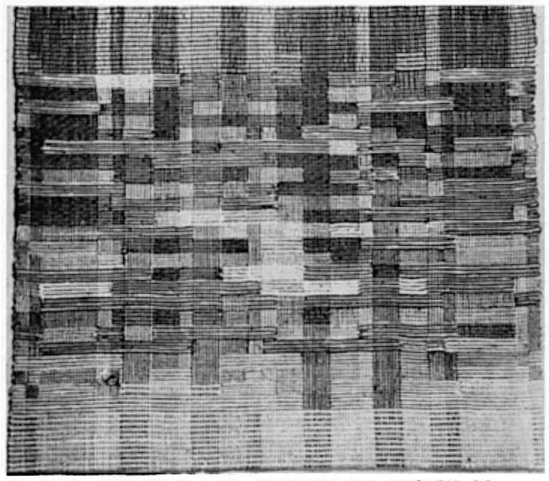
PICTORIAL WEAVINGS: ANNI ALBERS



"CITY," LINEN AND COTTON; 19" x 28"



TAPESTRY, 1927; 72" x 48"

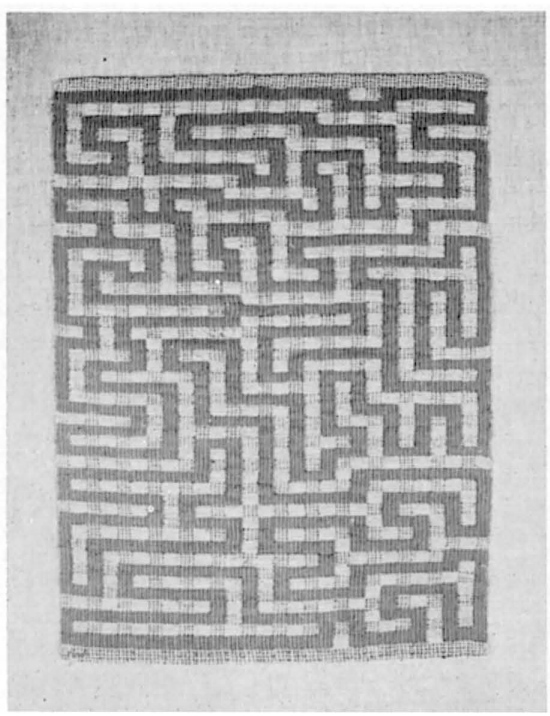


TAPESTRY, SEPTEMBER 1948; COURTESY THE MUSUEM OF MODERN ART

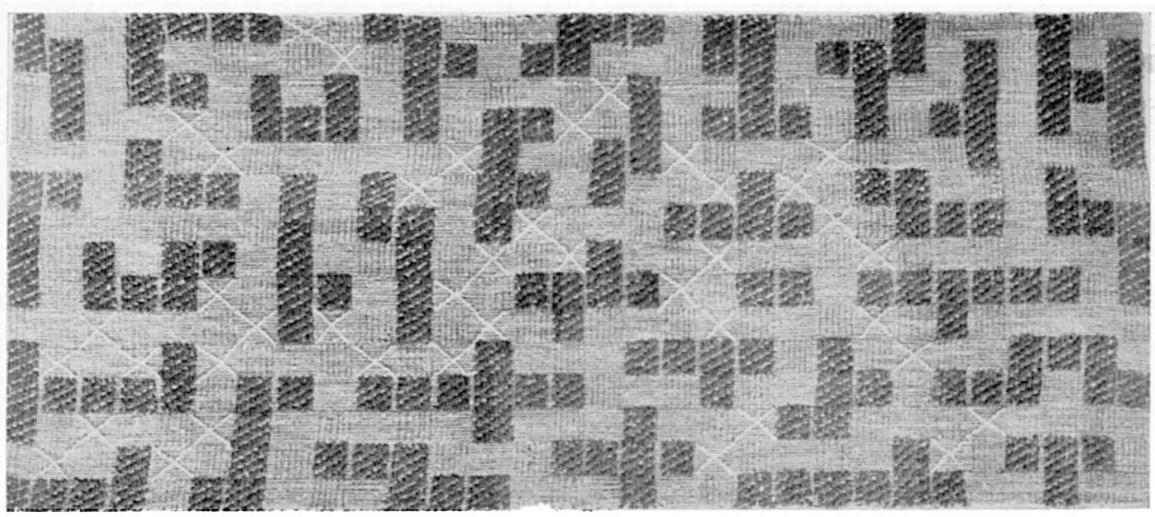
"Handweaving today deals mostly with decorative fabrics. What I am trying to do is to keep fabrics intended for practical use as useful as possible. I try not to obscure their usefulness by emphasizing decorative elements, that is, I try to keep them as anonymous as possible. My concern with formal elements of composition I try to use in concentrated form in my woven pictures which are useless, of course, in any practical sense." In her "useful" textiles, designed to be produced on machine looms, Mrs. Albers has experimented with a number of newly developed fibers, among them Fiberglas. When she emphasizes the *anonymous* aspects of her useful fabrics she also implies a desire for a *timeless* one, as opposed to an interest in latest fashion which invariably is soon replaced by another fashion. This phase of her work is mainly related to an architectural environment. And in this context she quoted Paul Klee discussing some weaving done at the Bauhaus: "After all, textiles are serving objects." And Mrs. Albers added "he meant to give us a warning not to make fabrics that are too independent but to make fabrics that assume their proper place in the surroundings."

Anni Albers' work in weaving which transforms her material, various strands of colored threads, into a formal visual experience, resembles painting in many ways: the choice of the palette, the structure, texture, and the invented surface tension within the formal concept, in order to construct a spatial environment in terms of the medium. This medium demands a high level of organization to form an ordered pictorial vision while being unable to view the entire work in progress. She employs what is generally not considered a "fine art" medium, but a craft medium, to produce pictorial art.

—BERNARD CHAET



"RED MEANDER," 1954; 27" x 21"



"PICTOGRAPHIC," 1953; 38" x 50"

FANTASY IN STEEL, CONCRETE, AND BROKEN BOTTLES

JULES LANGSNER

"A man has to be good good or bad bad to be remembered," an Italian tile setter by the name of Simon Rodia once told this writer. The lone builder of three astonishing steel and concrete towers soaring above the industrial section of Watts on the outskirts of Los Angeles, Simon, or Sam, as he prefers to be called, stands an excellent chance of being remembered.

The towers, as fanciful as an Arabian Night's tale, stand 104, 100, and 80 feet high within a narrow triangular enclosure. At first glance, from a couple of hundred yards away, the coiling, open-frame towers, rising to delicate pinnacles, suggest the golden *stupas* of Siam. As one approaches closer, the spider-web interlacements with which Simon Rodia constructed this fantasy in steel and concrete are discernible.

Arriving at the site, particularly on a sunny day, the towers shimmer with iridescent color. Encrusted in the cement are thousands upon thousands of fragmented bottles, broken dishes, bits and pieces of luminous objects, combining to produce an effect of Oriental splendor. On entering the enclosure, one discovers a series of loggias, fountain-like structures, meandering pathways, free-standing sculptural forms, imbedded in the surface, wherever one turns, improvised designs, endlessly varied, composed of the refuse of a civilization.

Nothing too commonplace, too mundane, too graceless for Simon Rodia. Here are incised patterns made with jelly molds, sea-shells, kitchen utensils, tools, machinery, corn cobs, odds and ends of every conceivable kind. A *tour de force* of ready-mades to gladden the heart of Marcel Duchamp. Indeed, the Watts Towers constitute a remarkable instance of Surreal folk art, their closest equivalent the Dream Palace built of colored stones by the French postman, Ferdinand Cheval.

Both Cheval and Simon Rodia were men of humble origins, without sophistication in the arts, without historic models to inhibit the play of their imaginative fancies. Both were obsessed with the need to create visible monuments to survive their mortal selves. In talking with me Simon Rodia expressed the longing to be remembered. He spoke admiringly of the heroes he read about in his 1911 edition of the Encyclopedia Brittanica: Alexander the Great, Julius Caesar, Joan of Arc, Amerigo Vespucci, and Buffalo Bill. After completing his Dream Palace, Ferdinand Cheval spent eight years building a fantastic tomb for his burial.

Curiously, both Cheval and Rodia spent 33 years of unremitting labor on the construction of their masterworks. Cheval gathered his colored stones on his daily rounds, carrying them in his post bag. Rodia, gunny sack in hand, roamed the neighboring junk yards, or went by trolley to the beach to gather sea shells. Both were inspirited and sustained by a vision, a vision to which they devoted their lives, and which made them, in the eyes of their neighbors, the butt of ridicule. Simon Rodia once remarked, "Some of the people think I was crazy and some people said I was going to do something."

Single-handed, without assistance of any kind, without consultation, Simon Rodia proceeded "to do something." Without consultation—that turned out to be the fly-in-the-ointment. The Towers do not conform to the building regulations of the city of Los Angeles. Along about 1948 the Towers came to the attention of the inspectors of the Building and Safety Department of the city. Clearly these were not buildings, nevertheless the inspectors were impelled to regulate them.

By 1948 the three Towers were essentially completed, construction having started in 1921. Simon Rodia blithely ignored the inspectors on their visits, waving them aside as he swung aloft, bucket in hand, climbing the Towers with the agility of a jungle cat. Riled by this sanguine disregard of their authority, the officials bided their time, inspecting the Towers with spyglasses to determine their "safety" at the higher reaches.

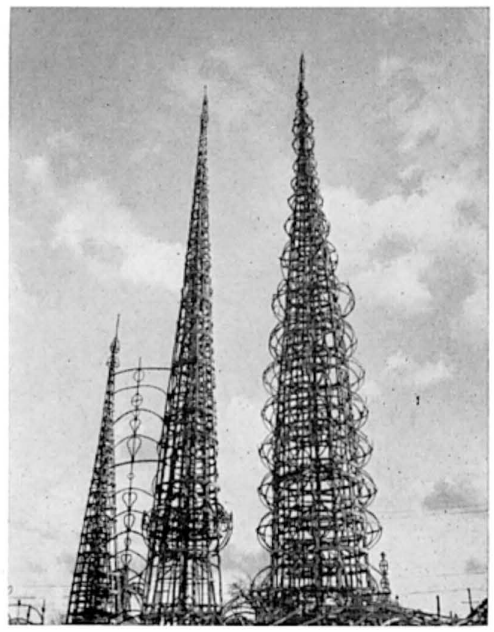
In 1959 condemnation procedings were initiated. The Towers were declared a menace to life and limb. By this time Simon Rodia had disappeared from the scene. Having finished his work, he put a lock on the gate, and left to visit relatives. Now a resident of Martinez, California, in his eightieth year, he refuses to participate in the battle to preserve his work. He has always shied away from public appearances, on one occasion fleeing a television studio as he was about to go on the air.

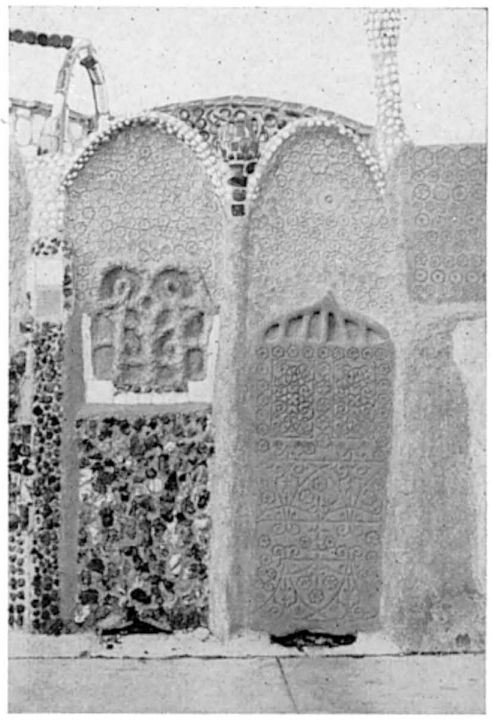
The Towers have come into the possession of two youthful admirers hopeful of preserving them as masterworks of folk art. The condemnation action has been directed against the present owners supported by a community-wide committee of artists, critics, museum directors, and art lovers. Protracted hearings have been held. Under cross-examination it was discovered none of the city inspectors had training as metalurgists and their background in structural engineering was negligible at best. The substance of their evidence was based on conjecture rather than precise structural analysis—steel reinforcement was rusted here, cement was cracked some place else, never mind the fact the Towers have survived earthquakes and wind storms of hurricane velocity.

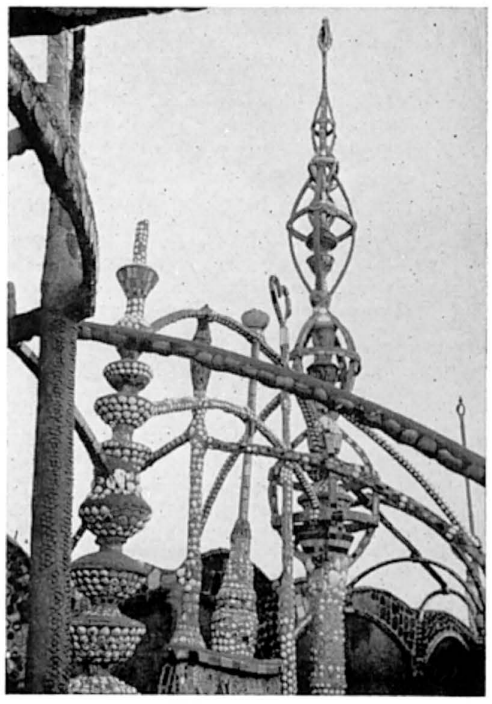
At this writing, the future of the Towers is uncertain. Both the city and the owners have agreed to submit the structures to independent testing by scientists and engineers. Cables from a hydraulic cylinder are to be attached to some 60 members and submitted to a maximum pull of 10,000 pounds, equivalent to 15 pounds per square foot. Stress curves are to be plotted as the pull is increased, the maximum pull to last five minutes. If the Towers survive, they presumably are to be allowed to stand.

This may appear to be an equitable solution, but in the view of the writer a dangerous precedent has been set. The Towers are works of art.

(Continued on page 28)







PHOTOGRAPHS BY BOB WILLOUGHBY

PRODUCTS merit specified

For the three new Case Study Houses

Designed by Killingsworth, Brady and Smith, architects

The following are specifications developed by the architects for the three new Case Study Houses and represent a selection of products, on the basis of quality and general usefulness, that have been chosen as being best suited to the purposes of the project and are, within the meaning of the Case Study House Program, "Merit Specified." As the houses progress, other specifications will be noted.

WEST COAST LUMBERMEN'S ASSOCIATION

Framing for the three houses will be Douglas fir. This conventional method is used because of its economy and flexibility. Vertical members are 2x4 and 16" O.C. Horizontal combination rafter and ceiling joists are 2 x 10 at 16" O.C.

GLADDING McBEAN & COMPANY

Permanence and quality were prerequisites in the tile work. For this reason, the floors in the baths and the wall above the sunken tub will feature Gladding McBean tile, in House "A."

ARCADIA METAL PRODUCTS

Sliding doors are used throughout the three houses to provide indoor, outdoor living. These units were selected for their "machine like" precision and trouble free operation. The doors are 10'-0" in height and varying width, and feature the inside screen.

DOUGLAS FIR PLYWOOD ASSOCIATION

The beams on the exposed framing will be glue laminate. These have been selected so that finer detailing and long spans may be used without the problems of checking and twisting.

Texture 1-11 is used for exterior finish on House "B." This handsome, easily applied material was selected for its delicate, well defined texture, which compliments the simple proportions of the building.

CHALLENGER LOCKS

Challenger Locks will be used on the project. They have been selected because of their excellent design and simplicity of operation. The precision of engineering and unobtrusive forms make them particularly suitable for quality installation.

POMONA TILE MANUFACTURING COMPANY

The selection from Pomona Tile to be used in House "C" will be made from a wide variety of colors, surfaces, sizes and shapes. The product's durability and maintenance qualifications make it ideal for extensive use in kitchen and bathroom installations.

PALOS VERDES STONE

In House "C" Palos Verdes Stone is featured in a floor to ceiling panel at the fireplace face. To further accent the unusual character of the stone it will be recessed 2" behind the plane of the hardwood panels on either side.

THERMADOR ELECTRICAL MANUFACTURING COMPANY

Built-in kitchen appliances will be by Thermador. These appliances offer an exceptional selection of models, combined with fine high styling which will complement the walnut kitchen cabinets.

CALIFORNIA REDWOOD ASSOCIATION

Redwood was mandatory for House "A." The intimate courtyards and gardens will be greatly enhanced by the beauty and warm texture of the redwood. The vertical boarding will provide a fine foil for the simple planting of bougainvillea, bignonia violacia and other planting associated with the La Jolla area.

TRADE-WIND FANS

Exhaust fans throughout the houses will be by Trade-Wind. These have been selected for their handsome, unobstrusive appearance, as well as their trouble-free operation.

THE MOSAIC TILE COMPANY

Mosaic Tile has been selected for House "B." This fine, warm textured material is used crossing the reflecting pool, through the entry hall, the loggia, and extending into two small intimate courtyards.

FANTASY—JULES LANGSNER

(Continued from page 27)

No consideration was given by the city to the thought of preserving an artistic heritage. Instead of the city concerning itself with how to maintain the Towers, the officials have directed their efforts toward their destruction. An esthetic creation, by its very nature, is not likely to conform to the regulations of a building code designed for habitations. But the Towers are not habitable and the only weight they support is their own diminishing skeleton as they rise to the sky. Whatever the outcome of the tests, it is to be hoped the present owners will insist on the preservation of the Towers, by court action if necessary. Meanwhile it is incumbent on the city of Los Angeles to initiate measures to maintain its artistic treasures for future generations, and put an end to vandalism by bureaucracy.

HOUSE—A. QUINCY JONES AND FREDERICK E. EMMONS

(Continued from page 21)

The kitchen is located to provide dining experiences of four different kinds, the informal family and children dining in the multipurpose room, the more formal dining in the dining space at the end of the living room, the protected outdoor dining in the entry garden and dining in the rear yard. The various family living spaces, both inside and out, can be opened to each other to give the maximum variety in living experiences.

OPEN DOOR IN MOSCOW

(Continued from page 11)

American life. This complicated assignment—to give physical expression to these ideas—involved the use of many techniques, including films, photographs; structural design that would enable vast amounts of products to be seen from many angles; the actual choice and display of similar items to simplify and make credible an image; people to be present wherever possible to demonstrate a camera, sewing machine, washing machine, or complex television equipment, anything that can be shown to create the picture as it is known somewhere in the United States. The premise is that the typical or average, in terms of this broad scope, cannot be assessed logically.

In working out problems of coordination with industry and government necessary in a full-scale international exhibition—and this is in addition to coping with nightmarish construction delays (there was a seven-week delay in Moscow)—the designer's image shifts from innovator to diplomat and trouble-shooter until the job is completed or the critics have finished writing their pronouncements.

ARLENE HANNES

MUSIC

(Continued from page 7)

Krenek, like Hindemith, has been a formalistic master, but Krenek has carried his formalistic conceptions beyond the scope of music. I believe that in any art the native experience, the idiomatic tradition which is natural and native to the individual must come first; it must be received, it cannot be imposed. The formalistic, however imposing of itself, cannot take precedence, cannot direct the art to live. It may be for this reason that Krenek's sensational first opera, the so-called jazz opera *Jonny Spielt Auf,* survives as one of the historical artifacts of the European discovery of jazz, while Kurt Weill's musically less pretentious shows, *The Threepenny Opera* and *The Rise and Fall of the City of Mahagonny,* which do not borrow jazz but fully involve themselves with it, still hold the stage. They do not exist to display jazz, but jazz is the medium of their dramatic purpose.

There is a great temptation to formalism, to inventing rationalizations which will determine consequences. How many august French composers so lately admired, who are now merely historical, pursued

(Continued on page 30)

MUSIC

(Continued from page 28)

a formalism derived from Wagner and tried to impose these heavy borrowed formalities upon the tradition that runs so freely French from Couperin through Berlioz and Debussy, that tradition of clarity, that Impressionism, the eye within the ear.

Krenek has recorded *Sestina (Columbia Epic)* with the assistance of the Fromm Foundation, that wholly admirable one-man organization that works and spends for the benefit of contemporary music. On the other side of the record is the *Lamentations,* sung with utmost beauty by the choir of the Dresden Choir School. The recorded *Sestina,* a thoroughly adequate performance, holds the ear in direct inversion to the thickness of the texture. The best of it is a fascinating study in pitched sonorities, something between the spot-and-line draftsmanship of Klee and the ping-like photographic plates of experiments with bouncing neutrons. This aspect of the composition lies in the direction of Krenek's present experimental work in electronic music, which indeed appears to be the ultimate outcome of all work by this group. The linear directions of these bouncing, pinging, astonishingly receding, unexpectedly projecting sound units open new musical dimensions. They serve in many ways as a substitute for rhythm, simulating freedom as a bouncing ball does, which has in fact no freedom at all, over a relatively inflexible beat. "Free" composers, fascinated by the complexities of their notation, are often unaware of the set graphs of emphasis across which they plot their outlines.

Sestina is a composition to know and argue with. Of the *Lamentations* I can write with less equivocation. The beautiful singing carries the composition, which itself does not move—or rather, it moves less and less as the composition grows more turgid. Krenek has converted the tone-row to his use in such a way that one hears through his writing, like an echo, the great polyphonic tradition of an earlier period. Here, as in the *Sestina,* the originality, and there is much originality, molds but does not direct; the ideas remain outside. Yet I repeat, what one does not receive immediately with pleasure is not necessarily wrong. The present trend towards formalism, though it may seem to me a static impasse without future, unless that be in electronic sound, has many gifted adherents. They may be right.

A number of years ago a meditative American invented what is called after him the "Ames" room, an asymmetrical structure of walls and windows, which when photographed or looked into at an adjusted angle conveys the impression of a room in normal perspective. When a person enters the room at one side he seems child-size; as he crosses the room he "grows" until he is his proper size; when he reaches the other side he has become a coarse-limbed, bony-featured giant. The onlooker's adjusted acceptance of the normality of the room deceives him about the reasonable fact, the normality of the person. In this way most of us receive our first impression of any genuinely new creative method or vision in art. The most normal part of the prospect, the new way or method, appears distorted, puny or giant-size, in comparison with what we accept to be the normal surroundings. In the small scale the little features take on the roundness of a child or a midget, as we expect them to look. In the large scale the jaw juts, the frame seems bony and angular. Yet, it is the same man moving without change from the one condition to the other within a single scene of vision.

As Bertrand Russell reminds us *(Mind and Matter):* " . . . there must be two sorts of space, one the sort of space which is known through experience, especially in my visual field, the other the sort of space that occurs in physics, which is known only by inference and is bound up with causal laws. Failure to distinguish these two kinds of space is a source of much confusion." Substitute for "space" the word "method," meaning the method used by an artist, if he has one—and if he hasn't, at least unconsciously, he isn't much of an artist—and we can understand simply enough the sort of esthetic traps our esthetic rationalizations are always falling into. I can only object that, for myself, I don't believe one can deliberately alter the method and invite the art to catch up with it; that seems to me rationalizing before the event. But what I believe depends a great deal on what I expect when I look into the odd-shaped room of my experience.

Recent investigation has shown also that when the onlooker sees in the room a person towards whom he has a close, not fully adjusted emotional relationship, his vision will adjust to the person, seeing him the right shape and becoming aware of the surrounding distortion. This may explain the acceptance of certain oddly shaped creative personalities in a world that in their presence shows itself misshapen; a good example would be D. H. Lawrence. Such is undoubtedly one aspect of genius. The other is the creative genius whose presence reveals and reaffirms the world we know, illuminating what in it may be tragic but is not misshapen.

I have heard only one performance of Stravinsky's *Threni,* by the orchestra of the University of California at Los Angeles and the Gregg Smith singers, directed by Lukas Foss, with soloists the principal of whom had sung the work several times during the past year, under the direction of Stravinsky and of Robert Craft, in Europe and New York.

The Foss performance has been extensively criticized, perhaps with justice, but I was so swept by the music that I cannot be sure how much of what I believe I may have heard came directly and how much from my awareness of what this music must sound like when adequately performed. Even sounded on piano the vertical relationships entrance the ear.

Threni is another setting of the Lamentations of Jeremiah, liturgically a part of the Tenebrae services of the Catholic Church during Holy Week. Each section includes a sequence of verses, introduced by a letter of the Hebrew alphabet which is sung as part of the text.

Threni opens, like Stravinsky's *Canticum Sacrum,* with a declamatory *Incipit:* "Here begin the Lamentations of the Prophet Jeremiah." The body of the work consists of three Elegies, the First, the Third, and the Fifth. The whole work is in three parts, and the middle section, the Third Elegy, is also in three parts, a tripartite movement within a three-movement work, resembling the third of the five sections of the *Canticum.*

The First Elegy begins with a *parlando sotto voce* statement by the choir: "How doth the city sit solitary that was full of people!" Throughout the section the dry choral style is maintained, interrupted by bugle and solo voices uttering the causes of the city's sorrow. The dry utterance of defeat in the choir ends in the tenor solo: "Behold,

O Lord, for I am in distress . . . " The effect of the entire First Elegy is dusty and withdrawn, statement of a condition past despair.

The Third Elegy begins in a great bass solo, *Quaerimonia (Complaint),* with interjections by the choir marking the successive letters of the verses. The tenor joins, then the second bass, then second tenor, a crescendo of despair impelled only by the elaboration of parts, until finally the women's voices enter, no more than the heightening of register giving the effect of a great cry: "*Misericordiae Domini (It is of the Lord's mercies that we are not consumed),* to introduce the *Sensus Spei (Perceiving of Hope).* And the high solo voices of the women drive forward the feeling of crescendo which does not cease until the bass solo reenters alone: "Thou drewest near in the day that I called upon thee: (falsetto) thou saidst": and the choir joyfully answers: "*Ne timeas (Fear not).*" Then follows the *Solacium (Compensation).* And I must confess that for me the Solace or Compensation offered seems the least satisfactory part, for it is in the spirit of the Old Testament, a complaint of being wronged, followed by a demand for vengeance.

After the tripartite Third Elegy *(Quaerimonia, Sensus Spei, Solacium),* the work ends with the Fifth Elegy, the *Prayer of the Prophet Jeremiah.* Except the *Quaerimonia,* Stravinsky has composed no greater music than the withdrawn, tense, inward setting of this prayer. The entire work is not consolatory, as is now expected of the churches, but tragic and purgative.

Although Stravinsky once gave me to understand in a letter—before we were better acquainted—that his works are all of equal merit, I have never believed this, and I am sure that if he believed it he would long since have given up composing. In the same way I am sure that if he had ever let himself believe that the majority of the compositions of his long middle period were less than those of his youth, up to, say, *Noces,* he would have perished as a composer of the loss of nerve which has destroyed many of his gifted contemporaries. As I see it, the *Symphony in Three Movements* represents a crisis, a determination to involve himself once more with utterly serious matters. Victory came with the achievement of *Orpheus* and the Mass. When I wrote him to that effect, though perhaps less bluntly, I received in reply the very brief letter I have mentioned.

Since then my once reluctant admiration has increased to wonder. At an age when the majority of intelligent men become more and more fixed in their prejudices, Stravinsky accepted and took over the principle of composition that stood in popular awareness as the chief distinction, though in fact it is not, of his chief rival before posterity, Arnold Schoenberg, ending a dichotomy so unyielding that the two composers had lived together in the same city twenty years without communication. To have done this with some type of the doubletalk practised at first by his critical admirers in their consternation would have been easy enough. Stravinsky did not do so. Death had prevented any personal reconciliation, and Stravinsky indulged in no false sentimental gestures. The best record of his acceptance and the exact line of his personal and creative reservations, as well as the distinction between the influences of Schoenberg and of Webern, have been recorded by his subsequent music. Instead of subordinating himself to the "principle" and using it to rationalize the esthetic outcome, Stravinsky adapted it to himself. With this lever he has reconquered the musical world, while increasing his mastery to such a pitch that to compare the Cantata, which first showed the influence of these new ideas, with the *Canticum Sacrum* and *Agon,* and these in turn with *Threni,* is to draw a line straight upwards.

"What are the influences on the *Threni* then, since the main critical point about any new work of Stravinsky's seems to be to identify the 'influences'?" Robert Craft asks in his notes. He himself lists several: Krenek's *Lamentations;* the quartet in Gesualdo's *Aestimatus sum,* that sombre, despairing lament for Holy Thursday of Passion Week; Stravinsky's own *Renard, Noces, Orpheus.* Craft discusses also some cross-references between *Threni* and its liturgical predecessor, the *Canticum Sacrum.*

As a sounding whole, a one-piece conception, which it is for all its three movements, *Threni* could not have existed without the ballet *Agon,* or the Mass, which forms with *Orpheus* the double-pillared gateway to Stravinsky's "late works." As an act of the spirit I believe that *Threni* proceeds out of a deeper revaluation of the elegiac process in his *Symphonies for Wind Instruments,* that precious and dedicated act of his earlier creative lifetime, the recension of which during the later 1940's seems to have opened the way at last to that direction from which during the long middle period he had seemed a little to draw back. As with Beethoven, the display work of the middle period replaced the inward drama, towards which, at the end, a long creative evolution will recur.

How superficial Beethoven's *Apassionata* compared with the fire that breaks upon the long-sustained fugal withholding of the A flat Sonata, opus 110! Technically also, and in the horizontal and melodic emphasis, and in the making of a unitary work with a title suggesting multiples, as if not so much the movements but the moods and purposes must be gone through again and again—the very epitome of what is tragic—Stravinsky asserts his conviction of ordonnance against the abstract music-drama of expressionism. It is as though, beginning with the Monteverdi *Vespers,* a loose succession of distinct movements dramatically tightened by solo voices accumulating towards the climactic septet, Stravinsky has drawn the entire process together into a relationship as taut and conclusive as that of Beethoven's Quartet in C sharp minor.

More than any other of his works, Stravinsky's *Threni* suggests influences, buttresses of sure foundation upon every stratum of European music, from the hokketing of Machaut to the repeated-note ostinati of the tone-row; and more than any other it is indestructibly work of his own mind, the most absolute voice of that withdrawn sorrowing which darkens all his sacred music.

Most assuredly this tone-row is not expressionistic. That drama at the heart of even the most absolute Germanic music has here been kept out. Where Schoenberg expresses, Stravinsky states. Where Schoenberg's melodies reach through wide intervals, squeezing the experience by the force of their contractions, Stravinsky's lines move simply, across broad horizontals, cumulative and reserved, so that each forceful springing of a voice breaks from the long tension of the line, marking the emphases of thought. In *Moses and Aron* Schoenberg's tone-row expresses itself unrecognized but potent in every convolution of the melody; in *Threni* the concealed tone-row lies almost static, with the elasticity of a steel rail. In each, the row does not govern the composition; the composer governs the row.

CURRENTLY AVAILABLE PRODUCT LITERATURE AND INFORMATION

Editor's Note: This is a classified review of currently available manufacturers' literature and product information. To obtain a copy of any piece of literature or information regarding any product, list the number which precedes it on the coupon which appears below, giving your name, address, and occupation. Return the coupon to Arts & Architecture and your requests will be filled as rapidly as possible. Items preceded by a check (✔) indicate products which have been merit specified for the Case Study Houses 18, 20, 21, The Triad.

New This Month

(348a) New Technical Bulletin on Protective Coatings Offered: A new 8-page Technical Bulletin on "Protective Coatings for Exterior Surfaces of Concrete Block Walls" is now available free of charge to qualified building professionals. Prepared at the direction of Quality Block Producers, an association of leading concrete block manufacturers in Southern California, the Bulletin is the first of its type offered. Actual research, editing and writing was performed by Raymond S. Wright, AIA, & Associates, and the Paint & Coating Committee of the Construction Specifications Institute. No brand names are mentioned and recommendations for various coatings are notably unbiased and objective. The last page, Brief Specification Data, is perforated for easy removal and extra copies may be obtained without charge. Copies of this Technical Bulletin have already been mailed to a select list of building professionals. Readers not included in this mailing, or those desiring an extra copy, may obtain one by telephoning or writing: Quality Block Producers, Attn: Mr. Peter Vogel, 856 So. Hoover Street, Los Angeles 5, California. DU 8-0251.

✔(349a) Available from the West Coast Lumbermen's Association is an excellent 44-page catalog entitled: "Douglas Fir Lumber — Grades and Uses." This well illustrated catalog includes detailed descriptions of boards, finish, joists and panels, and light framing with several full-page examples of each; conversion tables, stresses, weights, properties of Douglas fir. For a copy write to: West Coast Lumbermen's Association, 1410 S.W. Morrison Street, Portland 5, Oregon.

✔(350a) Appliances: Thermador presents two new brochures. The 14.2 cubic-foot Refrigerator-Freezer is featured in one brochure. All sections of the interior are explained in full; choice of colors and detailed specifications are given. The second brochure colorfully illustrates Thermador's Bilt-In Electric Ranges. The special features of the Bilt-In Electric Ovens, such as the Air-Cooled door, 2-speed rotisserie, scientifically designed aluminum Broiler tray, are shown. The Thermador "Masterpiece" Bilt-In Electric Cooking Tops are detailed. For these attractive brochures write to: Thermador Electrical Manufacturing Company, 5119 District Boulevard, Los Angeles 22, California.

APPLIANCES

✔(316a) Automatic Dishwashers: Waste King Super Dishwasher-Dryers with complete flexibility in the selection front panels. Any color, any metal finish, any wood panel may be used to match other kitchen colors or cabinets. Seven major benefits and ten exclusive features including humidity-free drying which keeps all hot, steamy air inside the tub. Complete information and specifications available on request. Waste King Corporation, 3300 East 50th Street, Los Angeles 58, California, LUdlow 3-6161.

ARCHITECTURAL POTTERY

✔ (303a) Architectural Pottery: Information, brochures, scale drawings of more than 50 models of large-scale planting pottery, sand urns, garden lights, and sculpture for indoor and outdoor use. Received numerous Good Design Awards. In permanent display at Museum of Modern Art. Winner of 1956 Trail Blazer Award by National Home Fashions League. Has been specified by leading architects for commercial and residential projects. Groupings of models create indoor gardens. Pottery in patios creates movable planted areas. Totem sculptures available to any desired height. Able to do some custom work. Architectural Pottery, P. O. Box 24664 Village Station, Los Angeles 24, California.

ARCHITECTURAL WOODWORK

(295a) Manufacturers of architectural woodwork, specializing in all types of fixtures for stores, offices, churches and banks. Large and complete shop facilities offer a complete range of work from small specialty shops to complete departments in large stores. Experienced staff to discuss technical or structural problems, and to render information. Laurel Line Products, 1864 West Washington Boulevard, Los Angeles 7, California.

DECORATIVE ACCESSORIES

(426) Contemporary Clocks and Accessories. Attractive folder Chronopak contemporary clocks, crisp, simple, unusual models; modern fireplace accessories; lastex wire lamps, and bubble lamps, George Nelson, designer. Brochure available. One of the finest sources of information, worth study and file space.—Howard Miller Clock Company, Zeeland, Michigan.

(337a) Contemporary Serving Accessories: A running catalog on a comprehensive collection of dinnerware and serving components which can be combined in unlimited ways. Excellent for designers in working with clients. A continuing creative program within a nucleus of basic vessels in porcelain, ironstone, rockingham, earthenware, etc. Design directed by La Gardo Tackett, Imported by Schmid International, Distributed by Richards Morgenthau, 225 Fifth Avenue, New York, New York.

DOORS AND WINDOWS

✔ (244a) Sliding Doors & Windows: The full product line of Arcadia Metal Products entails a standard aluminum door used for residential purposes, heavy duty aluminum door for commercial work and finer homes, standard steel door for commercial and residential buildings and the standard aluminum window designed for architecturally planned commercial buildings and residences. For a 16-page informative catalog write to: Arcadia Metal Products, Dept. AA, 801 S. Acacia Avenue, Fullerton, California.

✔ (327a) Sliding Doors & Windows: The product line of Bellevue Metal Products consists of steel and aluminum sliding doors and a steel sliding window used for both residential and commercial purposes. Designed and engineered for easier installation and trouble-free service. Units feature live wool pile weatherstrip for snug anti-rattle fit; bottom rollers with height adjustors at front and back; cast bronze or aluminum hardware and custom designed lock. Doors can always be locked securely and have safety bolt to prevent accidental lockout. Catalog and price list available on request by writing to Bellevue Metal Products, 1314 East First Street, Los Angeles, California.

FABRICS

✔(307a) Fabrics: Anton Maix Fabrics for architecture. Outstanding collection of printed designs by finest contemporary designers. Unique casement cloths for institutional requirements. Coordinated upholstery fabrics. Plastics & synthetics. Special finishes. Transportation materials. Custom designs. Nat'l sales office—162 E. 59th St., N. Y. 22, N. Y. Showrooms in Los Angeles, San Francisco & New York. Write for illustrated brochure and coordinated swatches: L. Anton Maix, 162 East 59th Street, New York 22, New York.

(171a) Contemporary Fabrics: Information on one of the best lines of contemporary fabrics by pioneer designer, Angelo Testa. Includes hand prints on cottons and sheers, woven design and correlated woven solids. Custom printing offers special colors and individual fabrics. Large and small scaled patterns plus a large variety of desirable textures furnish the sonably priced. Angelo Testa & Company, 49 East Ontario Street, Chicago 11, Illinois.

FURNITURE

(270a) Furniture (wholesale only): Send for new brochure on furniture and lamp designs by such artists as Finn Juhl, Karl Ekselius, Jacob Kajaer, Ib Kofod-Larsen, Eske Kristensen, Pontoppidan. Five dining tables are shown as well as many Finn Juhl designs, all made in Scandinavian workshops. Write Frederik Lunning, Inc., Distributor for Georg Jensen, Inc., 315 Pacific Avenue, San Francisco 11, California.

(180a) Furniture: A complete line of imported upholstered furniture and related tables, warehoused in San Francisco and New York for immediate delivery; handicrafted quality furniture moderately priced; ideally suited for residential or commercial use; write for catalog. — The Dux Company, 390 Ninth Street, San Francisco 2, California.

(347a) A new abridged 24-page catalog, containing 95 photos with descriptions of dimensions and woods, is offered by John Stuart Inc. Showing furniture produced from original designs by distinguished international designers, it is a storehouse of inspirations. 50c John Stuart Inc. Dept. DS, Fourth Avenue at 32nd Street, New York 16, N. Y.

(138a) Contemporary Furniture: Open showroom to the trade, featuring such lines as Herman Miller, Knoll, Dux, House of Italian Handicrafts and John Stuart. Representatives for Howard Miller, Glenn of California, Kasparians, Pacific Furniture, String Design (manufacturers of shelves and tables), Swedish Modern, Woolf, Lam Workshops and Vista. Also, complete line of excellent contemporary fabrics, including Angelo Testa, Schiffer, Elenhank Designers, California Woven Fabrics, Robert Sailors Fabrics, Theodore Merowitz, Florida Workshops and other lines of decorative and upholstery fabrics. These lines will be of particular interest to architects, decorators and designers. Inquiries welcomed. Carroll Sagar & Associates, 8833 Beverly Boulevard, Los Angeles 48, California.

✔(437) Furniture: Information best lines contemporary furniture, accessories, fabrics; chairs, tables in string and strap upholstering; wood or metal chair frames—Knoll Associates, Inc., 575 Madison Ave., New York 22, N. Y.

✔(342a) Contemporary Furniture. Residential and office. Designed by Roger Kennedy, Gerald McCabe and Simon Steiner. Collection includes tables, desks, bedroom furniture, seating, high fidelity cabinets. Contract department. SM Furniture Company, Incorporated, 1812 Colorado Avenue, Santa Monica, California.

(330a) Furniture: Herman Miller, Knoll and Moduform contemporary furniture for executive and general office areas in steel—all steel equipment (A S E) showroom and display facilities available to architects and their clients. Write to The Hart-Cobb-Carley Company, 2439 South Yates Avenue, Los Angeles 22, California.

(323) Furniture, Custom and Standard: Information one of best known lines contemporary metal (indoor-outdoor) and wood (upholstered) furniture; designed by Hendrick Van Keppel, and Taylor Green—Van Keppel-Green, Inc., 116 South Lasky Drive, Beverly Hills, California.

(338a) Brown - Saltman / California, Brochures illustrating all elements and groupings of VARIATIONS modular furniture for living-room, dining room, bedroom. Please send 15¢ to: Brown-Saltman, 2570 Tweedy Boulevard, South Gate, California.

● Contemporary Furniture; Catalog available on a leading line of fine furniture featuring designs by MacDougall and Stewart, Paul Tuttle, Henry Webber, George Simon, George Kasparian. Wholesale showrooms: Carroll Sagar & Associates, 8833 Beverly Boulevard, Los Angeles 48; Bacon & Perry, 170 Decorative Center, Dallas, Texas; Kenneth Donathin, 4020 North 34th Street, Phoenix, Ariz.; Contract Interiors, 333 West Colfax, Denver, Colo. Sales representative: Casa Goldtree Liebes & Cia., San Salvador, El Salvador, C. A. Experienced contract department at Kasparians, 7772 Santa Monica Boulevard, Los Angeles 46, California. For further information write on your letterhead directly to the above address.

(345a) Office Furniture: New 80-page Dunbar office furniture catalog; fully illustrated in black and white and four colors; complete line designed by Edward Wormley; collection includes executive desks, storage units, conference tables, desks and conference chairs, upholstered seating, occasional tables and chests, and a specially screened series of coordinated lighting and accessories; meticulous detailing, thorough functional flexibility. For free copy write to Dunbar Furniture Corporation of Indiana, Berne, Indiana.

(321a) Furniture: Laverne Furniture, test-proven by leading architects and business organizations, has attained the status of a classic. A unique and distinctive group—finest calfskin and saddle leathers, precision steel work and carefully selected imported marbles. Write for complete illustrated brochure. Laverne, 160 East 57th Street, New York 22, New York.

(296a) Contemporary Danish Furniture: New line featuring the "Bramin" convertible sofa designed by Hans Olsen, awarded first prize at the annual Danish Furniture Exhibition; other noted architects and designers include Gunni Omann, Carl Jensen, Jens Hjorth, Bjerrum, Joho. Andersen, Hovmand Olsen and N. M. Koefoed. For further information, catalog and price lists write on your letterhead to: Selected Designs, Inc., 9276 Santa Monica Boulevard, Beverly Hills, California.

(167a) Contemporary Danish and Swedish Furniture. Outstanding design and quality of craftsmanship. Information available to leading contemporary dealers and interior decorators. Pacific Overseas, Inc., 478 Jackson Street, San Francisco, California.

HEATING AND COOLING

(323a) Heating and Cooling Systems: Racon Heating Systems are the result of over ten years of research and application in thousands of California homes, and in commercial, industrial, and institutional structures. The Racon Boiler is made in four sizes—from 90,000 BTU to 260,000 BTU. Racon Radiant Cooling in ceilings is a recent development with a promising potential. Racon Swimming Pool Boilers are used in direct fire and radiant heat installations of pool heating. For detail booklet write to: Racon Heating & Cooling Corporation, 795 Kifer Road, Santa Clara, California.

LIGHTING EQUIPMENT

(965) Contemporary Fixtures: Catalog, data good line contemporary fixtures, including complete selection recessed surface mounted lense, down lights incorporating Corning wide angle Pyrex lenses; recessed, semi-recessed surface-mounted units utilizing reflector lamps: modern chandeliers for widely diffused, even illumination; Luxo Lamp suited to any lighting task. Selected units merit specified for CSHouse 1950. Harry Gitlin, 917 3rd Avenue, New York 22, New York.

(119a) Recessed and Accent Lighting Fixtures: Specification data and engineering drawings of Prescolite Fixtures; complete range contemporary designs for residential, commercial applications; exclusive Re-lamp-a-lite hinge; 30 seconds to fasten trim, install glass or re-lamp; exceptional builder and owner acceptance, well worth considering.—Prescolite Manufacturing Corporation, 2229 4th Street, Berkeley 10, California.

(319a) Ceiling and Wall Fixtures: Complete line of contemporary ceiling and wall fixtures, residential and commercial, created by Denmark's leading architects and form designers. Materials featured are spun-metal with glass or teakwood. Also combinations of glass and teakwood, and other variations. Excellent choice of colors available in most fixtures. This exciting new line is of particular interest to architects and designers, and inquiries are invited. Nordic Imports, Inc., 7853 Seville Avenue, Huntington Park, Calif. Cable address: Nordicimp. Phone: LUdlow 7-2977.

(255a) Lighting Equipment: Skydome, basic Wasco toplighting unit. The acrylic plastic dome floats between extended aluminum frames. The unit, factory assembled and shipped ready to install, is used in several Case Study Houses. For complete details write Wasco Products, Inc., 93P Fawcett St., Cambridge 38, Massachusetts.

MISCELLANEOUS

(225a) Kaiser Aluminum, for Product Design & Manufacture: A new 24-page booklet containing up-to-date information on Kaiser Aluminum mill products and services is now available. Includes data on aluminum alloys, forms, properties, applications and availability. An abundance of tables and charts throughout provides convenient reference material. Booklet may be obtained from Kaiser Aluminum & Chemical Sales, Inc., Industrial Service Div., Dept. AA, 1924 Broadway, Oakland 12, California.

(286a) Built-In Vacuum Cleaning System: Highly efficient built-in central cleaning system for residences, institutions, and light commercial buildings. System features inlets in each room on wall or floor to allow easy reach with the hose and its attachments. From the inlets, tubing leads to the power unit which can be placed on service porch, garage or any spot handy for infrequent emptying of the large dust receptacle. System is dustless, quiet, convenient and practical for all rooms, furniture, fabrics, rugs, home workshops, cars and carports. Vacuums wet or dry surfaces. Write for information and brochure: Central Vacuum Corporation, 3667 West 6th St., Los Angeles 5, California. Phone DUnkirk 7-8131.

(956) Indoor Incinerator: Information Incinor unit for convenient disposal combustible refuse, wrappings, papers, garbage, trash; gas fired, unit is 35" high, 22" in diameter, weighs 130 pounds, has capacity of two bushels; heavy steel plate combustion chamber; AGC approved; excellent product, merit specified CS-House 1952.—Incineration Division, Bowser, Inc., Cairo, Illinois.

(335a) A new exterior body and trim finish which gives up to two years additional life is available from W. P. Fuller & Company. This new paint, called "Fuller House Paint," gives a longer life of freshness and brilliance which lengthens the repaint cycle. Color card and data sheets may be obtained from W. P. Fuller & Company, 222 North Avenue 23, Los Angeles 54, California.

(300a) Home Furnishings: A series of brochures illustrating its new line of contemporary home furnishings and decorative accessories is now available from Raymor. Clocks, wall decor, Scandinavian and domestic furniture, lighting, occasional furniture and many artware and decorative accents are among the units newly cataloged. All literature is available to the trade upon written request on professional letterhead. Inquiries should be addressed to Raymor, 225 Fifth Avenue, New York 10, New York.

(331a) Industrial Equipment: For shop and plant areas—Borroughs adjustable steel shelving and shop equipment, Lyon lockers, Royal industrial and cafeteria seating, GR Soundex partitioning, steel or wood floor-to-ceiling walls. Large warehouse stocks. Display facilities available to architects and their clients. Write to The Hart-Cobb-Carley Company, 2439 South Yates Avenue, Los Angeles 22, California.

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(334a) The Averycolor reproduction is a color-fast, non-glare, satin-finish print of durable photographic stock, not acetate base material. Two years of research coupled with twenty years of experience in the photographic field have resulted in a revolutionary change in making reproductions from architectural renderings. Other services include black-and-white prints, color transparencies, custom dry mounting and display transparencies. For further information write: Avery Color Corporation, 1529 North Cahuenga Boulevard, Hollywood 28, California.

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(341a) T Steel Roof Decking has met with enthusiastic approval due to its contemporary architectural effects, as well as economical and structural advantages. This deck spans up to 32 feet, forms a diaphragm to transmit seismic and wind loads while acting as an economical means for electrical and acoustical treatment of ceilings. For further information: T Steel Corporation, P. O. Box 487, Kirkland, Washington.

(333a) Plywood Roof Systems: Berkeley Plywood Company Panelized Roofs are described in a brochure available to Architects, Engineers and General Contractors. The roof systems are engineered, fabricated and installed by Berkeley Plywood Company, who has pioneered development in plywood roof, wall and floor diaphragms and many other plywood building components. Write to Berkeley Plywood Company, 1401 Middle Harbor Rd., Oakland 20, Calif., or 4085 Sheila St., Los Angeles 23, Calif.

(223a) Built-up Roofs: Newest brochure of Owens-Corning Fiberglas Corp. outlining and illustrating advantages of a Fiberglas-reinforced built-up roof. A built-up roof of Fiberglas is a monolithic layer of waterproofing asphalt, reinforced in all directions with strong fibers of glass. The porous sheet of glass fibers allows asphalt to flow freely, assures long life, low maintenance and resists cracking and "alligatoring." The easy application is explained and illustrated in detail with other roofing products. Owens-Corning Fiberglas Corp., Pacific Coast Division, Dept. AA, Santa Clara, California.

SOUND CONDITIONING

(310a) Sound Conditioning: Altex Lansing Corporation, manufacturers of complete matched and balanced quality home high fidelity systems. (Merit Specified for Case Study House #18). Altec Lansing equipment includes tuners, preamplifiers, power amplifiers, loud speakers, loud speaker systems, and loud speaker enclosures. Complete home high-fidelity systems available from $300.00 to $1,600.00. Prices for professional and commercial equipment available upon request. Altec Lansing is the world's largest producer of professional sound equipment, and specified by leading architects the world over for finest reproduction of sound obtainable for homes, offices, stadiums, theatres, and studios. Engineering consultation available. For complete information write to: Altec Lansing Corp., Dept. AA, 1515 South Manchester Avenue, Anaheim, California.

SPECIALTIES

(152) Door Chimes: Color folder NuTone door chimes; wide range styles, including clock chimes; merit specified for several Case Study Houses.—Nutone, Inc., Madison and Red Bank Roads, Cincinnati 27, Ohio.

(122a) Contemporary Ceramics: Information prices, catalog on contemporary ceramics by Tony Hill, includes full range table pieces, vases, ash trays, lamps, specialties; colorful, full fired, original; among best glazes in industry; merit specified several times CSHouse Program magazine Arts & Architecture; data belong in all contemporary files. — Tony Hill, 3121 West Jefferson Boulevard, Los Angeles, California.

(267a) Fireplace: Write for free folder and specifications of "Firehood," the conical fireplace, designed by Wendell Lovett. This metal open hearth is available in four models, black, russet, flame red and white, stippled or solid finish. The Condon-King Company, 1247 Rainier Avenue, Seattle 44, Washington. Southern California Representative: Scan, Inc., 102 South Robertson Boulevard, Los Angeles 48, California.

(143a) Combination Ceiling Heater, Light: Comprehensively illustrated information, data on specifications new NuTone Heat-a-lite combination heater, light; remarkably good design, engineering; prismatic lens over standard 100-watt bulb casts diffused lighting over entire room; heater forces warmed air gently downward from Chromalox heating element; utilizes all heat from bulb, fan motor, heating element; uses line voltage; no transformer or relays required; automatic thermostatic controls optional; ideal for bathrooms, children's rooms, bedrooms, recreation rooms; UL-listed; this product definitely worth close appraisal. Nutone, Inc., Madison & Red Bank Roads, Cincinnati 27, Ohio.

(252a) Stained Glass Windows: 1" to 2" thick chipped colored glass embedded in cement reinforced with steel bars. A new conception of glass colored in the mass displays decomposing and refracting lights. Design from the pure abstract to figurative modern in the tradition of 12th century stained glass. For brochure write to Roger Darricarrere, Dept. AA, 3716 Fletcher Drive, Los Angeles 65, Cali-

(240a) Swimming Pools: Anthony Pools introduces easy-to-operate rust-proof filter system with highly effective bacteria elimination. Nighttime illumination by underwater light. Special ladder a unique feature. Will design and build pool of any size. Terms can be arranged to customer's satisfaction. Write for brochure: Anthony Pools, Dept. AA, 5871 East Firestone Boulevard, South Gate, California.

STRUCTURAL MATERIALS

(291a) Decorative Natural Stone: For residential and commercial appliction. Quarried in Palos Verdes Peninsula of Southern California. Palos Verdes Stone offers wide range of natural stone is most popular types, distinctive character, simple beauty with great richness. Soft color tones blend on all types construction to create spacious beauty and appeal. For interior and exterior use. Send for complete color brochure and information. Palos Verdes Stone Dept. Great Lakes Carbon Corporation, 612 South Flower Street, Los Angeles 17, California.

(113a) Structural Building Materials: Free literature available from the California Redwood Association includes "Redwood Goes to School," a 16-page brochure showing how architects provide better school design today; Architect's File containing special selection of data sheets with information most in demand by architects; Redwood News, quarterly publication showing latest designs; individual data sheets on Yard Grades, Interior Specifications, Exterior and Interior Finishes. Write Service Library, California Redwood Association, 576 Sacramento St., San Francisco 11, Calif.

(208a) Texture One-Eleven Exterior Fir Plywood: This new grooved panel material of industry quality, is in perfect harmony with trend toward using natural wood textures. Packaged in two lengths and widths; has shiplap edges; applied quickly, easily; immune to water, weather, heat, cold. Uses include: vertical siding for homes; screening walls for garden areas; spandrels on small apt., commercial buildings; inexpensive store front remodeling; interior walls, ceilings, counters. For detailed information, write Dept. AA, Douglas Fir Plywood Association, Tacoma 2, Washington.

(318a) Concrete Structural Wall Units: Design information and construction data available concerning Carduco, the most unusual building material made. Carduco is structural; approved by building codes; practically impervious to water without surface treatment. It is manufactured in patterned design components as well as textured and plain. Integral color is supplied to specifications. Where required Carduco can be furnished with a five-hour fire rating and built-in insulation with a K factor of 2; U factor of 0.31. Write Carduco, P. O. Box H. Stanton (Orange County), California.

(194a) Celotone Tile: New, incombustible, highly efficient acoustical tide molded from mineral fibres and special binders. Irregular fissures provide travertine marble effect plus high degree sound absorption. Made in several sizes with washable white finish. Manufactured by The Celotex Corporation, 120 So. La Salle St., Chicago 3, Illinois.

SURFACE TREATMENTS

(324a) Surface Treatments: "Byzantile—by Mosaic." This new illustrated booklet describes the brilliant new ceramic mosaic patterns for floors and walls, indoors and out. Byzantile offers great latitude in color, scale and decorative effect. For full details ask for form #219. For information about the use of Mosaic Ceramic Tile in institutional and commercial buildings write for—"Mosaic Ceramic Tile; basic floor and wall material in buildings of today"—form #208. "The Mosaic Tile Book of Beautiful Homes" (form #195-WCR) is a 16-page booklet especially designed for homemakers. Write to: The Mosaic Tile Company, 829 North Highland, Hollywood 38, California.

(346a) Triangle Tile by Hermosa, 6" equilateral glazed ceramic triangles available in all Hermosa colors, in bright glaze, satin glaze, and Dura-Glaze. Triangle Tile brochure shows unlimited possibilities of this medium for light duty floors, walls, wainscots or entryways in any room. Excellent for bold design effects or abstract murals. Triangle Tile has all durable features of Hermosa glazed ceramic tile and has spacers for accurate setting. Write for complete brochure to Gladding, McBean & Co., 2901 Los Feliz Boulevard, Los Angeles 39, California.

(283a) Ceramic Tile: Write for information on new Pomona Tile line. Available in 42 decorator colors, four different surfaces, 26 different sizes and shapes. Ideal for kitchen and bathroom installations. Pomona Tile is practical; lifelong durability, resists acids, scratches and abrasions, easy to keep clean. No wax or polish necessary, exclusive "Space-Rite" feature assures even spacing. Top quality at competitive prices. Pomona Tile Manufacturing Company, 629 North La Brea Avenue, Los Angeles 36, California.

(343a) Uni-Dek—complete ceramic tile counter-top in a package: This complete ceramic tile installation offers exclusive appearance. Fewer pieces to set, greater economy because you can set the same area for less cost. Handsome, neat appearance. Only counter-top with exclusive Ceratile patterns on back-splash. Fewer grout joints make for easier cleaning. Uni-Dek has one-piece stretchers and angles, all in standard 6" x 6" size. Back-splash available in plain colors or patterns. For colorful new brochure on Ceratile and Uni-Dek, write to Pacific Tile and Porcelain Company, 7716 Olive Street, Paramount, California.

(336a) Surface Treatments: Vitrocem glazed cement finishes are being used by more and more architects where a hard, durable impervious surface is essential. Available in unlimited colors and multi-color effects, it is being used for interior and exterior over all types of masonry and plaster surfaces and over asbestos panels for spandrel and window-wall construction. For information and samples, please write to Vitrocem, P.O. Box 421, Azusa, California. EDgewood 4-4383.

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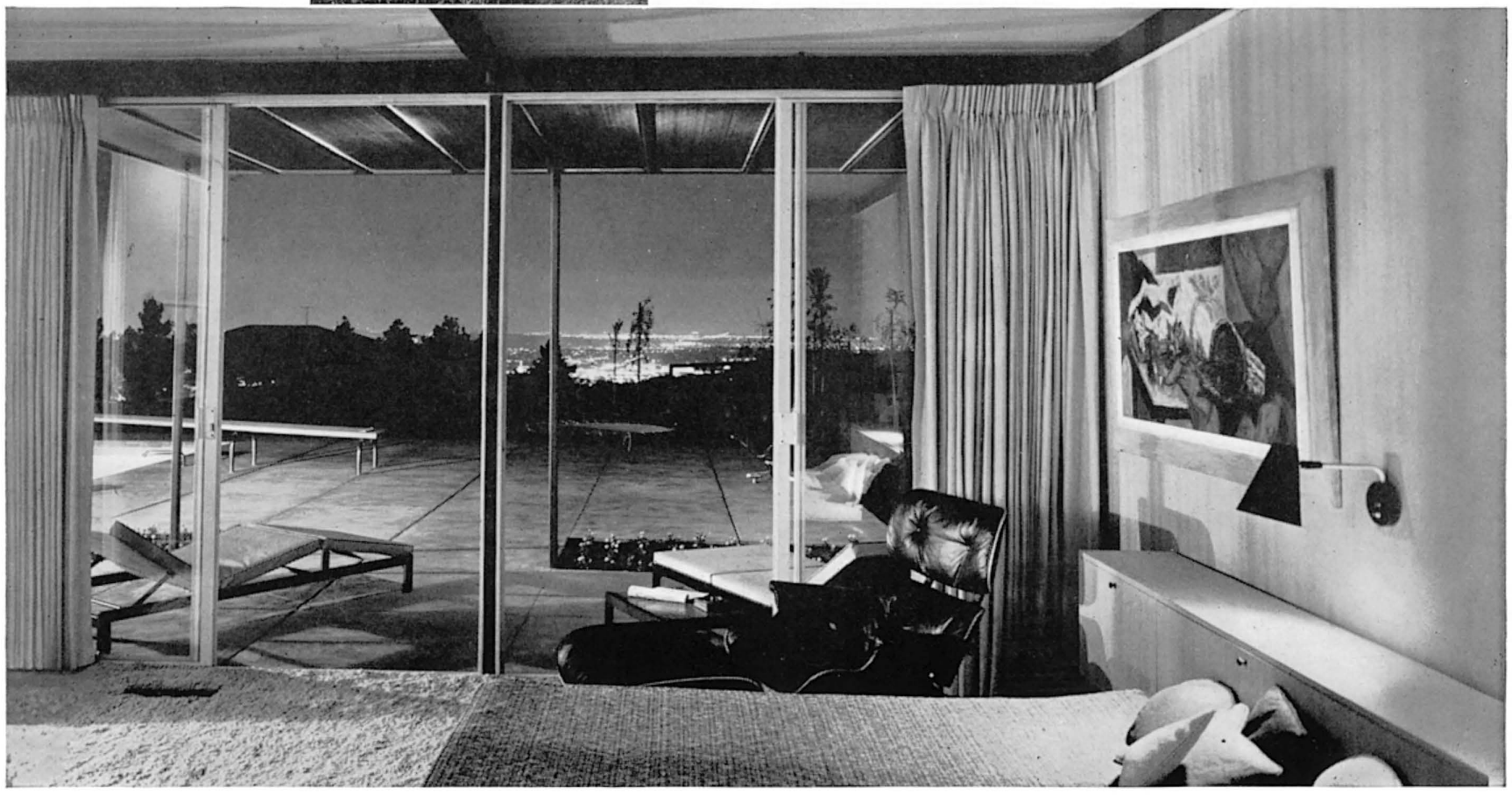

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