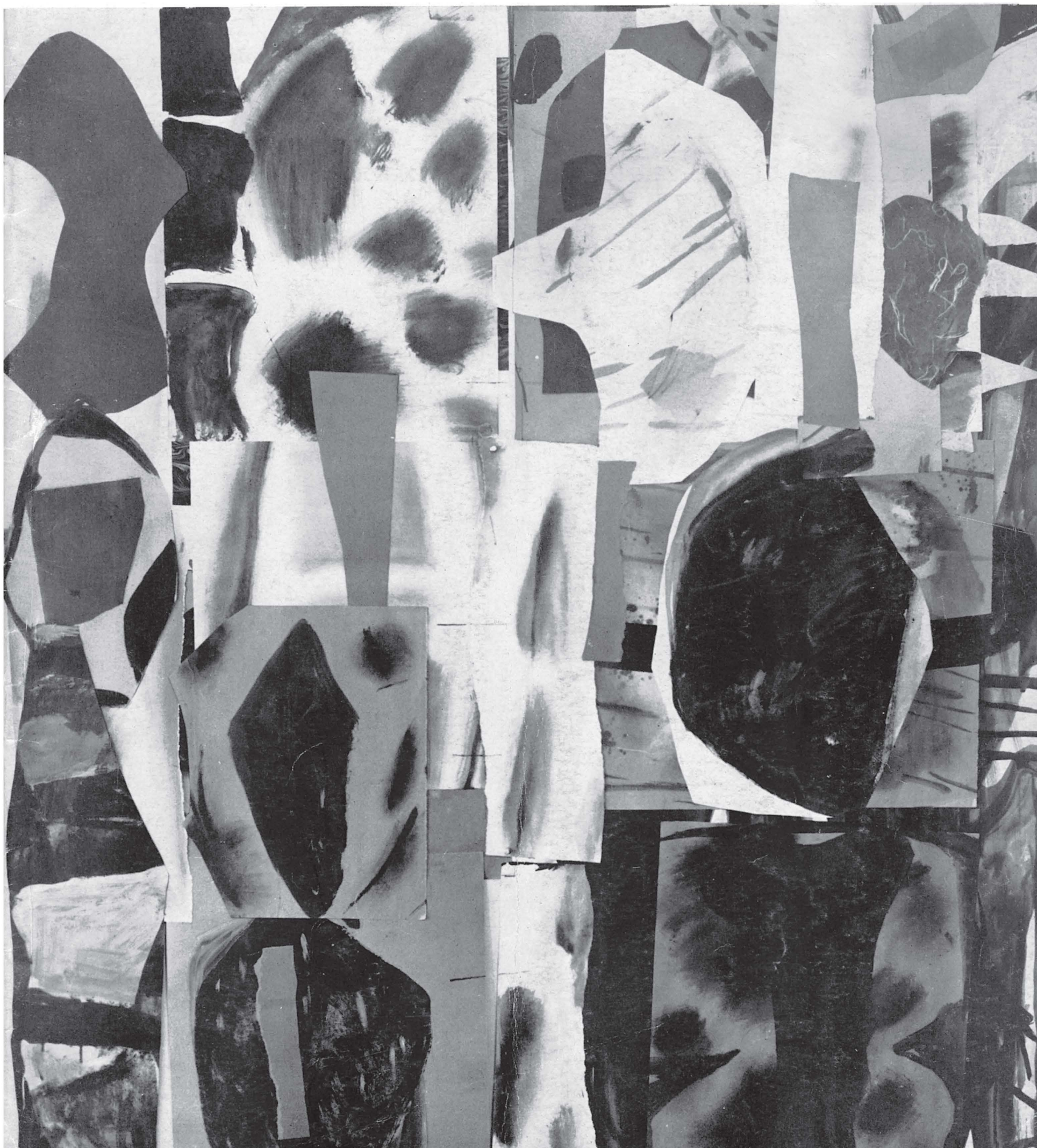


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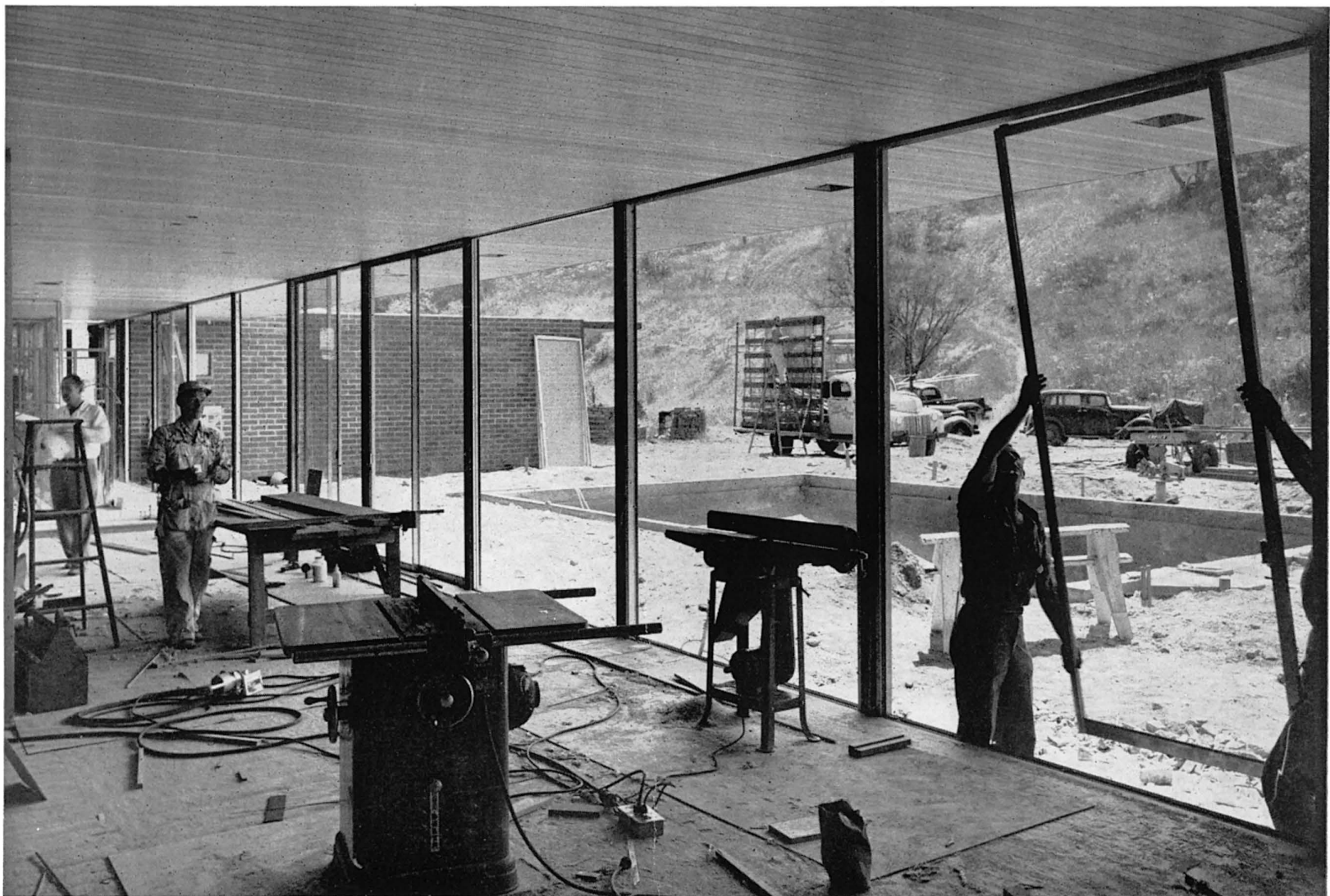
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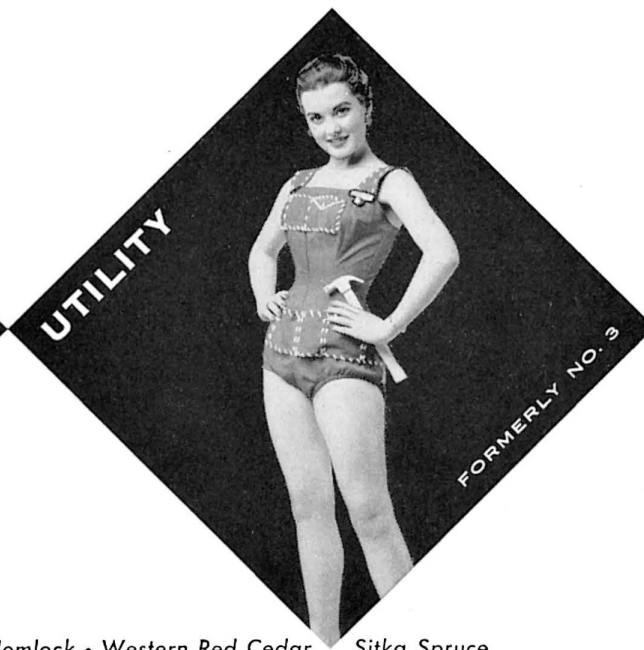
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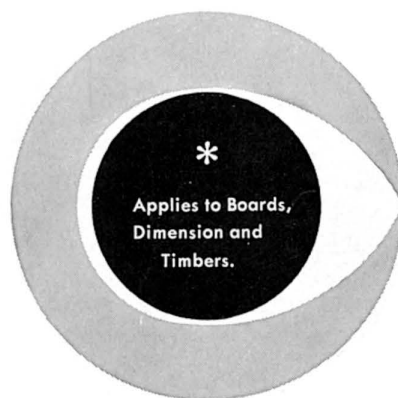
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MUSIC

PETER YATES

THE ART AND PLEASURE OF BEING AN AMATEUR IN MUSIC

[This talk was read to an audience at Arizona State College, January 8. Several items will be well known to readers of this column; I repeat them for the sake of the whole argument. Because the talk runs a little longer than my usual space, I have reduced a portion of it.]

About a year ago Harry Rickel asked me to come to Arizona State College and talk about any subject I wished. I set down a list of titles, then wrote him that I would talk about the Art and Pleasure of Being an Amateur in Music. Since then, in trying to whittle the subject to size, I have written two articles under the titles, *The Wastage of Professionalism* and *The Precious Failure*. The Precious Failure is the person, artist or seeker after art, who does the best he knows how, whether in creating art or in, as the appreciators say, appreciating it. Even at his most professional, and desperate for money, the precious failure may be as incapable as Mozart of cozening the Emperor or coming down to the public. Most of us here are precious failures. We know what we like, or believe we do; if we teach it, we teach what we have ourselves been taught. We have the taste, usually an acquired taste, but not the thing itself. Most of us share, we appreciate, we don't make art. To use a subtle distinction in American idiom: art comes to us naturally, but it isn't natural to us.

Most of us approach art, to begin with, ignorantly: we don't know much about it, but we know—we like to believe we know—what we like. Actually we don't know anything about it; we follow current habit. This means we don't try very hard, and after a while, becoming self-conscious, we stop trying, pretending to ourselves that knowing about art is only for specialists. So we treat art as we treat football, like a public spectacle; and when we have anything to do with art we expect entertainment. The big music operators have got hold of this urge to entertainment very shrewdly; they see to it that

we seldom are allowed on a program any item which might stir us up or alert us that we are not being entertained.

Many of us are aware that something more needs to be done about art or music than just take it in. Art is beautiful, we think, and if we can find out what makes art beautiful, then we shall be able to tell the difference between what is genuinely beautiful and what isn't. You can't put a work of art together by knowing all its parts; art isn't mechanism. The taste of experts can be just as fallible as the taste of any ordinary person.

For a number of years I have been exposing listeners to unexpected musical experiences. Almost without exception they react in the same manner: either a downright "I don't like it" or a qualifying "It's not as good as" something they know better. When you insert unusual music or musical effect into a program, the trick is to program it in such a way that the listener is not fully aware of the difference as something he must automatically resist. In such circumstances an audience will often rise to the most unusual or demanding music in an enthusiasm that grows with its increasing awareness of release. Such events trigger the mutations by which yesterday's oddity becomes tomorrow's genius. Genius is a type of revelation, both in the person who must bring it to focus in himself and in the public world that must eventually receive it.

Most of us believe it must be wonderful to be a genius. That isn't exactly so. Being a genius is an exhausting responsibility, as I have observed in the several men of genius I have known. Genius is easily lost and often misused; anyone who has it and struggles with it to bring it into focus deserves our sympathy—a sympathy we too seldom give and give too late. Have you noticed how generally the great artistic prizes, intended to encourage rising genius, are awarded to old men bent with labor and with honor?

In approaching any work of art that lies outside my habit of experience I begin where the other fellow usually leaves off. I keep going back to the unusual work of art until I am able to comprehend esthetically why it is what it is, instead of something else habit tells me it ought to be. Observe that this comprehension is esthetic, not intellectual. Many a bright person can tell the why of something he esthetically detests; or I might qualify the statement by saying, he believes he can. He can't really, because the intellectual com-

(Continued on Page 6)

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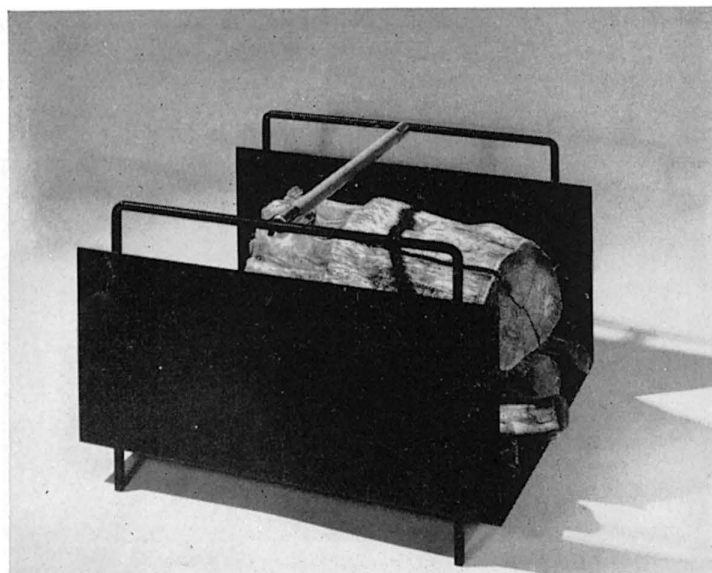
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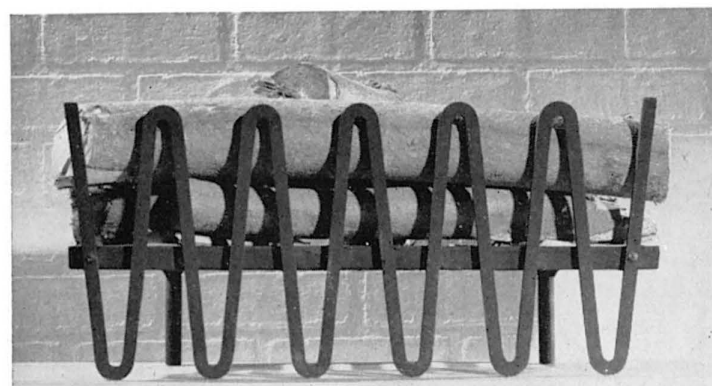
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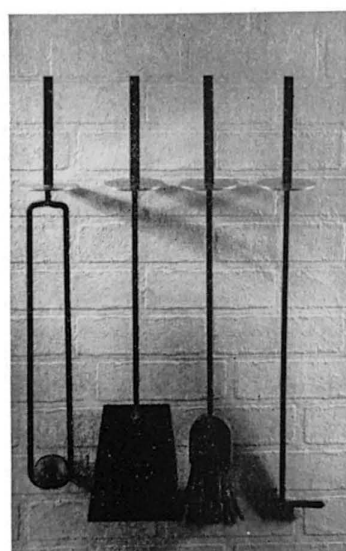
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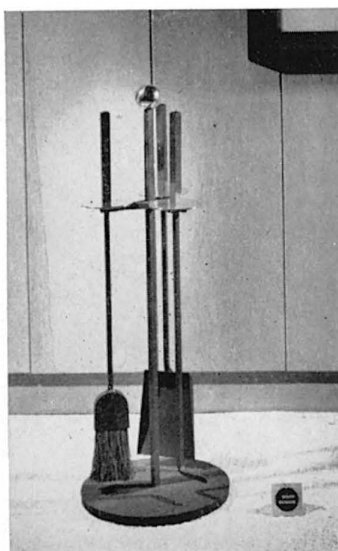


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MUSIC

(Continued from Page 4)

prehension has been prejudiced by his dislike.

A work of art is not beautiful by itself but by the composition, the resolved opposition, the balancing of counter-thrusts, the intertwining of impossibles. A work of art is rough to put together and tough to take apart. Every theory is usually against it. Some think of a work of art as being against theory—just the opposite. It twines in stout cable more theory than the ordinary theorist can manage. The artist discovers what he wants and puts theory to work to get it. The cross-fertilizing of theories may produce such a dog with three legs as Beethoven's Fantasy for piano, orchestra, and chorus, or the esthetic fission of the Ode to Joy.

The trouble in dealing with any work of art is to distinguish. You can't rely on experts. Some expert is always attacking modern art, and quite rightly, when he can't tell the good from the bad. Experts name and catalogue the spare parts of outworn methods. In music that is called musicology. Naming things can be useful when it helps us to tell them apart or reassemble them; it has little to do with esthetic judgment. We think of posterity as making the important decisions and forget that we amateurs are posterity. The amateur does by taste what an expert tries to do out of the book.

Taste decides, but it is our taste and we have to form it. We can't have it ready-made. We think of taste as conventional and creative energy as anarchic. That is an amateur opinion and quite accurate. The war between taste and energy breaks down rules and law to reaffirm them. In the end taste wins. Out of the old convention emerges new convention. Something worth preserving may have been damaged in the process, but something to discover with has been added. The cubist breakdown of forms in search of elementary shape has intensified our recognition of formal cohesion in nature, in primitive art, and in design. The recovery of dissonance as a positive extension of harmonious order has opened our ears to music of many cultures, elaborated along unlike patterns, and to new tone complexes implying entirely unaccustomed aggregations of sound.

An artist dies exhausted, and a new generation admires the inexorable order of his genius. The experts appear and, working backwards, figure out a set of rules. This, they tell us, is how he did it. Such were the rules of arbitrary counterpoint derived from sixteenth century polyphony, in disregard of Handel and Bach, which Beethoven derided after a few sessions with Albrechtsberger, the rules that Schubert regretted he had not found time to study. In the same way Schoenberg's Method of Composing with Twelve Tones, a practical device to extend the field of harmonious sound by emancipating the dissonance, has brought forth at second and third hand a sterile formulary, which Schoenberg, anticipating it, had rejected in advance. Yet even the formulary has released new articulate conceptions.

Schoenberg and Sir Donald Tovey were both gifted analysts of classical styles. An encounter with Sir Donald's music sadly informs us how incapable he was of bringing his analytical knowledge to creative focus.

Experts try to make their rules compulsory and shove them down the throats of the following generation, like a mother robin feeding its chicks regurgitated angleworms. And the new creators, out of the uproar and smoke of their labors, cry back at the insistent critics: "Esthetic gossips! Spiritual scandalmongers! What can you know of the blood and dogma, the humility and height of our forefathers! Come and live with us among us as we live with them in them. Then in the muck, the hazard, the glory, and most of all in the common failure, the ceaseless failure of creative effort, you may understand why art is moral and what creation means."

But the complacent critics, the sidewalk engineers, the satisfied whistlers who blow the same tunes over and over, stroll away hands in pockets. Who, they ask, is paying for the job? Occasionally someone asks: "What's it good for?" A difficult question but more reasonable. You can't argue with such questions, they are not arguable. Nor does it help much to point out how little survives of any period of history except its art. The most ordinary artifacts, cooking pots and tools, are measured first of all by an esthetic standard. Until quite lately nobody was aware of any other reason for preserving ancient objects. A good critic can't do much to help, except as he's been around the same country before and knows the ground. There are no shortcuts, though many are offered; these go around the foot of the mountain but they miss the view.

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We amateurs can deserve and we can make our own art. To do so discriminately, we need drop only the one criterion: What's it good for? or, more plainly, Will it sell? For lack of taste our culture has preferred sale value as the measure of esthetic substance. By the individual artist, or amateur, the question is more pertinently stated: Is what I am doing worth while?

We think of Sebastian Bach as an eminent figure in the community of Leipzig. He was not. Among musical connoisseurs he was an admired church organist. A smaller group admired him as improviser and composer. Informed critics believed then, as similar informed critics believe now of Schoenberg, that he was too difficult. A wise critic complained that by writing out all the embellishments Bach was destroying the art; the same critic would explain now that by doing so he saved it. Much of the difficulty of Schoenberg's music is caused by his revival of closely wrought embellishment. Few of Bach's compositions were published, until in his later years, like a belated Whitman, he set out to engrave and print a representative sample. The edition was not a success. Visiting Potsdam at the height of his powers he was received by Frederick the Great as a survival, the last dinosaur of a lost epoch. In truth Frederick was the survival. The *Musical Offering* which Bach composed for Frederick was preserved through two centuries as a curiosity, until it was played for the first time in 1927.

That is a time-lag of two hundred years. The time-lag in our acceptance of the mature Schoenberg, that is to say approximately forty-five years, since about 1911, seems small by comparison, yet it includes the entire career of Stravinsky. Examining time-lags in the acceptance of composers whose reputation will not die enables us to predict their future influence.

Whatever satisfaction Bach had in his art must have come out of himself. And the music leaves no doubt that he had great satisfaction. He aimed his last works at posterity, over the heads of his contemporaries. He did this not in frustration or despair but one is convinced in calm assurance of the result. Nothing nowadays is thought so to denote the failure, the raw amateur, as writing for posterity. One might put the proposition in reverse and ask who among us has the faith to do so. The confirming recognition of Bach's achievement has grown steadily, beginning among a few friends of the Baron von Swieten, who had the foresight, meaning taste and judgment, to collect in his library all the surviving works by Bach he could lay hands on. Among these few friends of the Baron were Joseph Haydn, young Wolfgang Mozart, and the surly Beethoven. Each of them had his career turned in a new direction by discovering Bach's music.

With Bach on our conscience, let's see what we can find in our own cultural shrubbery. We have in America the greatest musical apparatus mankind has known; we have who can guess how many composers intently serious on putting down their thoughts about music as if these thoughts were music. We have also a few genuine composers, though about these we may differ. Let me mention several names.

My first is of course Charles Ives. I was pleased to observe that in their recent biography of Ives, the Cowells, Henry and Sidney, called him one of the four supreme creators of twentieth century music, the others being Schoenberg, Bartok, and Stravinsky. I had built fifteen years of concert programs around the same decision. I don't list these composers in order of importance. Each earthquake has its fault.

(I went on to talk some more about Ives: Ives wrote for posterity and did not fear it; the present broke his health but not his heart. Then I said that I would play the first movement of his Second Quartet: The movement I offer you is not immediately appealing. I don't say you should like it. As Ives exclaimed to a fellow listener who was objecting to a piece by Ruggles: "It can't hurt you. Stand up to it like a man!")

I have played you this movement because it cannot be excused or condoned. You can't dig up a short theory to explain it. You have to accept or reject it as you do thunder or lightning, a howling wind, old-style oratory, or a fight. The movement contains such ingredients, doesn't imitate them. Composers like Ives have to be accepted by an act of faith; they are too large, too obviously flawed, like the Yosemite or Beethoven, who sometimes exaggerated his bad habits to shock admirers who were admiring the wrong things. The impact of such composers determines art. Their taste will determine the convention to be like them, in spite of all expert negatives. Some part of their work will always require effort and stir up rejection, as

(Continued on Page 9)

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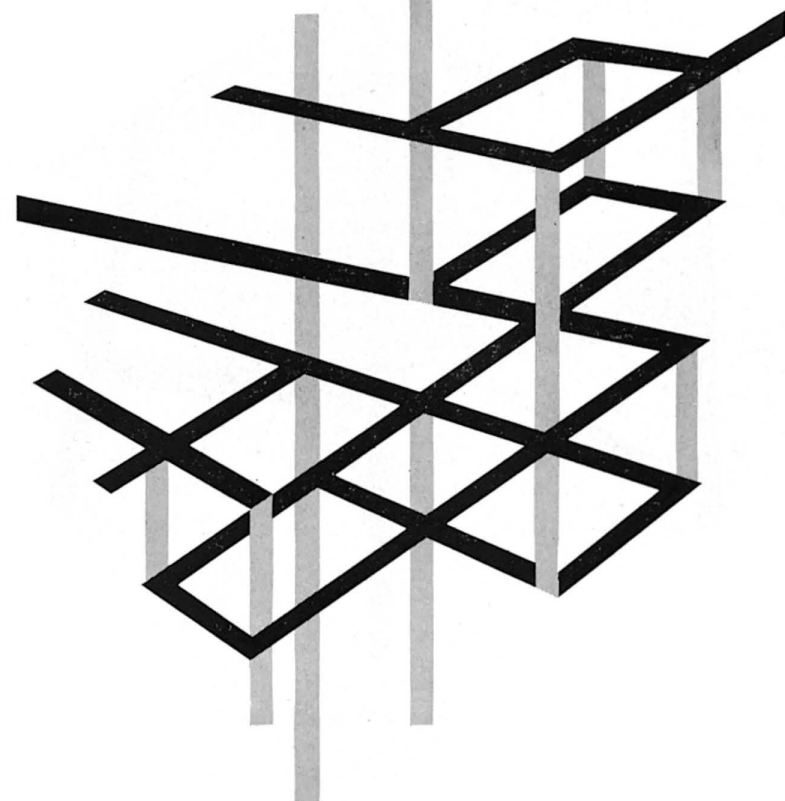
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BOOKS

ROBERT WETTERAU

ITALY BUILDS, by G. E. Kidder Smith (Reinhold Publishing Corporation, \$10.00).

A superbly conceived volume in every detail, demonstrating Italy's indigenous architecture. Mr. Smith's delightfully unpedantic manner makes for one of 1955's most readable, most rewarding architectural books. Ernesto N. Rogers supplements ITALY BUILDS with a penetrating and expressive essay to introduce the native Italian background—important in considering the tremendous cultural renaissance in that country since the end of the war. The photographs, a profusion of them, are skillfully integrated with the text, tied to the page, much as the early great architects sought to "tie the buildings to the square, the square to the site, and the site to the city." Mr. Smith is an expert photographer as well as a good writer.

Mr. Smith's analysis appears in three sections. The first, THE INHERITANCE: The Land and its Architecture, considers the varying climatic conditions, unusual geological formations, the hilly terrain. Alongside the descriptions the handsome photographs of high mountain architecture, foothill and Dolomite types, plain architecture of the Po Valley, hill architecture of Central Italy. Amazing vernacular building showing climate adaptation through orientation, and the use of the vented wall. Following this, a display of the natural use of terrain.

The second portion, THE INHERITANCE: The Urban Setting, is given to the magnificent piazze, the great squares as urban cores; changes in urban levels; the use of water and steps. This part alone is worth the price of the book with its photographs of St. Mark's Square, Venice, The Campidoglio, Rome; Piazza Umberto I, Capri, and others.

Thirdly, THE MODERN ARCHITECTURE OF ITALY, its background concisely drawn, takes up a good half of the book. Mr. Smith is very understanding of the Italian people and their problems, and while enthusiastic, he remains admirably objective in pointing out the weak points as well as the virtues of contemporary work. "Actually the architect with the greatest understanding of and ability in modern work possesses the greatest understanding of their inheritances. This is a healthy attitude of Italy's top men; it is unfortunate that so many of its architects are not equally enlightened.

"This admirable intellectual profundity and appreciation has had two interesting effects on modern work. One, it has integrated architecture with painting and sculpture to a degree unknown outside Italy; two, it has shown how old and new can combine to the advantage of each, the new respecting but never aping the old."

Examples of fine shops, exhibitions, low-cost housing, memorials, warehouses, factories and a good section allotted to the magnificent structures of Pier Nervi conclude the book. Highly recommended.

SCULPTURE IN EUROPE TODAY, by Henry Schaefer-Simmern (University of California Press, \$8.50).

Professor Schaefer-Simmern's book is a guide to the understanding of modern sculpture as works of art. His method seems to me a sound, combative one in eliminating some of the esoteric, present-day over-intellectualizing about modern art in general.

"Visual art," says the author, "is first of all, the outcome of creative vision. The greatness of vision in creative art can only be grasped, however, by one's own developed vision; it will never be apprehended by verbalization." He does use words briefly when they can act "as mediators to help direct observation toward particular artistic facts."

His survey outlines the directions in sculpture since the late nineteenth century; the visual demonstration includes the works of 64 sculptors in 128 plates (about two-thirds of them never before reproduced) showing the change in trends from "imitative naturalism" to a highly developed simplicity arising from the artist's own conceptions. Among the sculptors whose work appears are Manzu, Fazzini, Marino Marini, Marcks, Geibel, Armitage, Moore, Brancusi, Arp, Karl Hartung, Pevsner, Bill and Bloc. Biographical notes on each are included.

ICON AND IDEA: THE FUNCTION OF ART IN THE DEVELOPMENT OF HUMAN CONSCIOUSNESS, by Herbert Read (Harvard University Press, \$7.50).

The seven chapters, The Vital Image, The Discovery of Beauty, Symbols of the Unknown, The Human as the Ideal, The Illusion as the Real, Frontiers of the Self, The Constructive Image, are based upon the Charles Eliot Norton Lectures given at Harvard in 1953-54, dem-



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SHOWROOMS: EXHIBITORS BUILDING, GRAND RAPIDS 2, MICHIGAN

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onstrating seven epochs in the history of art from the Stone Age to the present. Sir Herbert Read shows how the plastic image precedes the verbalization of philosopher and scientist in his hypothesis to establish historical priority for the symbols of art.

The fascinating hypothesis that the image always precedes the idea in the development of human consciousness stems from Conrad Fiedler, the poet Holderlin and others: "In Holderlin we find the notion that the function of the poet is the transmutation of the world into word." The book, written in deceptively simple, compressed prose of high specific gravity makes for slow, although very rewarding reading.

BEHIND THE PICTURE WINDOW, by Bernard Rudofsky (Oxford University Press, \$4.00).

It is difficult to find precedent for Bernard Rudofsky's book. He seems to stem from Robert Burton via S. J. Perelman. If this seems far fetched, **BEHIND THE PICTURE WINDOW** is an anatomy of boredom and contains a chapter on beds, bedrooms, and sleeping habits called "The Arms of Murphy."

In unwrapping the domestic package called "the conventional modern house" Rudofsky airs out some of the more imbecilic mores which control our way of being, doing, and going. "If Harriet Beecher Stowe and Emily Post have a say, rather than Vitruvius and Vignola, it is in recognition of the fact that they carry more weight in this country. To the woman on the street Vitruvius is a perfect stranger and therefore of no account, whereas Mrs. Post's words to her may have proven a veritable bannister through life."

This book is an amusing examination of the "inmates" and their behavior in the modern box where the kitchen has become a place for the warming and thawing of food and the living room a veritable arena. Bernard Rudofsky is a wise and witty architect and while his observations are sometimes riotously funny, his implications are serious, indeed.

THE NEW DECADE: 35 AMERICAN PAINTERS AND SCULPTORS, edited by John I. H. Baur (The Macmillan Company, \$3.75).

The catalogue of the exhibition held at the Whitney Museum of American Art in the spring of 1955 and shown recently at the Art Galleries of the University of California at Los Angeles. The 27 painters and 8 sculptors provide statements of their aims and Mr. Baur furnishes biographical notes. Among the artists to emerge during the decade since the end of the war are Willem de Kooning, George Toker, Joseph Glasco, Sue Fuller, David Hare, Bernard Perlin and others whose work varies from non-objective to "magic" and meticulous realism. The catalogue contains 94 black and white illustrations.

THE HUMAN PROSPECT, by Lewis Mumford. Edited by Harry T. Moore and Karl W. Deutsch (The Beacon Press, paper bound, \$1.45).

A potpourri of essays and other writings by Lewis Mumford taken from his books, uncollected magazine articles, and a previously unpublished article "The 'New Man' and the 'New Woman.'" Noteworthy are "The Monastery and the Clock" from **TECHNICS AND CIVILIZATION**, "The Origins of the American Mind" from **THE GOLDEN DAY**, "Program for Survival" from **VALUES FOR SURVIVAL** and "The Triumph Over Systems" from **THE CONDUCT OF LIFE**. It is good to see continuing in print the writings of one of our most important social critics. Whether Mr. Mumford touches upon art, architecture, sociology, or literature, he is invariably illuminating.

MUSIC

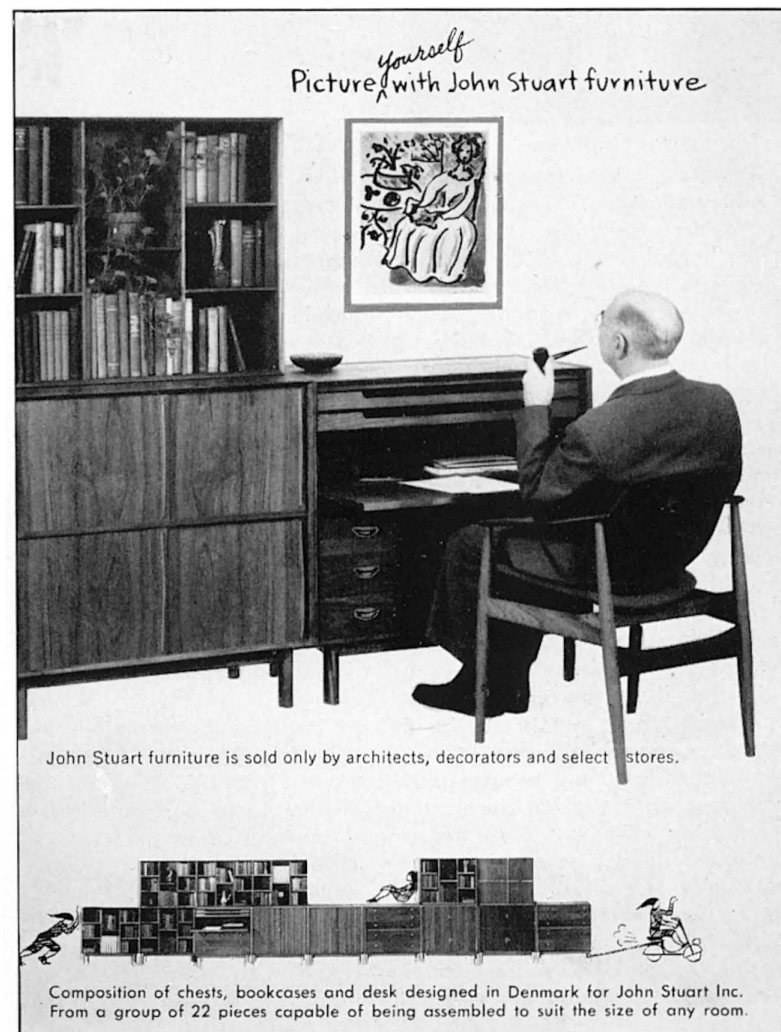
(Continued from Page 7)

today many persons cannot accept Beethoven's *Solemn Mass* or the *Great Fugue*. It is our work, the strength of amateurs functioning deliberately and thoughtfully as posterity, to commit the act of faith by which such artists flourish.

(I continued by mentioning the names of several American composers, each with a brief comment: Ruggles, Riegger, Copland, Gershwin, Kilpatrick, Cowell, the Gertrude Stein operas by Virgil Thomson, and three creative radicals, Cage, Varese, and Partch. Then I played the final chorus and return of the blinded king from Partch's *King Oedipus*).

All of us have a taste for music, usually an acquired taste. We share a common knowledge of a very small part of musical literature. Most of us believe that music is fundamentally emotional and based with some deviations on a single harmonic system. A great part of the world's musical literature and theory does not comply with these specifications. We believe music must be judged by the

(Continued on Page 31)



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ART

DORE ASHTON

New York moves through movements like a tusk elephant through a pigmy village. Afterwards, the results can be talked about, and by that time, the beast is on to other jungles. For the past few years, we've been hearing of the "abstract expressionist" movement identified with the New York school. This "movement" found its sources both in American romantic painting and in European expressionist painting. Although there have been a few sidelines, as painting based on extraneous sources like the Orient and Zen Buddhism, the predominant issue was abstract expressionism.

Now we begin to hear about "new nature" and "the return to the recognizable image." This, judging from products of the movement, harks back in a direct line to 19th century academicism. It is apparently given its impulse by younger painters who must have the experience of traditional painting. And who want us to know they are having it. The new naturalism comes close to displacing the old abstract expressionism. What appeared to be a solid indigenous movement a few years back is disintegrating and as the flesh falls away, some critics and painters believe they see a familiar skeleton beneath. They even go so far as to suggest that they knew it was there all the time.

So now we have a sector on the art front jubilantly discovering nature. And with that, the "New York School" appears to be split down its middle, if it can be said to have a middle. We seem to have reached the great generational divide. Only, our generations are marked off in terms of single years instead of in the classical decade manner. There are the erstwhile leaders of the avant garde developed just after the recent war (Pollock, deKooning, Vicente, Rothko, Motherwell to mention just a few) and there are their younger friends who were often students until the late 1940s. For some reason, the young now come forward with the *éclat* that used to be reserved only for painters of long standing. And what they bring, in many cases, is a youthful conservatism which reflects not only a distinct reaction to avantgardism *per se*, but a conformism to the entire current social and political situation. I don't want to take too much space here analyzing the general insecurity, its symptoms and reasons. It is important, though, to acknowledge that there has been a falling off of passionate radicalism, a creeping muteness among critics, and an increasing tendency to discuss only matters which can justifiably be called tentative. For example, it is far easier to talk about painters in the 20s and 30s since it is taken for granted that they are still in formative periods. No commitment is required other than a simple faith in talent. It would be far more complicated to select a dozen major painters in more mature phases of their art, and honor them with a serious inquiry into their origins and achievements.

Two exhibitions this month provoke thoughts along these lines. One is a selection of 21 artists, most of whom can be classed the younger generation. They were selected by Thomas B. Hess, executive editor of *Art News* for an article in the *Art News Annual*, and are represented in this exhibition at the Stable Gallery with several works each. The other is an exhibition of 15 years of Jackson Pollock, one of the "older" men. The Pollock show comes as a shock. With the repeated exhibitions of artists under 35, new talent, new generations, new nothings, there has been little room in New York for those of the 1940 generation of new talent. (Or for those older. Just one example of this is the fact that the Museum of Modern Art does not appear to own a Hans Hofmann.)

One of the provoking aspects of the Pollock show is that it insists on analytical and conclusive approaches. Looking back over 15 years' development, one is constrained to note the steps which brought Pollock to revolutionary conclusions. He was around 26 years old when he painted the first works in the show, approximately the age of some of the painters in the Hess show. His cue was taken from Picasso, the Picasso of the "Girl in the Mirror," painted in 1932 and acquired by the Museum of Modern Art in 1938, the year Pollock painted "Masqued Image." In blunt colors—reds, blues, greens, blacks and yellows—the painting bespeaks Picasso also in its ambiguous figure, its heavy black delineation, its decorative stitching, dotting and zig-zagging. But there are Pollock qualities which begin to appear even in this early work which will remain constants. They are the hallmarks of his style. They are an insistent stress on the

curving form, the womb or cocoon enclosure. Even in his late "drip" paintings, this instinct for circular enclosure is present. There is an urge to integrate *all* of the canvas with interlocking form. There is love for lapidary detail—the dragged brushline, the points in space, the curlicues relating volume to volume.

Pollock was in his early 30s when he painted "Pasiphae," still one of the most exciting paintings in the show. This long horizontal canvas, filled with charging lines and energetic forms, fulfills the expressionist urge which was then, in the early 40s becoming manifest among a number of painters. Pasiphae, who seems to be making love with the white bull, is set in an ovoid central shape which is bastioned on either end with vertical centurions and sidestitched with symbolic, biomorphic shapes. The electric moment, on verge of orgasm, is conveyed by means of the rhythmic yet jogging line, a characteristic carried over in later non-objective works. This painting shows two major Pollock virtues. The first is his color which appears to be casually selected but is really handled with infinite decision. The second is his unfailing instinct for structure. Pollock is a painter who can make a color superimposed on a color into a complex form. Here, in one small passage, an ochre under a blue under a yellow creates a clear, readable series of planes. This painting, and "Totem" of 1945 break with European symbology. Pollock's use of organic forms begins to pend with a new significance. And it paralleled Gorky's development in that period. What Breton called Gorky's insistence on the "hybrid" form appears in Pollock as well. These hybrid, guts-like shapes are invested with a meaning which is no longer a part-promise with picture construction. When Gorky, Rothko and Pollock played with totemic images, or inward forms, and when they began to be concerned with a "handwriting" and the signs of the psyche, that is when our abstract expressionism began to take shape. Pollock as well as Gorky were making hecatombs on the altar of the true unconscious.

In 1946, Pollock painted "The Key," possibly his last homage to Picasso and French tradition. Carefully composed, this oil has more familiar devices such as stippled areas, and linear sprays than did the totem series. It seems to have been one of the last hesitations on the threshold of non-objective painting. Two of the forerunners to the large poured paintings are exhibited, both heavily criss-crossed with line, often in ropes of squeezed paint frayed at the edges. This furry quality of stroke later disappears into the calligraphic skeins of a 1950 painting, "Autumn Rhythm." A truly lyrical pean to the life of autumn, the painting crystallized Pollock's earlier essays in the



Jackson Pollock: Totem 1945

Courtesy of Sidney Janis Gallery
Photograph by Oliver Baker



Michael Goldberg

Photograph by Peter A. Juley & Son

value of unique handwriting. From the beauty of the work, its lovely arcs of line, its suggestion of sky and the pace of the wind, one can isolate a specific sensation which can only have been given by a particular man with a special pulse and form will. What Pollock achieved technically in this mural painting and in the 1952 "Convergence," which is more complex and cross-pollinated in its series of superimposed planes, is to release the medium for his personal further use.

"The greatest joy and the greatest triumph in art comes at the moment when, realizing to the fullest your grip over the medium, you deliberately sacrifice it in the hope of discovering a vital hidden truth within you." So says Henry Miller and so apparently Pollock felt after having produced the large poured paintings so full of himself, so much the extension of his psyche. For, after that, he moved

(Continued on Page 32)

notes

in passing

When Leonardo da Vinci announced that man would one day fly like a bird he was considered the victim of an over-vivid imagination. Yet during the first half of the 20th century Leonardo's dream came true and man changed himself into a new being, half animal and half machine. Today, specialists of cybernetics consider this phase of human development from a new and original viewpoint; they are concerned with the biological significance of the machine as an artificial motor-sensory organ, and with the impact of this tremendous advance upon the history of mankind.

Progress is not always understood in the same way; it may take different forms and is subject to various interpretations. Hence differences of opinion arise and some people go so far as to deny its very existence. Yet human progress is undeniable.

Animal evolution, however, is not a gradual and steady progression, but a long and painful succession of experiments in which life perpetuates itself through discontinuous metamorphoses. In other words, organic forms disappear or are reduced through atrophy, and new species arise which develop in ramified variations, but which are always linked genetically. Likewise, human evolution does not follow a straight and unbroken path of progression towards the point reached today by civilized man—the most highly developed of all animals. We know today that the human fossils (anthropomorpha and hominidae) discovered in various parts of the world and long considered as the "missing links" in our evolution, are but the vestiges of varied and sporadic attempts to develop the human intelligence.

In speaking of biological progress, we refer to the development of a complex nervous system, corresponding to higher mental evolution. This evolution follows two main paths of psychic development, whose extremes are represented by man and the insect—the two best examples of "social animals." But their communities are built upon different foundations. In the last century, Maeterlink and Fabre rashly pointed to the social life of the ant as a model for rebellious human beings. Today, better-informed writers, such as Julian Huxley and Caryl Haskins, have shown how the perfection of insect society stems from the simplicity of instinctive life and from the

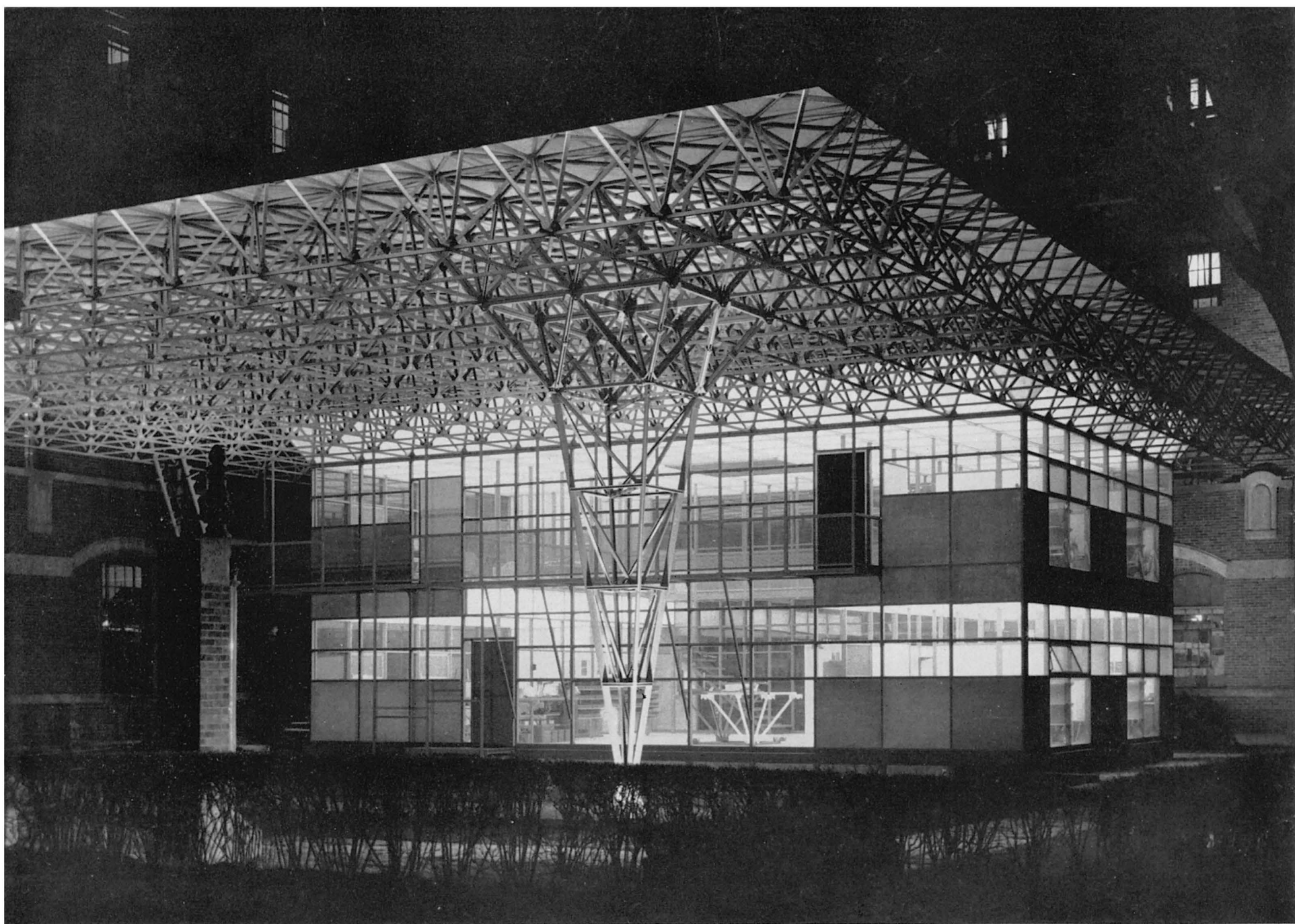
changeless nature of habits acquired in past eras. It should be remembered that species of ants exactly like those which we see today existed fifty millions of years ago and have not evolved at all since then. At that time, man did not exist. Human civilizations belong to more recent times, for, as Haskins puts it, man is "the youngest social animal on earth" and his social evolution is still in its initial stages. Those who deny the possibility of social progress seem to have forgotten these facts. One may assume that insects are incapable of further progress since their habits, primitive though they may be, have reached a stage of perfection. But it cannot be argued that progress from imperfection is impossible. Yet this is precisely the argument put forward by pessimistic sociologists when they claim that the present state of society is unchangeable. This is tantamount to saying that culture is unchangeable.

In fact, the most remarkable aspect of man's social evolution lies in his rapid cultural development, which leads him to create a specifically human world, thanks to his unlimited capacity for combining intelligence with action. Man is thus diametrically opposed to the social insect with its psychic limitations and finds himself subject to two types of evolution—organic (or biological) and cultural.

Organic evolution is slow but continuous. There is no doubt that the human organism is at present undergoing a change. The endocrinal factors—stimulated perhaps by the emotional character of modern life—the changes in environment, the spread of scientific knowledge and the uses and abuses of antibiotics, all these elements tend to produce imperceptible somatic variations. Furthermore, we are reaching a critical stage in the field of cybernetics—that of man's symbiosis with the machine. Throughout history, the development of reason has left its mark upon the mentality, both individual and social, of the human being.

For centuries, primitive societies have maintained cultural structures based on mythical beliefs, a fact which shows how widely social and biological phenomena differ. Human biology is, for the most part, responsible for the functional structure of abstract thought; but this thought creates a new human world, capable of evolving at greater speed than the physical or-

(Continued on Page 30)



Fluorescent tubes along roof perimeter plus three spotlights serve to illuminate the sheltered courtyard

UNISTRUT SPACE-FRAME SYSTEM

A development from the College of Architecture and Design

in collaboration with the College of Engineering of the University of Michigan

The Architectural Research Laboratory of the University of Michigan's College of Architecture and Design has developed a new architectural concept—the Unistrut Space-Frame System, a method of constructing unusually strong roof frames by introducing a third dimension of reinforcement. It was a requirement of the project that the new construction system be geared to industrial mass-production techniques with emphasis on a minimum number of interchangeable parts and on the use of other readily available materials in stock sizes for surfacing the structures. It was intended the structures should be simple to erect, with no single part so heavy or so bulky that it could not be easily handled by one or two workmen. Originally it was proposed as a standardized system of low-cost school construction that would provide buildings with a high degree of durability, flexibility, expendability, demountability and re-usability.

Simply stated, Unistrut is a length of channel-rolled steel, shaped

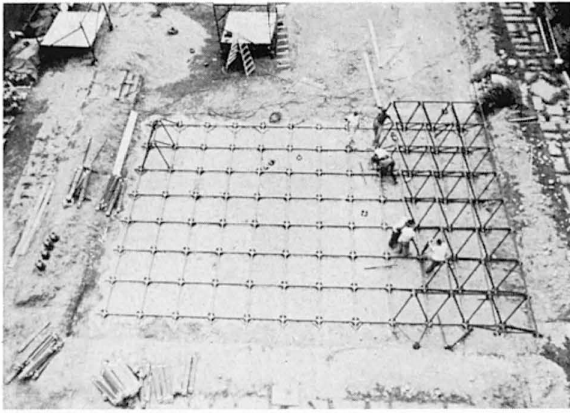
like a squared "U" in cross section. It is produced in several different cross-sectional sizes, which, if desired, can be compounded and spot-welded together at the factory to form larger and stronger sections. Special grooved spring nuts fit into the open slot of each strut length to hold a variety of attachments.

Conventional roofs rest on beams or trusses that extend in two directions between walls. The space-frame is made up of four-foot struts that run in a third direction as well, slanting diagonally between horizontal struts at the roof and ceiling levels.

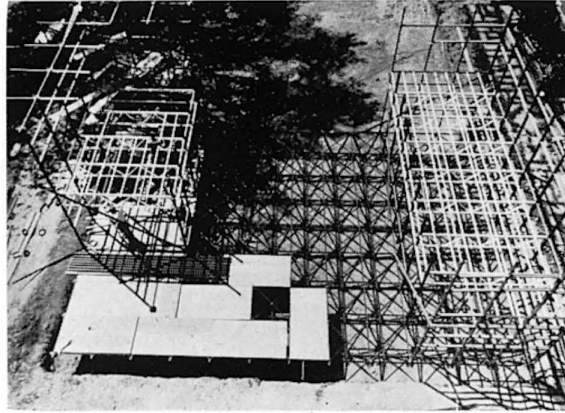
It is held together by specially formed identical connecting plates located at the intersections of the horizontal struts. The roof level plates face downward, the ceiling level plates face upward. Each plate secures eight struts: four in its own horizontal lattice and four that radiate up or down from the opposing plates.

Each plate has small lugs which fit snugly into two of the three

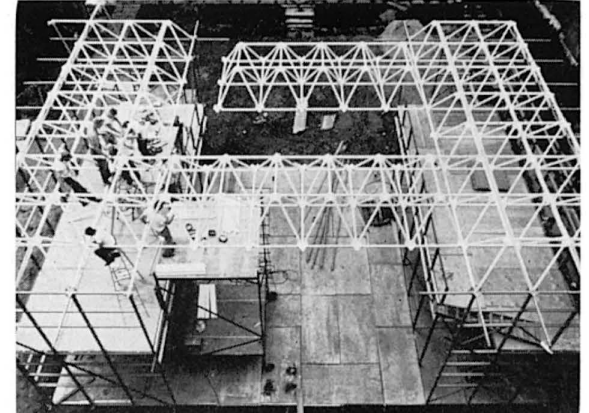
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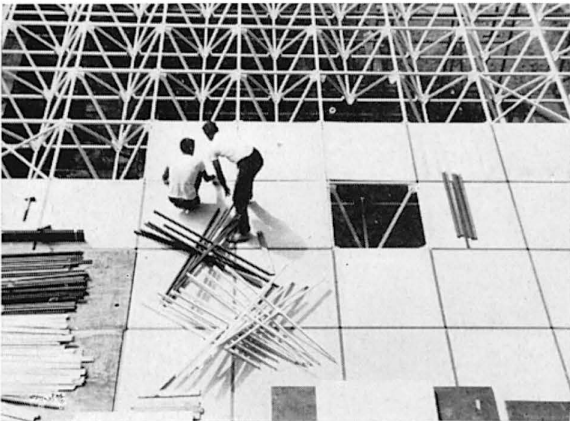
Showing lower struts of floor space frame in place, bolted directly on footings with some intermediate members in place and gravel poured below the floor frame



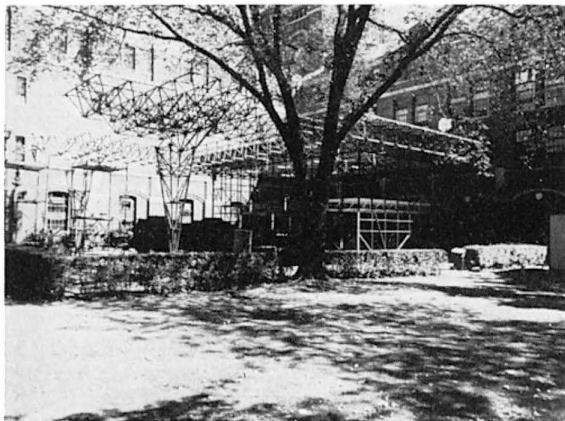
Floor frame complete and showing horizontal diagonal bracing for support of the asbestos cement flooring. Most of the vertical studs are in place and some mezzanine floor frames are installed



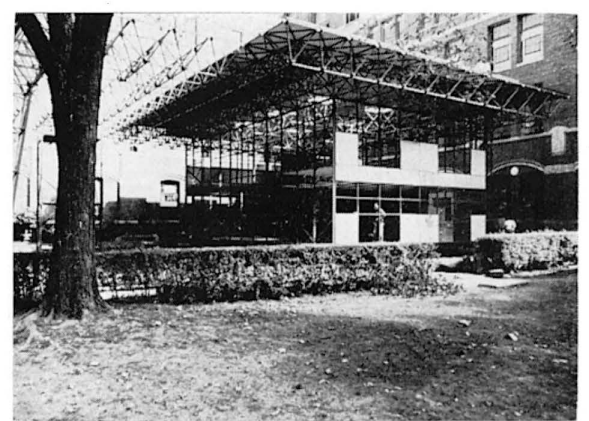
Roof framing nearly complete showing ease of assembly due to the ability to cantilever from one side to the other without heavy equipment



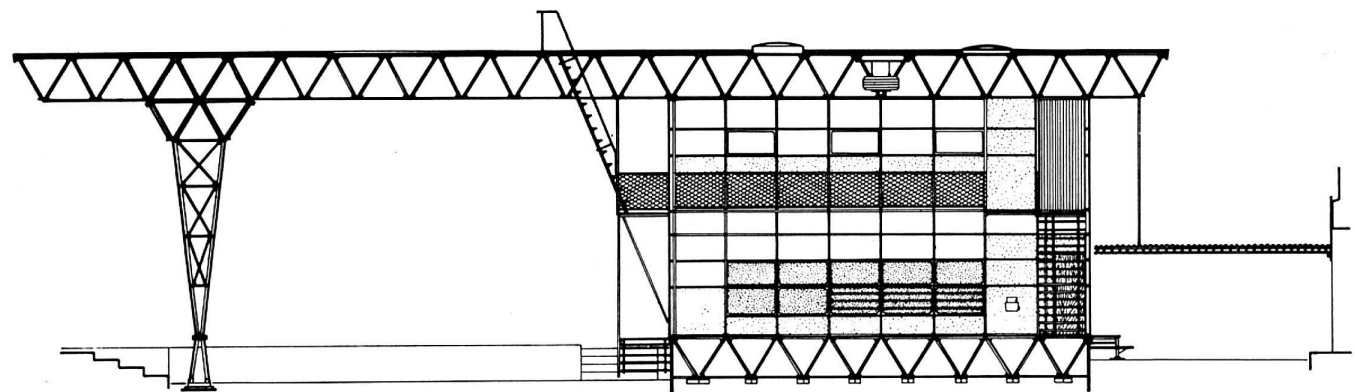
Criss-cross steel framing members are inserted in each square opening of the roof space-frame as reinforcements for the asbestos cement panels



Pre-assembled columns in place after drop-line positioned from already cantilevered overhang

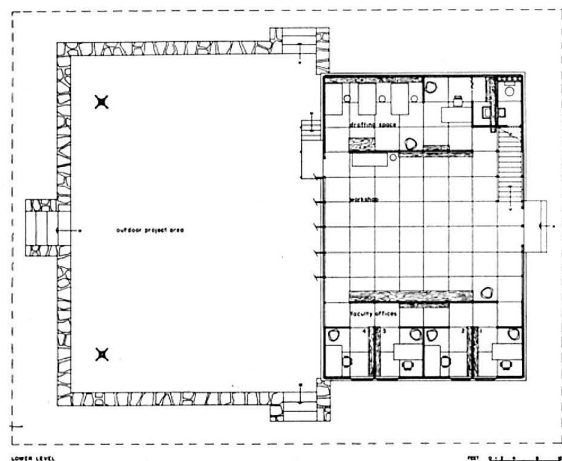


Application of exterior "skin"; asbestos cement panels are held in place by snap-on steel batten as in the roof

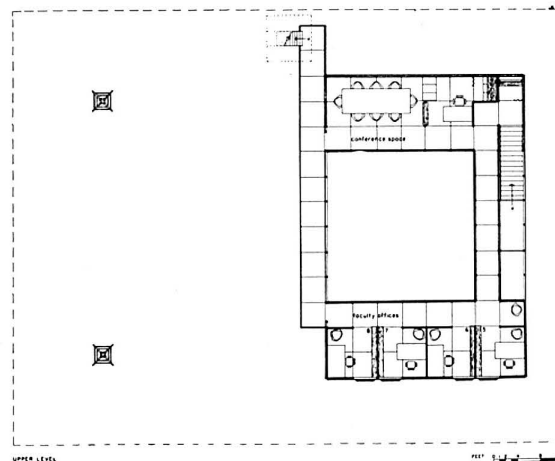


SECTION

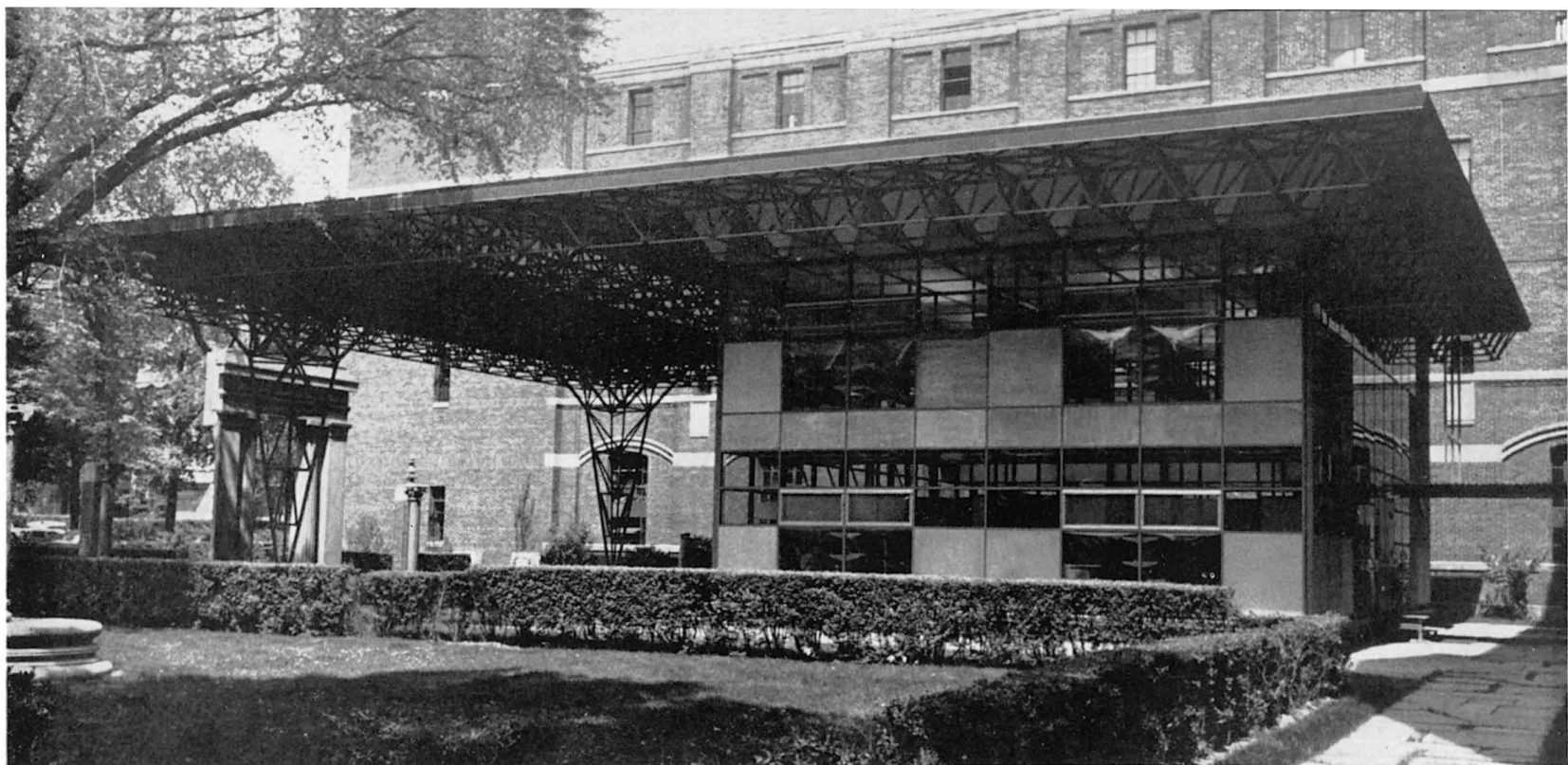
FEET : 0 2 4 8 12
MODULE 4'1"



LOWER LEVEL
MODULE 4'1"



UPPER LEVEL
MODULE 4'1"



*Entrance walk to Research Laboratory
Portico suspended from roof overhang on cast connects
with main Architecture Building*

holes stamped out of each end of each strut in the upper and lower horizontal planes and into one of the three holes in each diagonal strut. A special nut fits into the middle hole of each strut end and also into a corresponding hole in the plate, and then is fastened firmly with a bolt and washer. In effect, this design provides the equivalent of three nuts and bolts at each horizontal connection and two nuts and bolts at each diagonal connection between a strut and plate, but the workman has to apply only a single nut and bolt.

Technically, the network can be defined as "a structural framework made up of elements so arranged that the assembly cannot be analyzed as a series of two-dimensional or coplanar systems, but must be considered as an integrated or non-coplanar system, i.e., one in which the forces act in three or more directions in space."

Non-technically, the profile of a space-frame roof looks like a row of W's tipped toward the viewer, with struts extending across the top and bottom, like this: WWWWWWWWW. This profile is the same from all four sides.

The result is a network of zig-zagging steel struts that distributes stresses so effectively that it can absorb loads far in excess of the strength of its individual parts.

There are actually two space-frames in the research laboratory. One forms the roof framework, and measures 90 feet by 70 feet. The second is the floor framework, the foundation of the building, and measures 33 feet by 49 feet. The laboratory, therefore, consists of a two-story, 33 by 49-foot inclosed area sandwiched between the overhanging roof frame and the shorter, equally strong floor frame. The roof is supported by two outdoor columns and by the exterior wall studs of the inclosed area.

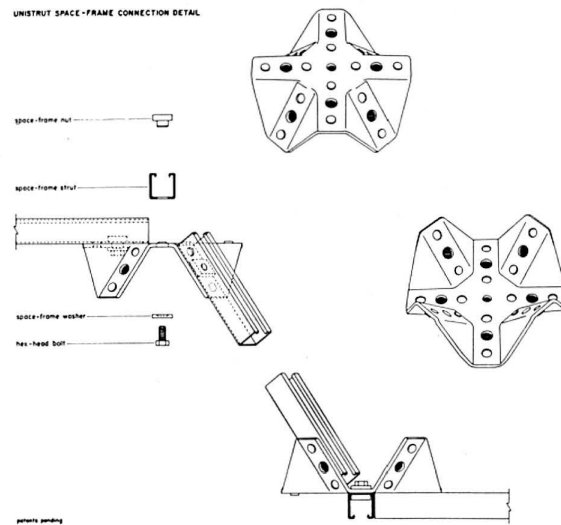
The laboratory is durable because it is made of rugged materials combined in space frames of surprising strength; it is flexible because its interior walls can be rearranged or removed with ease; it is expandable because its roof can be extended in any direction and the living area enlarged below; it is demountable because its standard parts are literally bolted or snapped together; and it is reusable because it can be unbolted, carried to another site, and reassembled to form a similar or entirely different building.

The structural system requires no permanent foundation, it can be rapidly pieced together by a few workmen using wrenches, and it costs much less than a structure of comparable size built in the conventional way.

Although it was made up of relatively simple parts, the space-frame was too complex a structure to be analyzed satisfactorily by conventional methods of computation. The research staff therefore arranged to test a series of full-scale roof frames in the field. These experiments revealed that when a critical member reaches its elastic limit, it transfers the load to neighboring members, and they in turn pass it on to other struts. The "cooperative" nature of the space-frame theory was confirmed, and the recorded data showed the system provides unusual strength in relation to its weight.

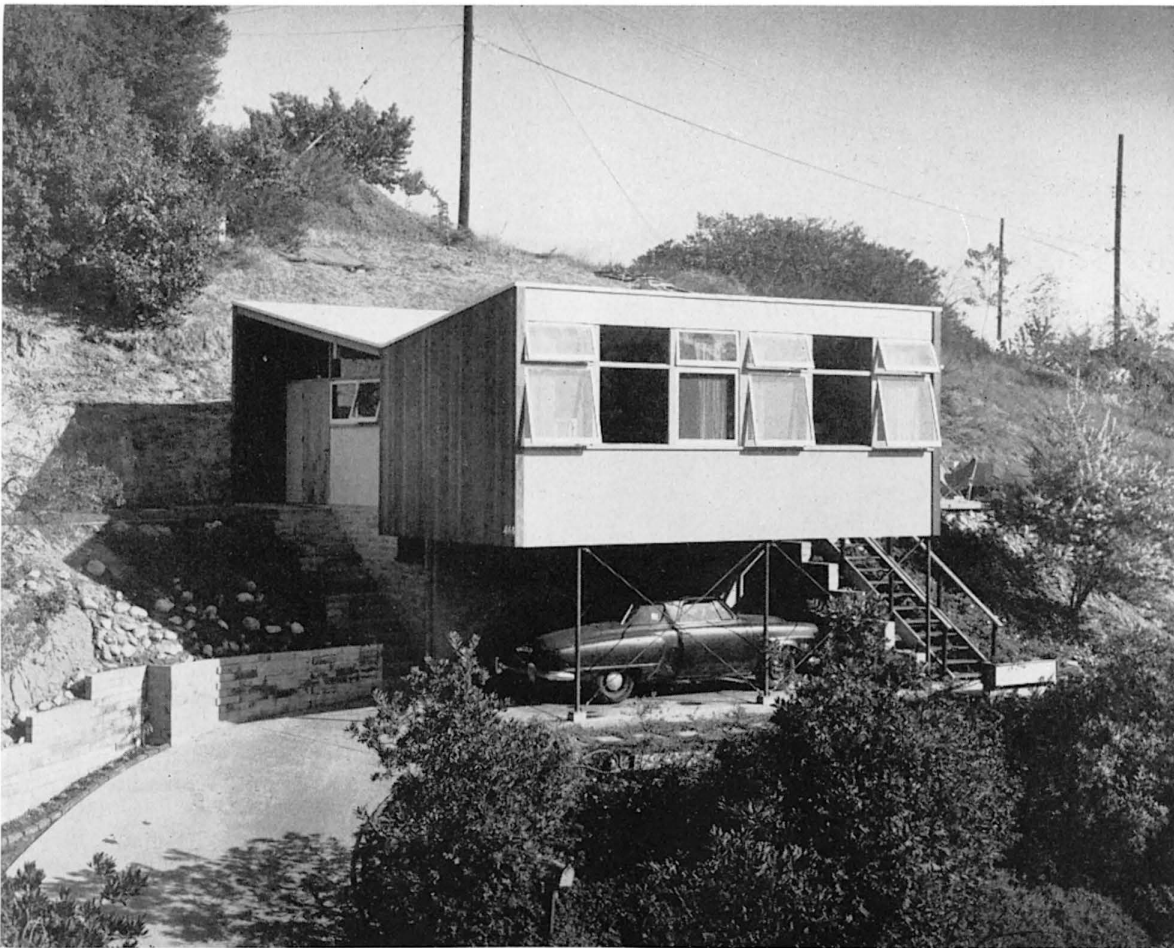
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UNISTRUT SPACE-FRAME CONNECTION DETAIL



*View of stairway and interior bridge
One ceiling panel has been left out so that
visitors can see into flux plenum*





SMALL HILLSIDE HOUSE

By James W. Larson, Architect

The site is up a quiet street in a small canyon and offers a view of the nearby hills. The view to the southwest determined the orientation of the principal rooms and the patio area.

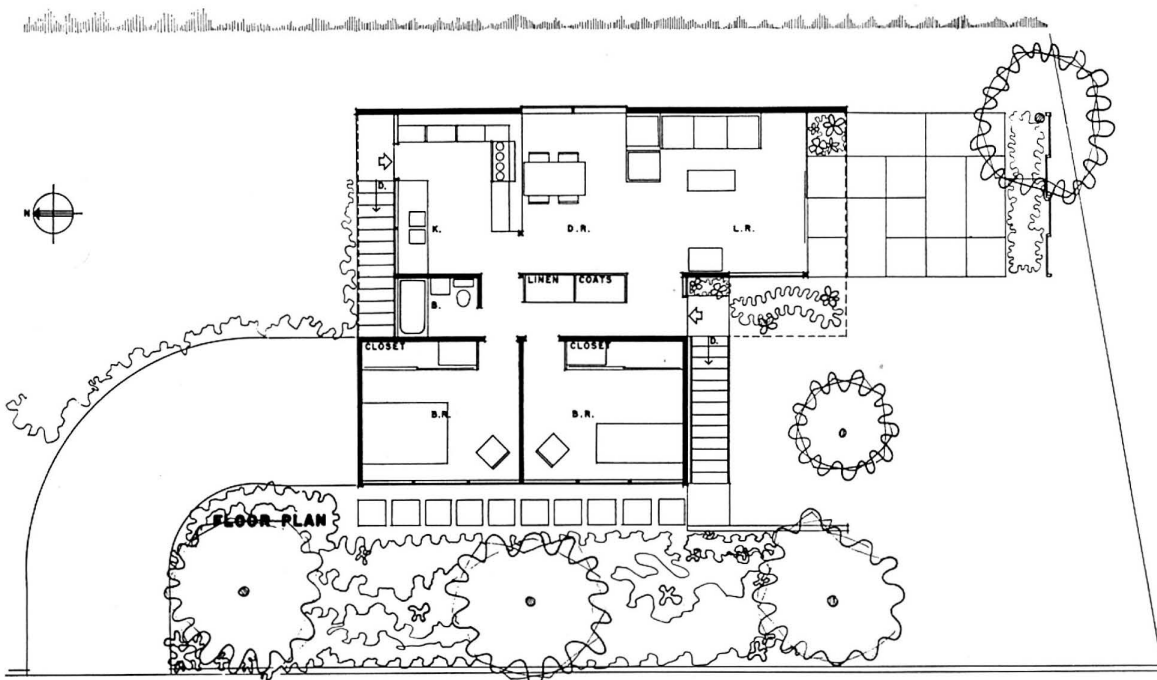
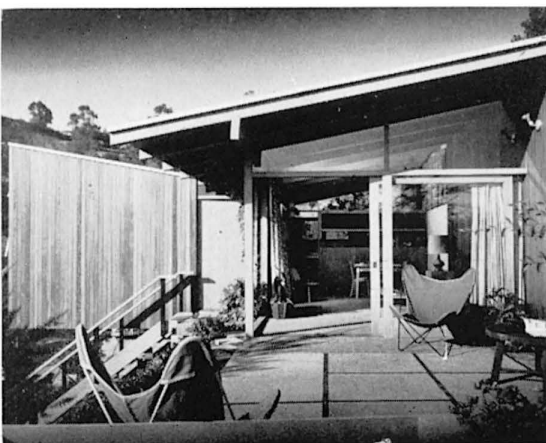
This house was designed for a family of four (two small boys) who wished to live informally. The restrictions of the sloping site led to the two-level scheme: the upper living plane anchored to the ground on the rear by a continuous footing and the front supported on light steel pipe columns. Raising the principal floor afforded uninterrupted view as well as a minimum disturbance of the site and natural growth. The carport and all the services are located in the lower level of the house.

The floor plan is a model for compactness, the large glass areas and the minimum of interior partitions give it a feeling of spaciousness beyond its actual dimensions. (The only ceiling-height partitions close off the bath room and the bedrooms.)

The living-dining-kitchen-hall area is divided only by the half-height counter-cabinet between the kitchen and dining area and by the free standing closet between the living and hall space.

The sloping roof required by the Tract Deed rules led to the interesting inverted gable roof treatment. The house is framed entirely of wood. Vertical tongue and grooved redwood siding is used alternately with Douglas Fir plywood panels for the wall surfaces on both the exterior and interior of the house. The redwood is finished with natural stain and the plywood panels are painted in the primary colors of blue and yellow. This color scheme is carried out on both interior and exterior. The blue being predominant on the interior and on the west and south exterior walls; the yellow on the east and north walls.

The exposed beam ceilings are finished in gray pigmented stain. The floors have wall to wall carpeting except the kitchen and bath, which are gray asphalt tile. Awning type sash and sliding doors are wood. The heating system is a gravity duct located in the lower level.



some thoughts on the design of nature and their implication for education:

As a student of natural philosophy it has been one of my interests to try to discover what is known, and what not known, regarding the basic design of nature. I propose to offer you a few thoughts on this topic, believing that they possess some relevance to the present discussions.

First a disclaimer. Science knows very little for certain about the fundamental design, the kind of unity which underlies all the diversity of natural phenomena. We can only be sure that we have identified the true form of this underlying unity when we can also account for all the differences that exist between one thing and another. But, to take one example, we do not yet understand the difference between an atom and an organism. We cannot specify the contrasted internal arrangements which give to each its characteristic properties. On such basic issues science is still ignorant, and it is important to recognize this fact. For it means that on fundamental matters there is no excuse for dogmatism. There is still ample scope for experiment, speculation, and discovery. All the current orthodoxies must be wrong somewhere.

This caution regarding what is already known may be balanced by a reassurance concerning what can be known. Science is not merely an endless progress from one approximation to another. The complexity of nature is in certain respects finite, and some discoveries are final. For example, around 1880 it was proved that there exist precisely 230 different possible types of crystal structure, and all of these are found in nature. That chapter of mathematical physics is closed; there we already possess absolute knowledge of one aspect of the design of nature. The point is that the design is not infinitely complex; there are simple aspects accessible to discovery, where final understanding can be attained. Crystals came first, probably because their ideal structure displays perfect symmetry and is static. One day we may possess similar understanding of the necessary process structure of organisms, and then another chapter will be closed.

But where are we in 1955? What can physics, for example, say, however tentatively, about the general design? Here one fact stands out. The doctrine of atomism has been very successful. Material nature behaves as though it were made up of ultimate particles of finite magnitude, endowed with certain measureable properties. The physicist may therefore be inclined to say that the design of nature is the summation of the motions of all the ultimate particles, the stress being put on the properties of the single particles, which govern their movements. This is a clear idea, which has proved very powerful.

However, it is a significant fact that while the particle physicist has been stressing the single ultimate constituents, exact scientists in many other branches have been increasingly concerned with the collective properties of complex systems containing many entities, and have found themselves emphasizing the importance of symmetry, structure, pattern, order, organization, form. Thus there are two poles in exact science, perhaps illustrated best by the extreme cases of random atomic motions and of absolute geometrical symmetry. Yet these extremes do not exhaust the design; they dominate current theories merely because science has learned how to deal with them first.

For between these poles lies the vast realm where there is neither complete disorder nor perfect symmetry, but incomplete order, or a latent order seeking to develop. In this more complex realm order is obstructed by imperfections, asymmetries, contrasts, and tensions

which seem to generate change and transformation. This is the world of real process, of developing order, of growth, of life, and of mind, to which the attention of scientists is now increasingly drawn.

It is interesting to note that here the intuitive mind of the artist may have anticipated a development in exact science. For the dissonances and tensions of the painting and music of recent decades surely express the elan of asymmetry, the imperfections, differences, and tensions which initiate the movement towards a more perfect and stable form. The classical ideal of a static perfection or harmony is being complemented by a deeper recognition of the real disharmonies which provoke change and growth. And traditional atomism, with its primary emphasis on the properties of the single particle, may have tended to hinder recognition of the formative process which characterizes systems as a whole.

For several decades there has been this increasing awareness in many fields of intellectual and practical activity that the determining factor in any situation is a *system of relations*. The earlier traditional emphasis on the properties or inherent characteristics of single entities has faded, because it has been realized that the entity may display different characteristics in different situations. Thus it is often, if not always, the total structure of relations which is decisive. This means that the laws which determine what happens may refer to systems as a whole, not to the properties of single constituents. The design of nature may not be a summation of individual movements but a changing pattern of partly ordered relationships.

But this emphasis on complex systems treated as units remains a mere preference for a particular kind of method, empty of all constructive content, until some suggestion has been made regarding the specific laws that describe the behavior of systems. For example, we can ask what advantages, if any, can be gained from the assumption that form is a more fundamental concept than motion, and that certain classes of systems move towards states of higher form or symmetry, i.e., that a formative process is widespread in nature? And in this context I mean what advantages for philosophy, for the unity of knowledge, and therefore for education?

One of the great needs in education is for a method of approach which brings the vast range of contemporary knowledge into some kind of order, so that the mind is not intimidated and confused. More particularly, we need a view of nature which gives the imagination its proper status, and so promotes its development. The standardization and mechanization of life can only be compensated by a view which gives new authority to the individual imagination. Such a view would also throw light on the relations of scientific and aesthetic activity. I suggest that the idea of a formative process has something to offer here.

In an age of science how can a balanced culture survive unless science recognizes the central role of the creative imagination both in the life of the individual and in the history of the race? Human thought is not based on mere computation, as some apostles of the "electronic brain" seem to suggest. *Thought is the ordering of experience*, and science cannot recognize the supreme faculty of the human mind until it has paid more attention to ordering processes in the rest of nature.

But if we accept, as a provisional working hypothesis, the idea that formative or ordering processes play a central part in the design of nature, then the human imagination acquires the power and

lancelot law whyte

dignity which are proper to it as the expression of a natural principle, for then every human being must in some degree share in this faculty. We have outgrown the question: who designed the universe? But we can turn it round and ask instead: What general design must nature possess if the appearance in it of human minds is not to remain an arbitrary mystery? The answer is simple: the root character of all thought, its ordering property, must be shared by inanimate and animate nature. This working assumption, if it proves to be valid, can provide the kind of moral comfort, or organic reassurance, which our age badly needs.

Let us pursue this idea further, as an experiment in thought. In a universe of formative processes, what is the organism? A system in which these formative processes maintain, develop, and extend the pattern of the system. Biological organization is an arrangement such that all the components necessarily interact and cooperate so as to sustain and develop the general pattern, provided that the disturbances are not excessive. The task of structural biology is to discover how this formative process works in detail.

And what is man? Amongst other things, he is an organism endowed with a multiple organ, the brain, supported by the senses and the glands, in which the formative property of organic processes is applied to the memory records of experience. The brain orders its own records, and all mental processes express this basic activity. Art and science, philosophy and religion, engineering and medicine, indeed all cultural activities are based on the ordering of experience and the exploitation of the resulting design.

But what attracts the attention of man and holds his interest? Surely those elements in the environment where the ordering process has already been at work. The more random and chaotic anything is, the less likely are we to notice it. On the other hand, high order and elegance, unexpected symmetry, satisfactory organization draw the attention of our senses and hold the mind, even if our sophisticated twentieth century minds appreciate a residual asymmetry which leaves some work still to be done! The elegant ordering may emerge in external nature or in our own unconscious mental processes; wherever it arises it seizes our attention, as external perception or imaginative intuition.

The common source of aesthetic and scientific activity lies at this fundamental level. I deliberately avoid the misleading terms, 'science' and 'art.' Aesthetic spontaneous components and deliberate systematic components are both present in nearly all human activities. The artist requires training, skill, and knowledge. The scientist needs imagination and a non-rational belief in the possibility of discovering simple laws. When we try to isolate two great realms of cultural activity and call them 'science' and 'art,' we confuse many issues, by suggesting that the scientist only employs scientific methods and the artist only aesthetic.

It has recently been suggested that there is no general distinction between man-made artistic forms and natural organic forms. This is misleading, for the activity of the human creative imagination is a highly differentiated form of the general ordering processes of organic nature. The formative processes of the organism order the material constituents of the organism, while the ordering processes of the imagination order the brain records of the experience of the individual (that is, if we neglect the possibility of a collective unconscious).

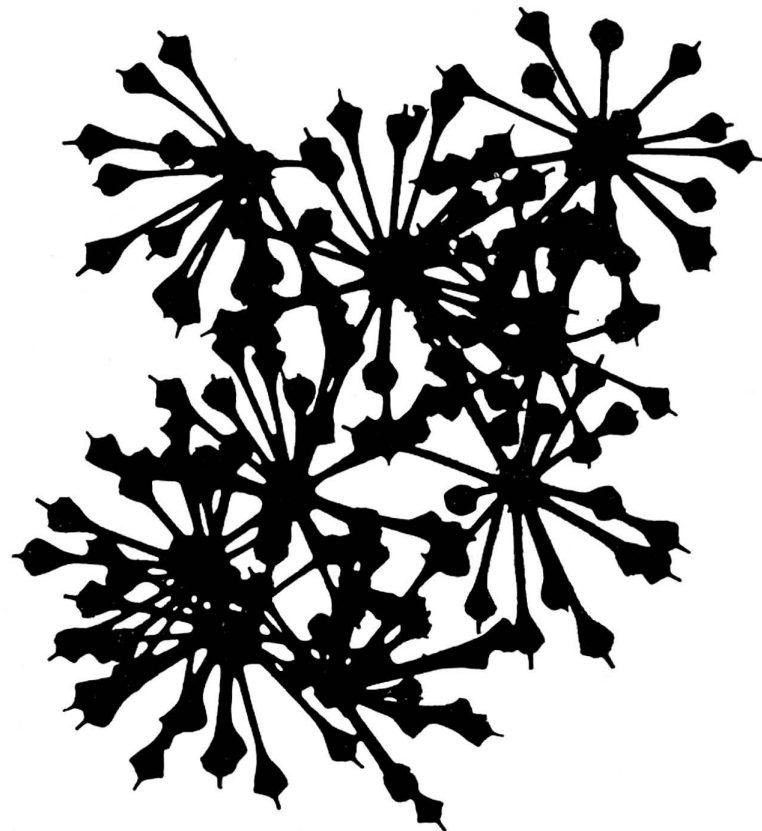
We still have to discover how it was that anthropoid and human brains could evolve in a universe that once contained no life at all.

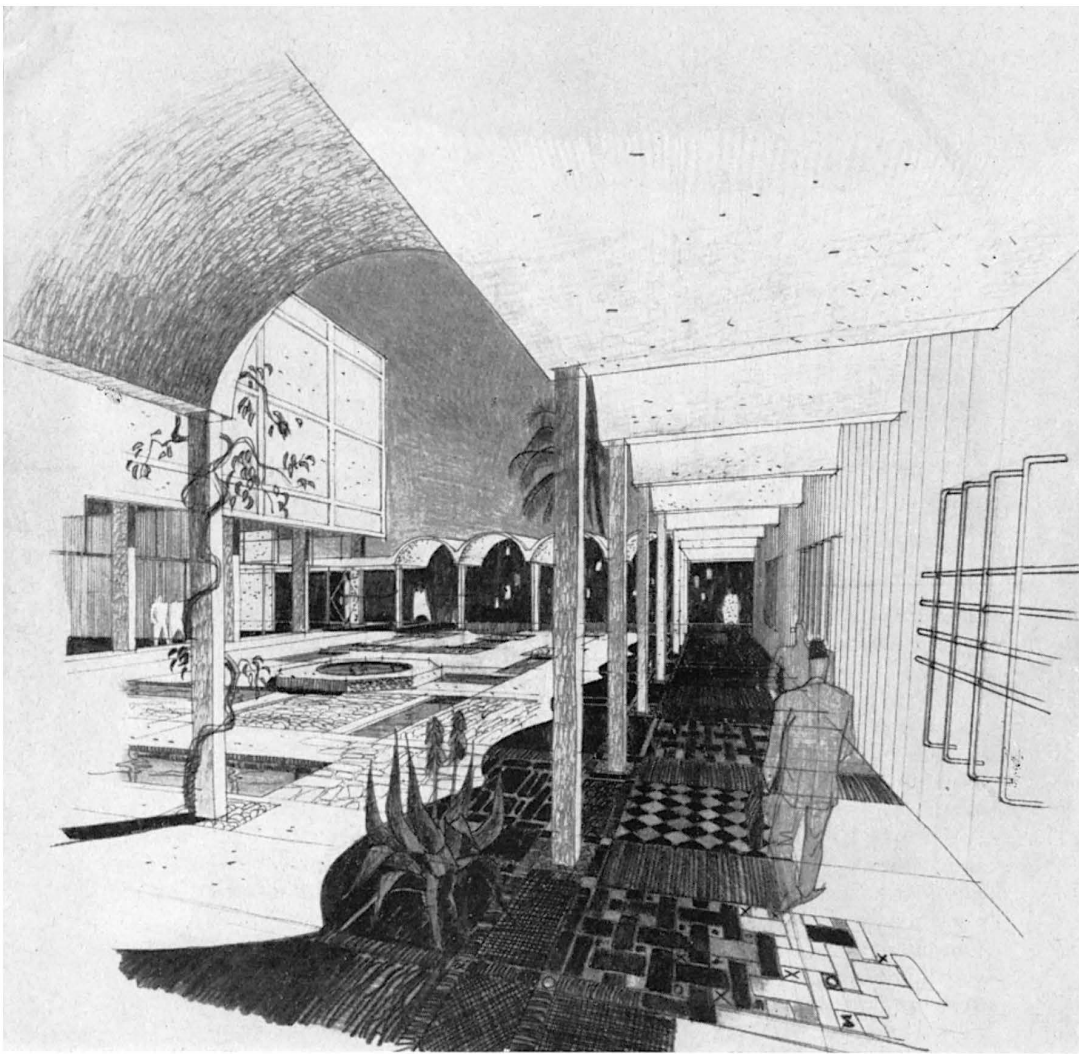
Somehow the developing design of nature led to the human designer.

That extraordinary fact has not yet been taken sufficiently seriously. For it implies that no scientific doctrine can claim general authority until it can show how a species capable of religion, aesthetic, and scientific activity came into existence. Atomic physics remains tentative and restricted, and cannot claim all nature for its realm, until that has been done. The design of nature must be much subtler and richer than has yet been imagined.

We may be on the eve of advance in exact science throwing light on all these problems. There has been no great advance for twenty-five years in basic physical principles, and the complexity of the present picture offers a magnificent challenge to the unifying mind. The current view is that physics proceeds by increasing abstraction and therefore becomes progressively more difficult. This interpretation may be wrong. My belief and hope is that through some enriched concept of form and formative process, fundamental principles may acquire a new immediacy, clarity, and human meaning.

We must be patient if we allow ourselves to dream of things to come. The movement of history is intensely dramatic, but very slow. Fifty years is an episode in the history of ideas or of design. Let me remind you that it is now that length of time since Sullivan wrote "Form follows function." Perhaps it is now time that designers took a hint from the organism and showed how *function develops form*. So I end with a question put to this Conference: "What articles can you produce which improve with use, like our own muscles?" That would be taking a hint from the design of organic nature.



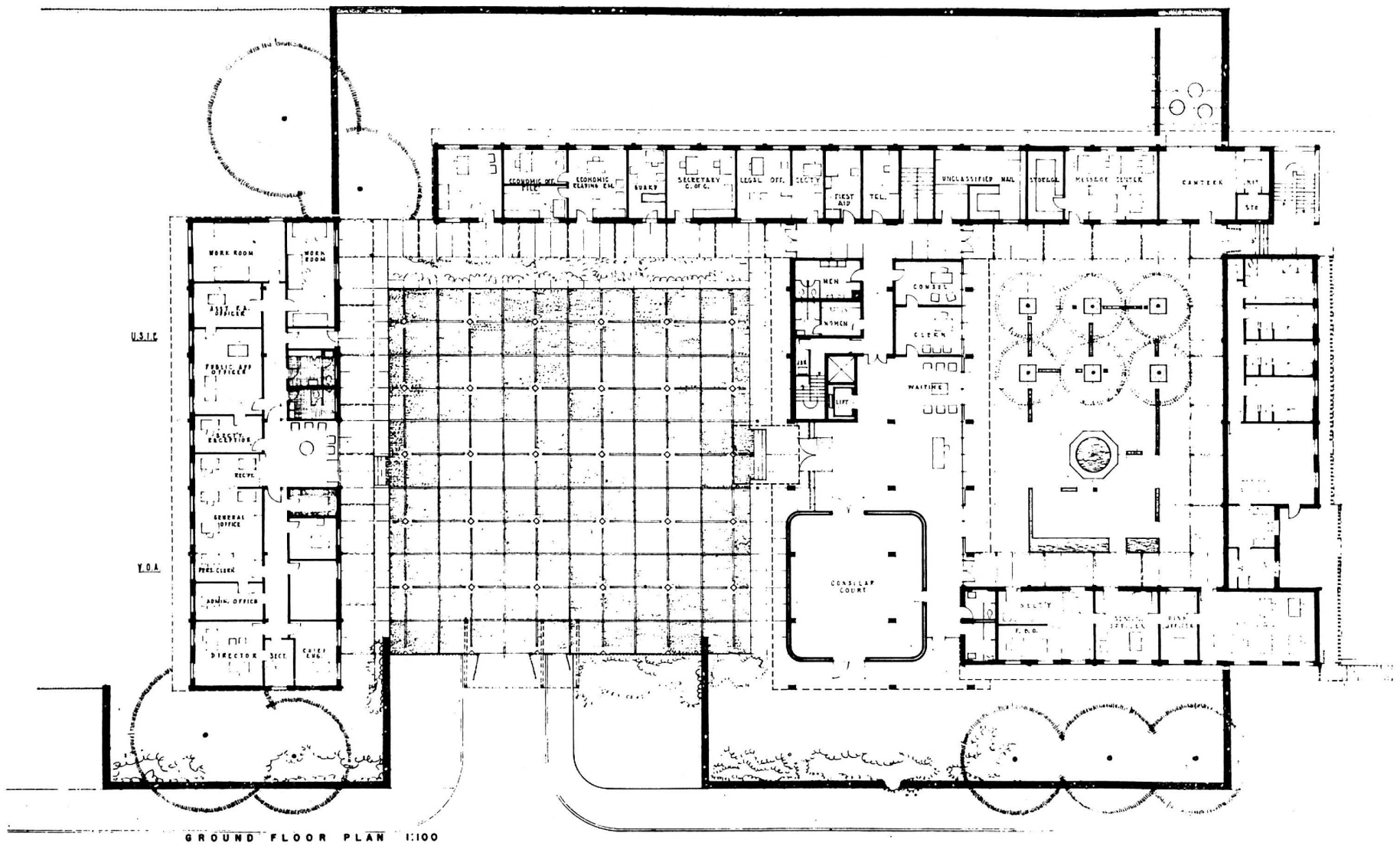


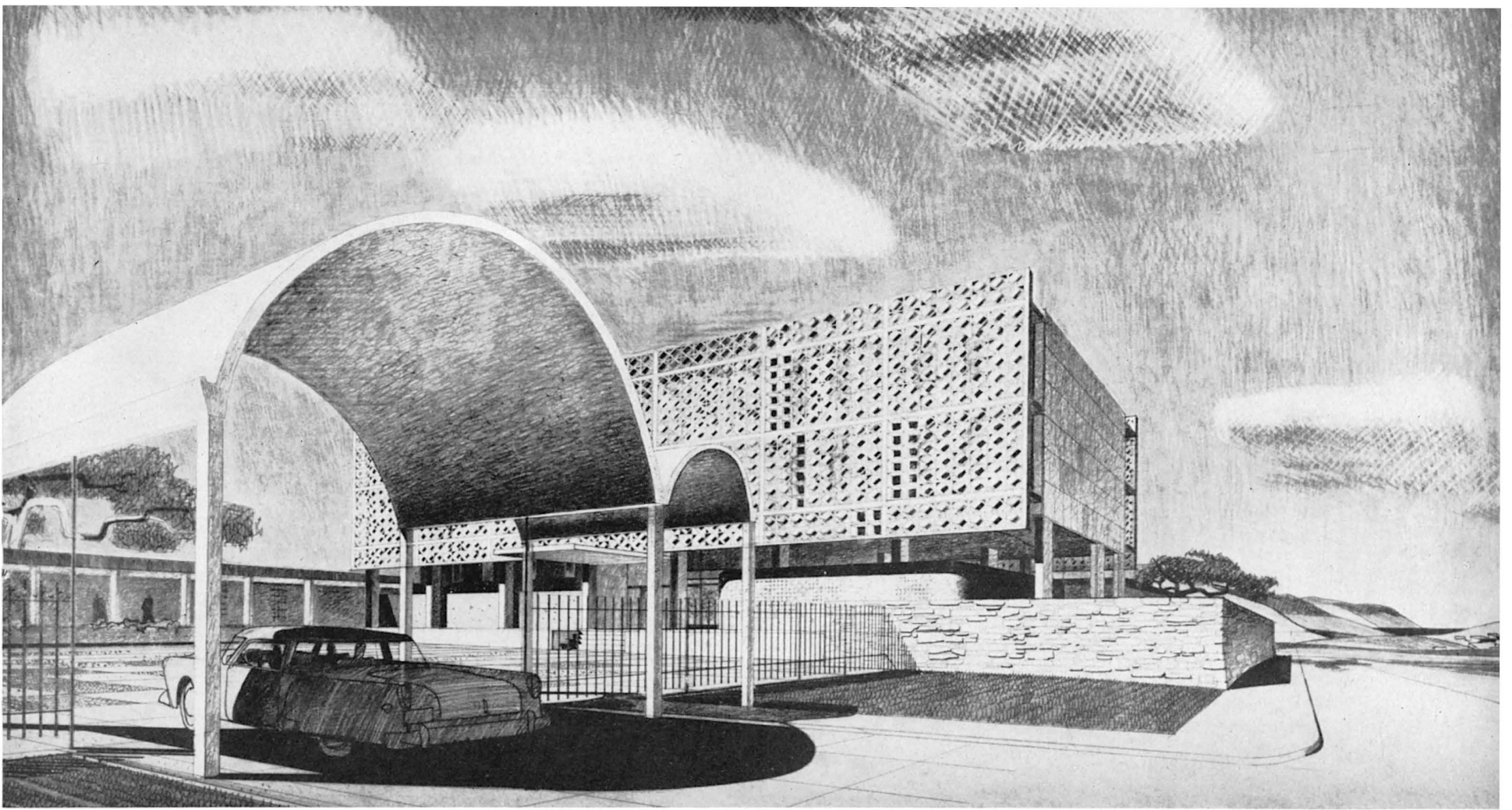
UNITED STATES LEGATION IN TANGIER

BY

HUGH STUBBINS ASSOCIATES, ARCHITECTS

Fred S. Dubin Associates, consulting engineers





This structure, occupying approximately the center of a one-and-one-half-acre site, will be inturned from the street, protecting the activities within from traffic, and street heat and glare. This will provide protection for security reasons as well as a means for properly channeling guests and visitors.

Within the enclosed complex, focus is centered between an entrance court and enclosed patio on a three-story rectangular building with marble facings on either end.

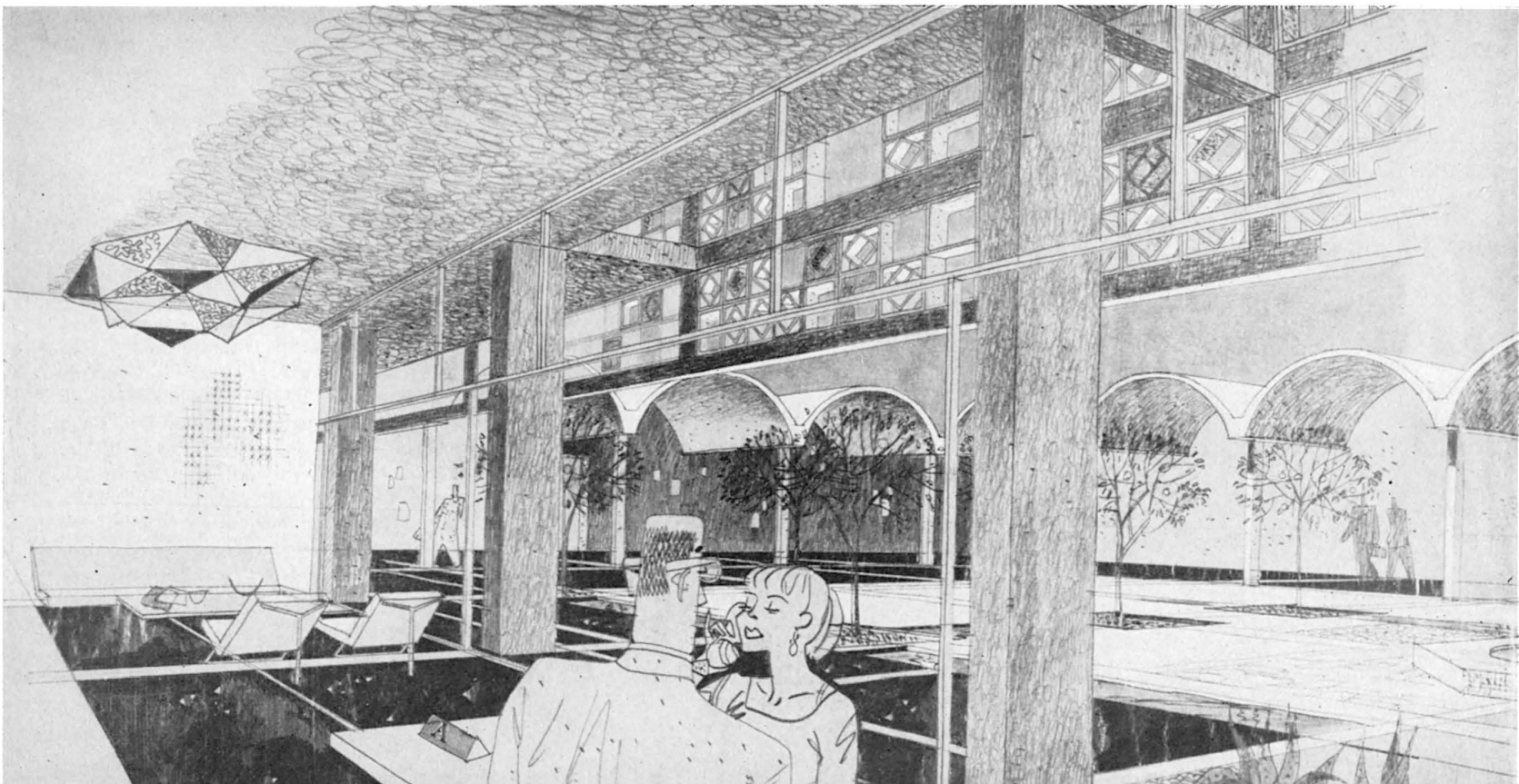
In view of the intensity of light and unrelenting glare, the sunscreen, made of precast concrete blocks supported by cantilevered floor slabs, acts as a large pair of dark glasses through which air passes freely, covers east and west sides of the central block, and

gives the building its distinguishing character.

This central block on the first floor encompasses the consular court, the reception lobby and the consul's office. Above this, set off from the public, lies the office of the minister and his staff in a space which dominates the complex and gives added security. Other wings include the Voice of America and U. S. Information Service, legation administrative offices; marine barracks; economic advisor and library.

Open arcades in the patio shade the office blocks and provide outside circulation without loss of office privacy.

No air conditioning is required in the comfortable Tangier climate. Ample cross ventilation is achieved by the open planning of the wings and inner court.





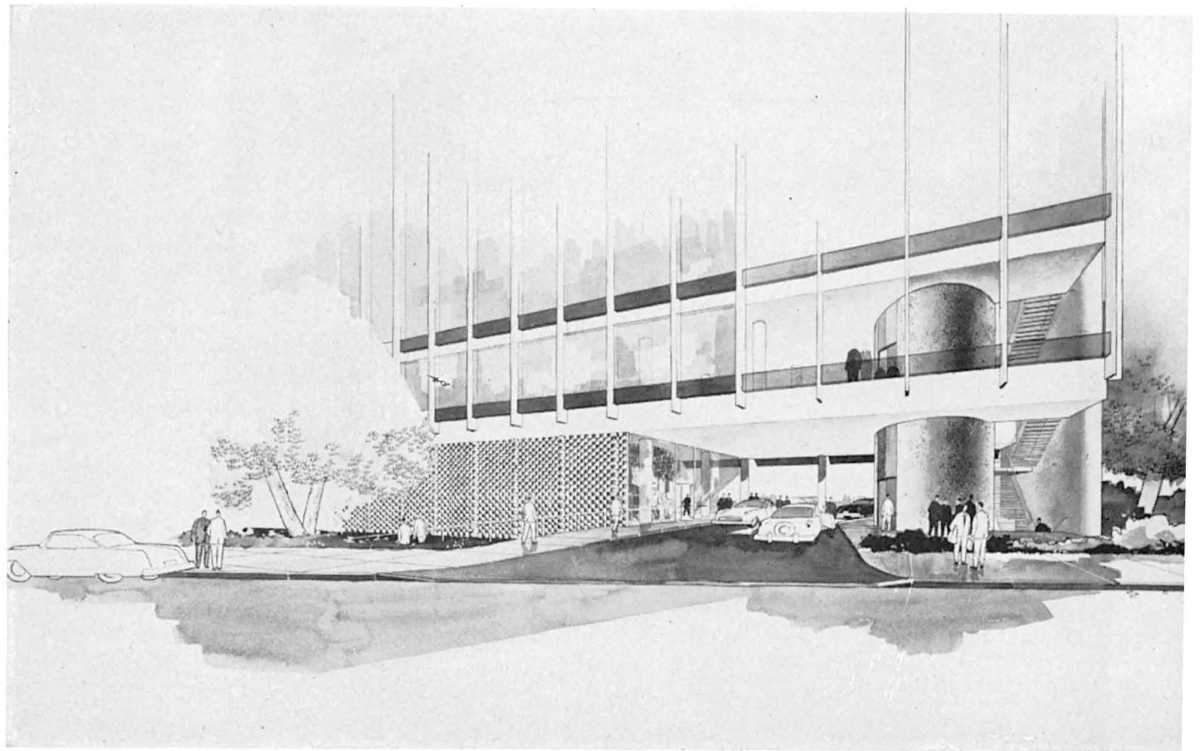
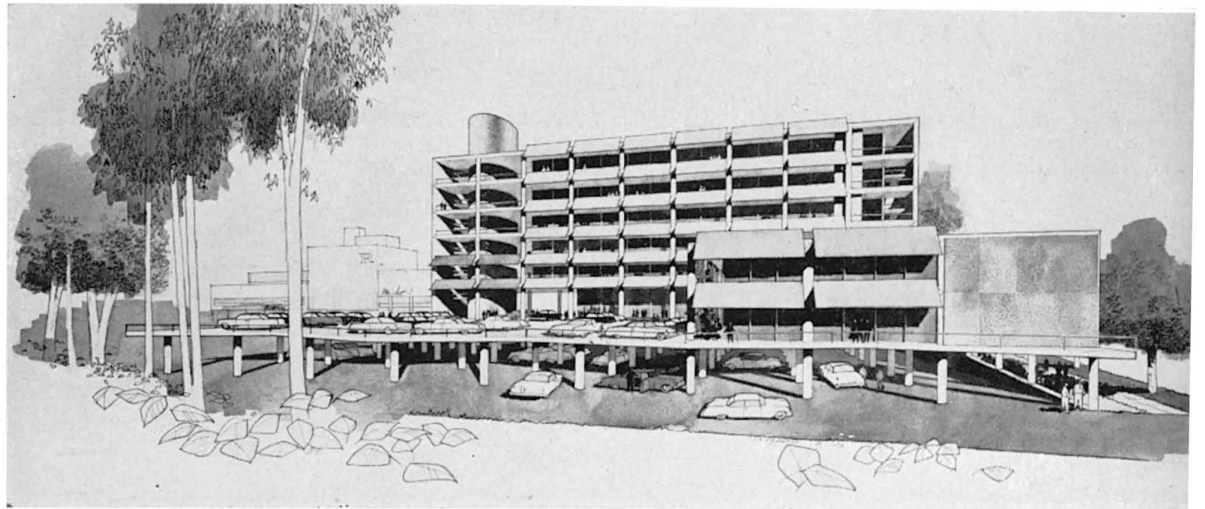
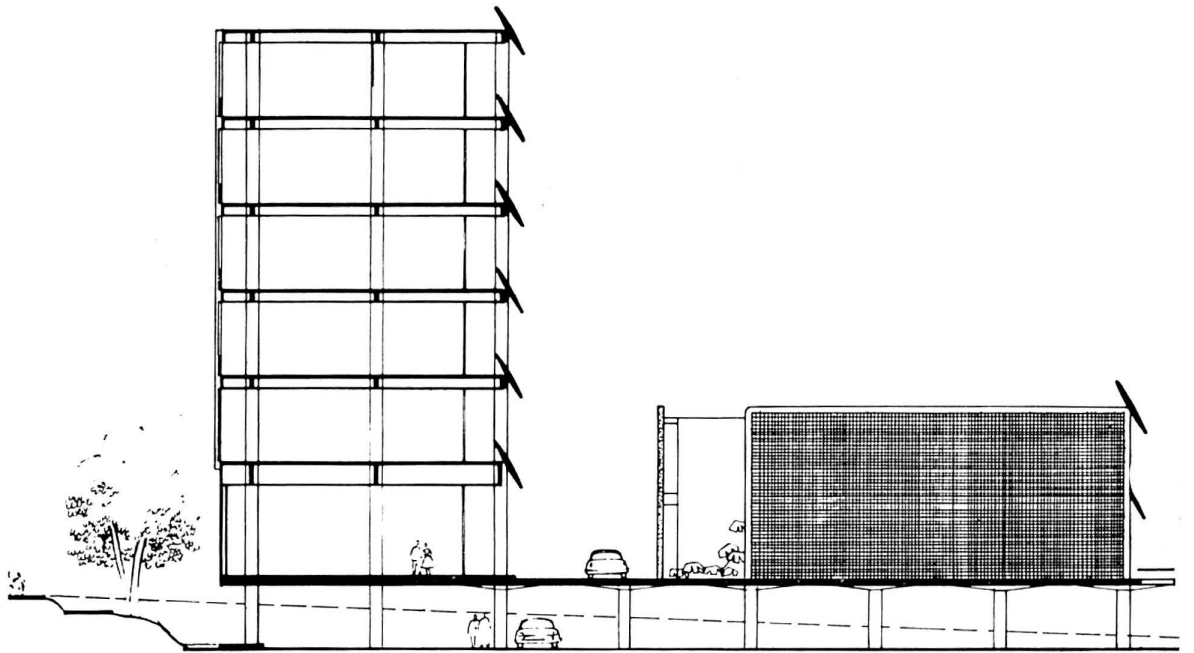
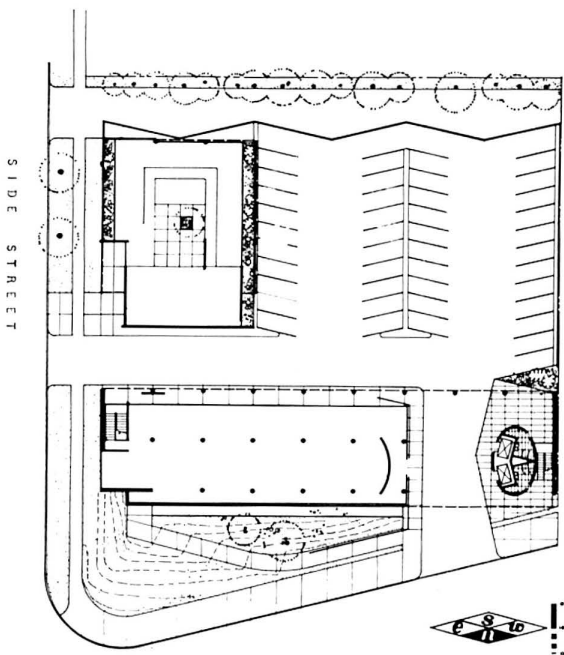
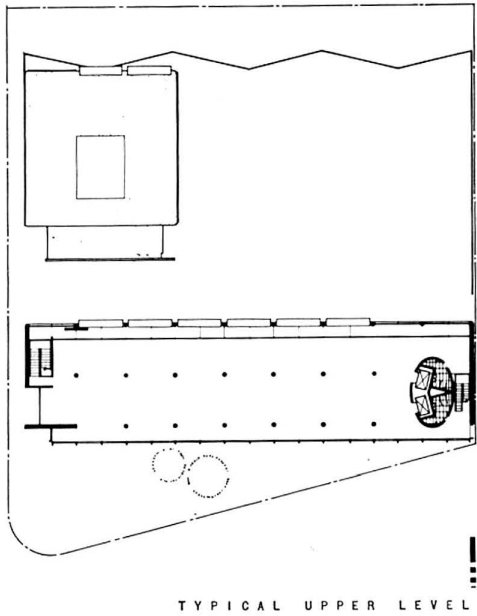
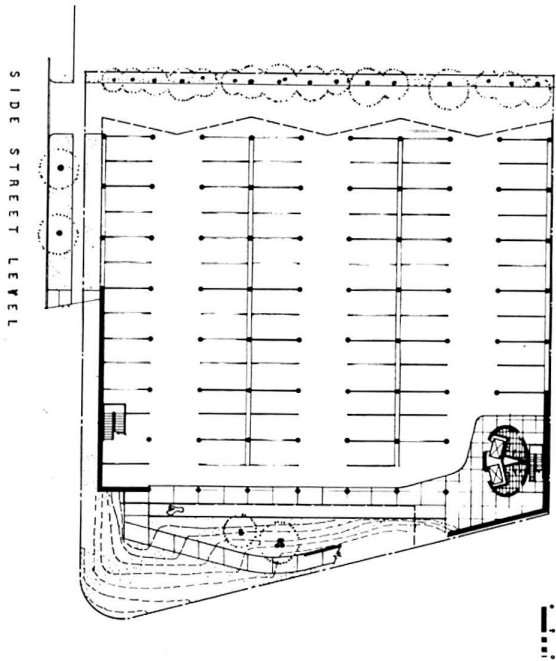
OFFICE BUILDING

By William Sutherland Beckett, Architect

The client, a long-established institution, required approximately 7000 square feet on the main floor. Two additional floors were already spoken for. Therefore, the problem was to design a typical floor for leasing to a single tenant with reception opening directly off the elevator; and, or subdividing the floor for several tenants; such flexibility being required for an internal break-up of space.

Except as indicated on the plans, the entire property is parking, completely covered with a parking deck on which the building sits.

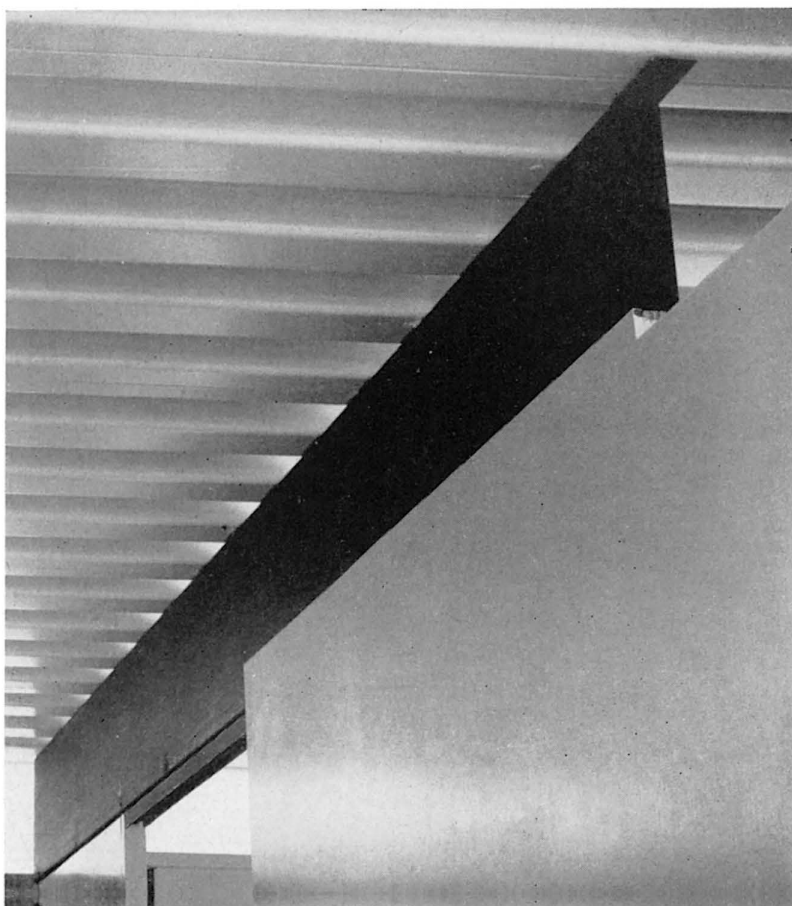
The building was set back from the principal boulevard and related with respect to the approaches. Because of the property line contours, the entire front of the building floats parallel to the main artery from which an automobile bridge cuts through at the building and connects to the upper level. There is a foot ramp down through the garden a floor below the lower level parking. The elevators are at the right of the unloading area. They are in an elliptical tower which is the vertical mechanical core for the entire building. To the left is the main entrance to the lobby of the client's offices. The screen of the main floor, made of stainless steel pillows, 50% open and 50% solid, shields the business offices from the heavily traveled main artery. The entire vertical face of this side has stainless steel fins rising from the second floor to the top of the building on a 10-foot module, between which, applied to the outside face of the structure, are prefabricated panels to a height of 8" above the desk tops, with fixed glass above, set flush with the face. On the south side, the prefabricated panels form simultaneously the railings for the balcony as well as the calculated sun control at each floor. The elliptical tower and the stair well are designed to take the major part of the lateral forces, thus reducing the stresses in the steel framework. The skin is composed of basically lightweight concrete. The entire building will be air-cooled.





STEEL FRAME HOUSE BY RAPHAEL S. SORIANO, ARCHITECT

This project is a development for Eichler Homes, Inc.

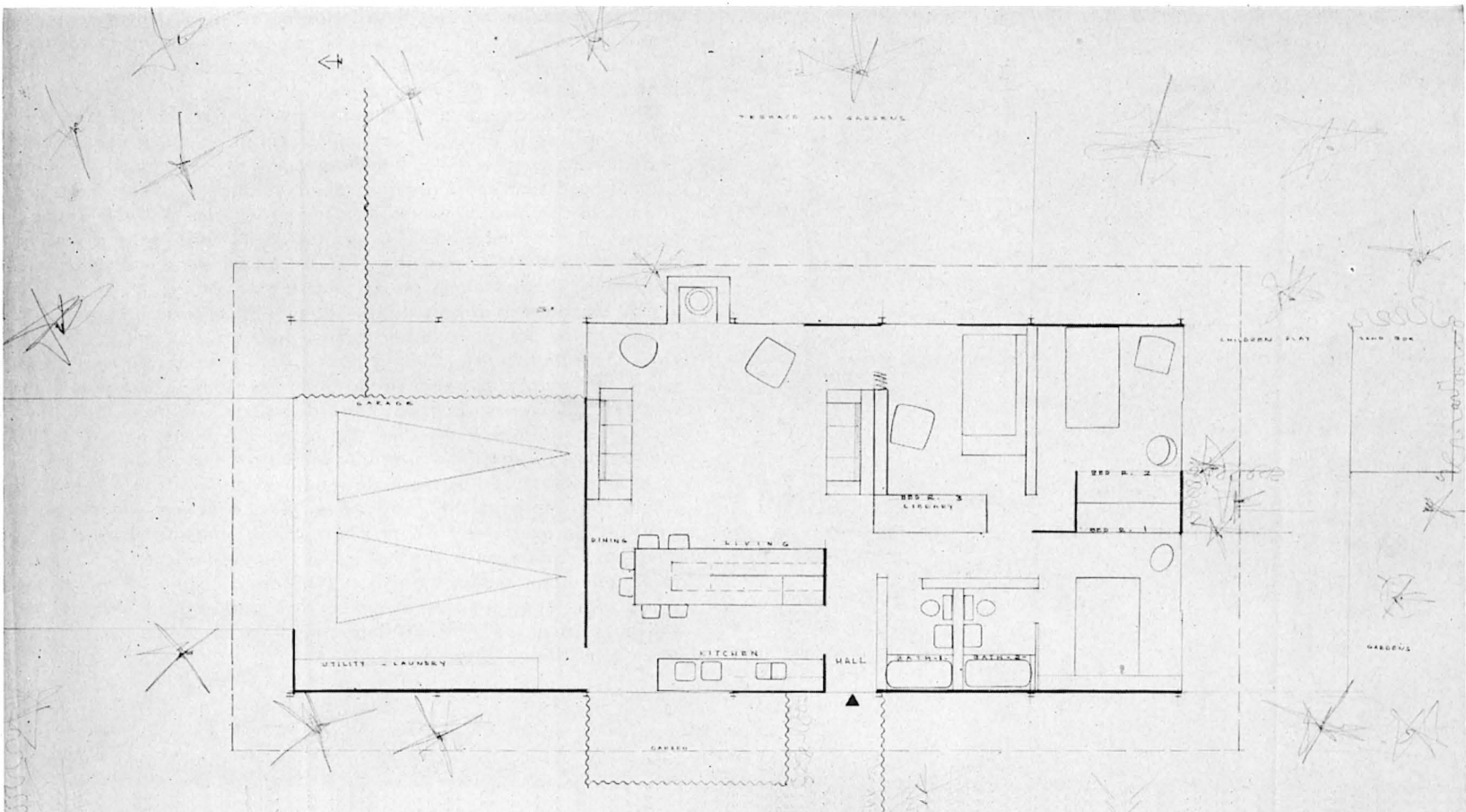


Project: A house that could be mass produced at the comparative price of wood structures; to design in steel with maximum efficiency and livability, using not more than 1000 sq. feet of living area, plus a two-car garage, on a lot 60'x100' for a tract housing development. The most disciplined structure and detailing of all the component parts was the most necessary consideration. Home builders have not yet fully discovered steel's tremendous flexibility and its time-saving potential. It is a medium in which the builder must have competent professional assistance to realize the greatest value. Here, we enter into a new phase of building industry in housing in which the details must be as meticulously planned as the details of a multi-story steel building, requiring not the haphazard concoction of timber and nails but a precise, well-detailed structure with a developed analysis of its component parts.

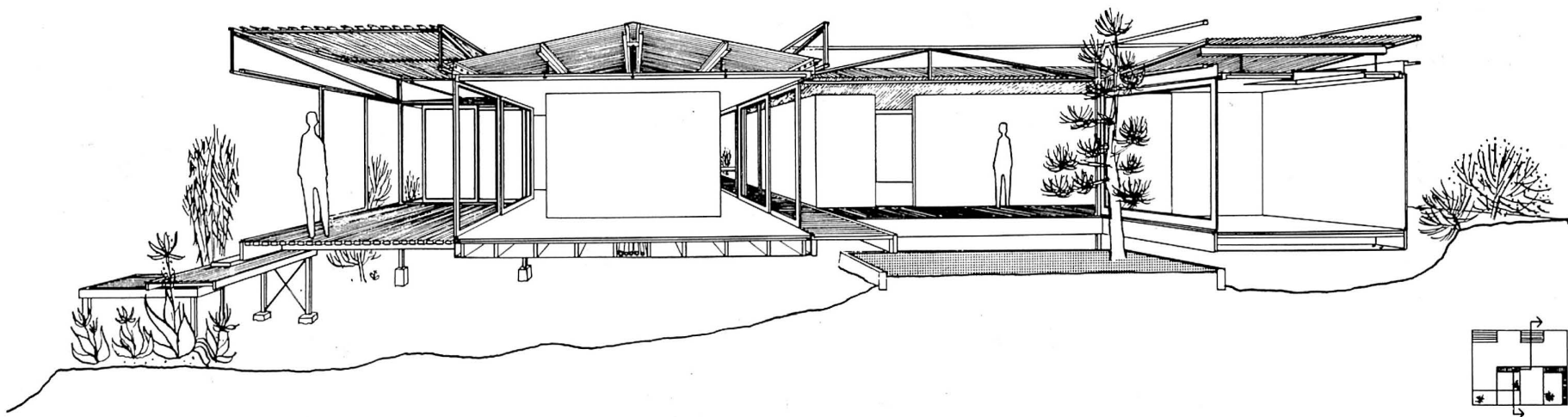
In designing a house to meet the needs of a broad mass market, it was necessary to solve the problem in terms of three bedrooms with two full baths within the 1000 feet requirements. Large, pre-assembled parts seemed to be the answer. It was necessary to think in terms of mass fabrication by efficient machinery, welding of columns and beams electrically, storage walls made and preassembled in the cabinet shop, glass sliding doors bolted to their precise place, solid panels and exterior non-transparent walls keyed into their steel angles which have been preassembled with the frame; the frame consisting of steel H beams and columns fabricated as one unit on a precise modular system, steel decking spanning between beams to make the roof as well as the finished ceiling.

(Continued on Page 30)

PHOTOGRAPHS BY ERNEST BRAUN



PROJECT IN STEEL BY MICHAEL BRAWNE



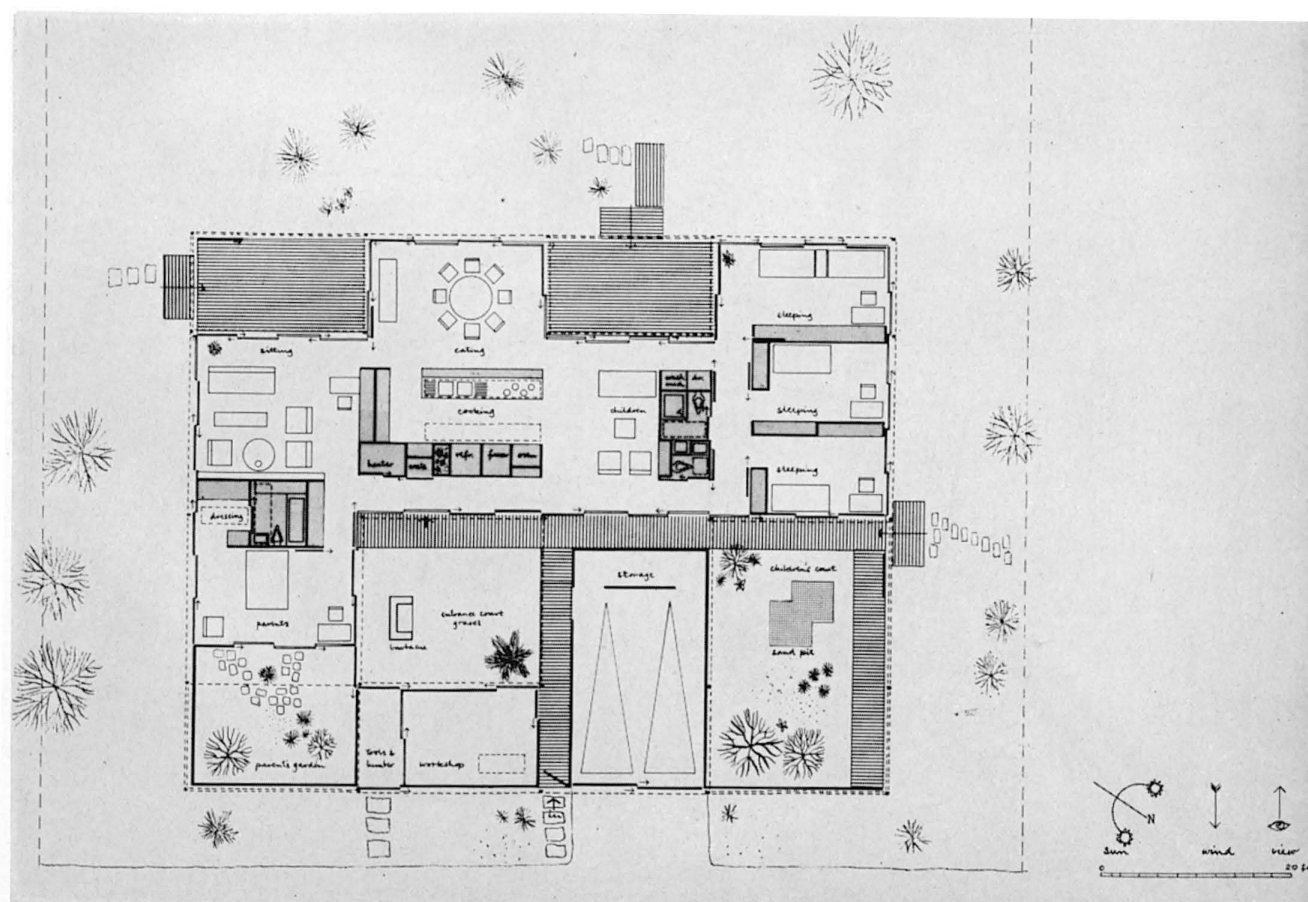
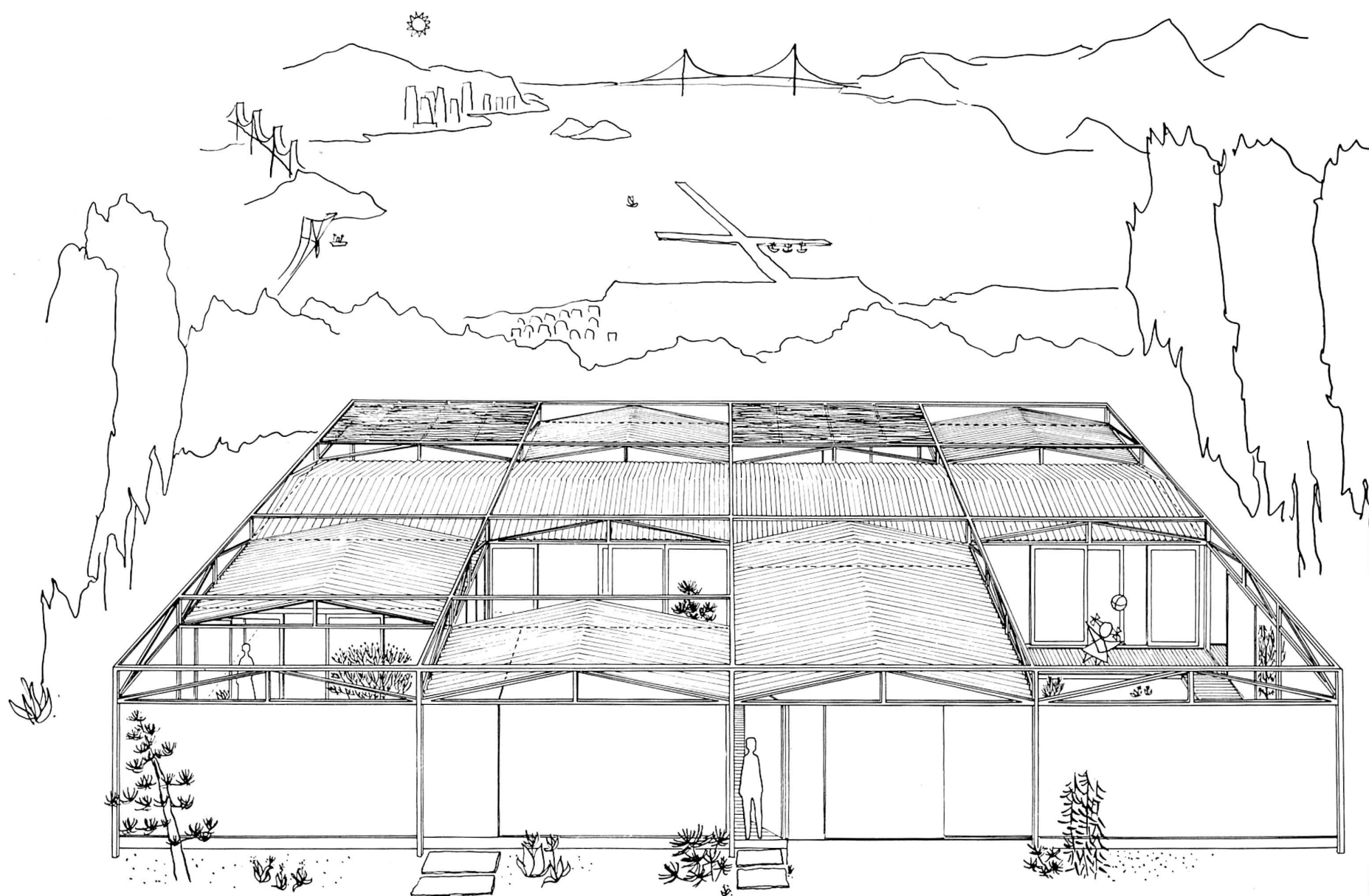
*Note: This is a postscript to the article,
 "The production of shelter,"
 in our September, 1955, issue,
 which described a developed building vocabulary
 which is now applied in the project shown.*

This house, designed for a research chemist and his family, is situated on a sloping site, high in the Berkeley hills, overlooking San Francisco Bay. The intention was to provide a wide variety of spaces in terms of use and spatial feeling, and to use simple industrially produced parts in the construction.

The house can be divided into three distinct sections: a central family space; a children's sleeping wing; an adult's area. Each section has its own toilet facilities and its own closed circulation. Cores of sufficient mass provide sound isolation between these areas. The house can also, however, be used as a series of freely connected spaces. It can, moreover, be opened in its entirety to a variety of outdoor areas—totally enclosed courts, a partially enclosed children's play court, shaded decks poised above the view.

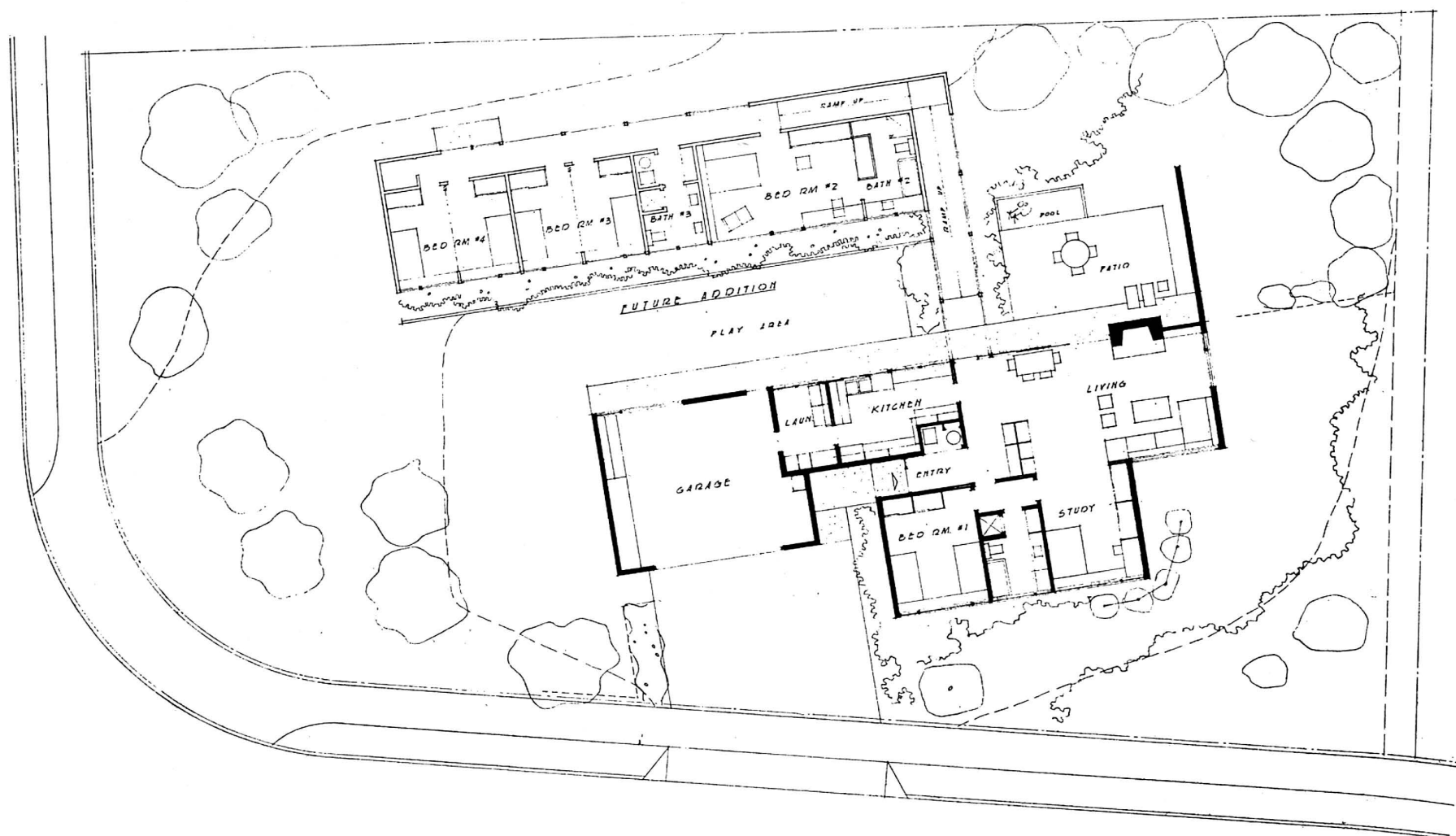
The climate has strong daily, rather than seasonal, changes. The middle of the day is warm and sunny, the mornings and late evenings cool and often foggy. Sliding doors, both transparent and opaque, allow for equally marked changes in the relation between interior and exterior spaces. Some of these doors can also be pushed beyond the corner of the rooms and slid along the edge of the decks to provide windbreaks and partially enclose these shaded areas.

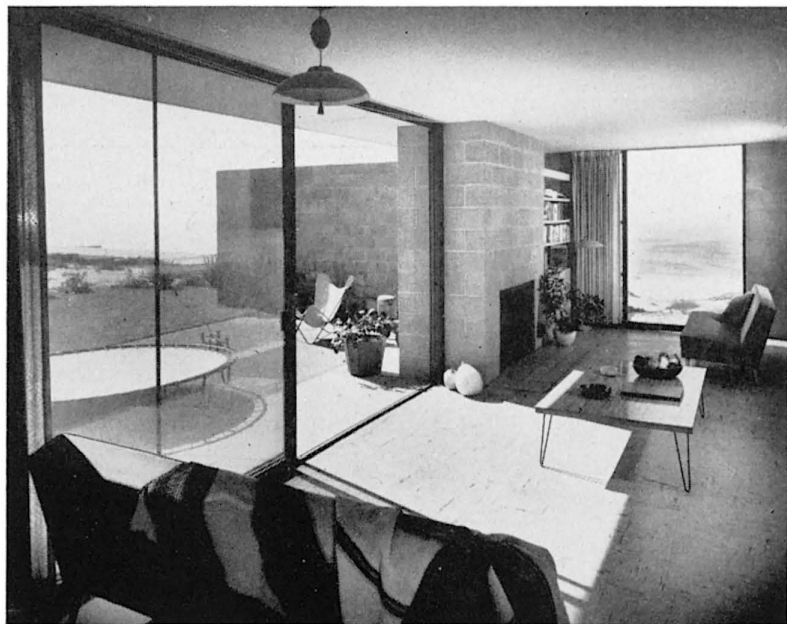
A steel structure has been designed which will take lateral forces within the depth of the roof space. This structure will be painted white. Blue polyester Fibreglas corrugated sheeting is used as roof covering. Gable ends are left open. Below the roof, and seen as an independent plane, there is a suspended ceiling of $\frac{1}{8}$ " asbestos sheet with taped edges, aluminum foil and rigid Fibreglas board which is also the finished internal surface. Glass is substituted when top lighting is needed.





PHOTOGRAPHS BY JULIUS SHULMAN





HOUSE BY THORNTON M. ABELL, ARCHITECT

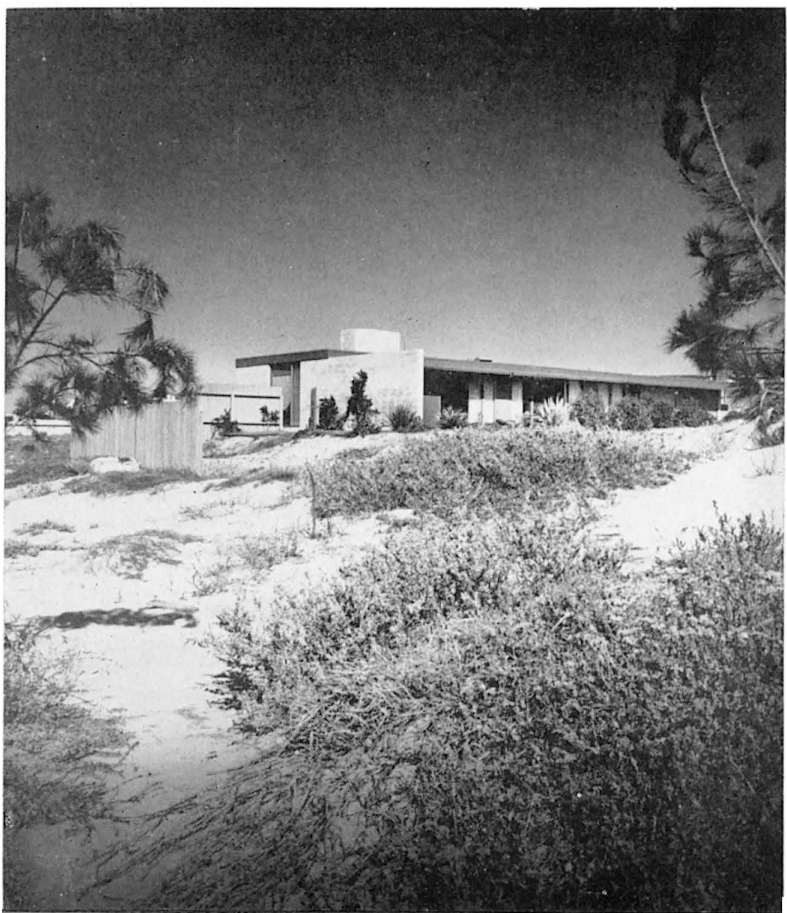
The location—A sloping sand dune overlooking the ocean, with a view of the coast.

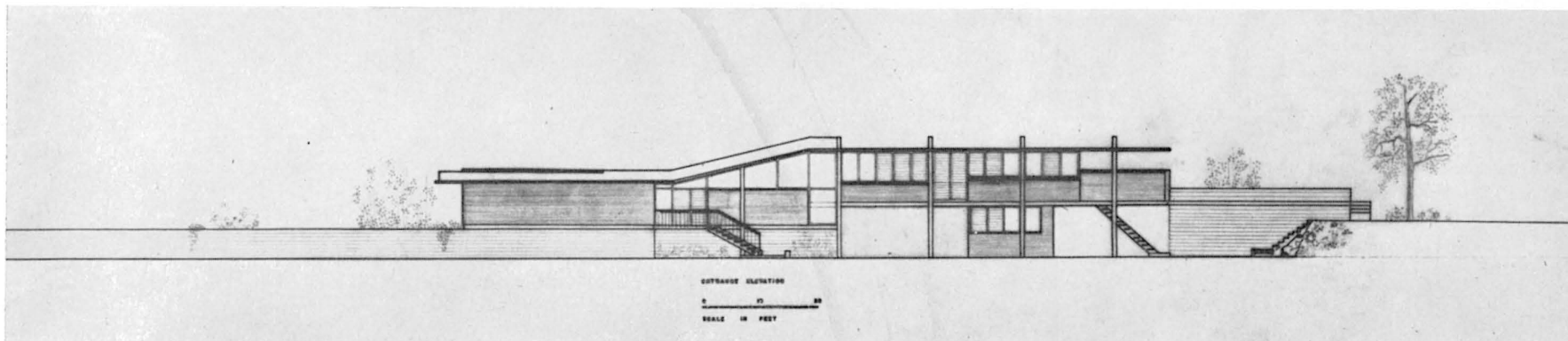
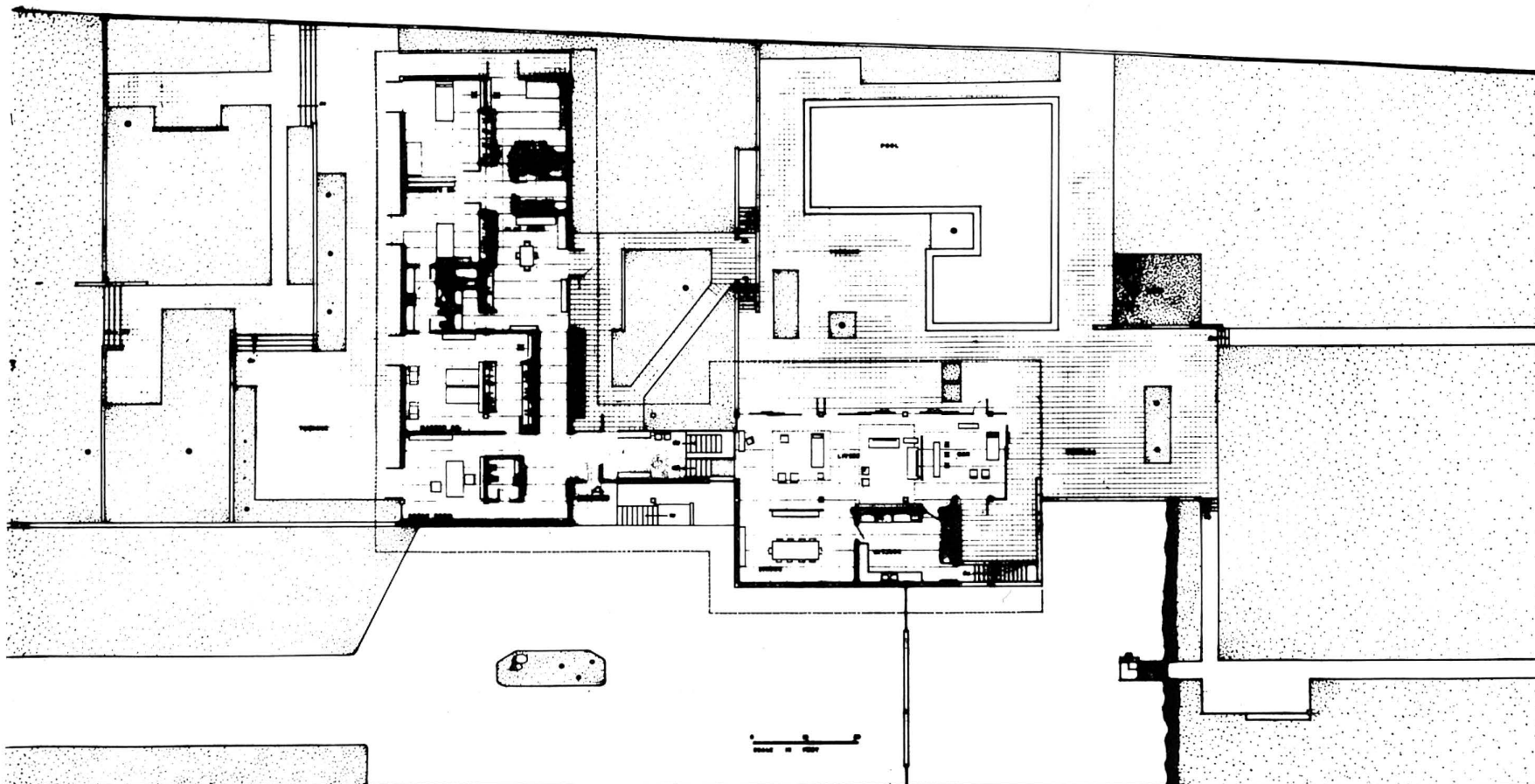
The problem—A year-around beach house to be built in two stages, the first to include the basic house; a future wing to be built for additional sleeping space as needed.

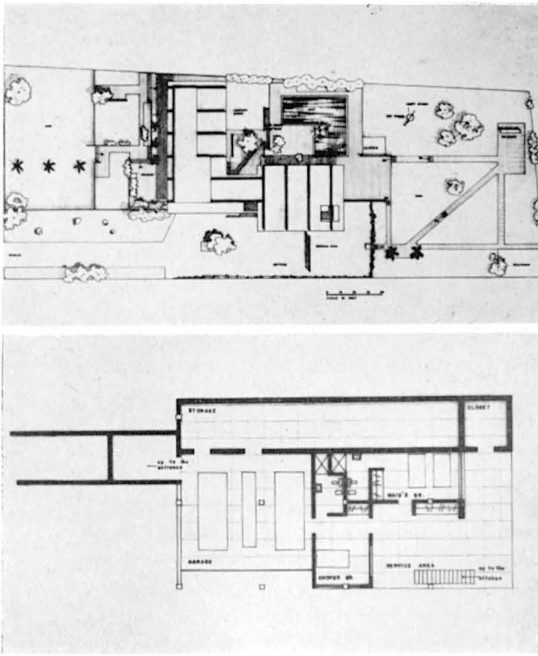
Requirements—To take full advantage of the view; to provide a play and sitting area out of the wind for adults and children; to use materials that would withstand the ocean exposure with minimum maintenance; to design a house to be used throughout with the least effort.

Materials—Exterior walls—lightweight gray concrete blocks; window walls—steel sliding doors, glass louvers, fixed glass in wood frames, with plywood filler panels below windows; interior walls—drywall; floor—radiant heated slab with asphalt tile throughout; wood frame roof construction, composition roof, acoustic tile ceiling finish; painting—clear waterproofing on concrete blocks, vinyl emulsion paint on other surfaces.

Colors are related to sand, ocean and sky. Floors—sand colored throughout; concrete blocks—natural warm gray; fascia on overhang—olive gray; structural supports and certain interior walls—dark seal brown; filler panels on exterior and certain interior walls—turquoise; other interior walls—light sand color; certain walls in service area—persimmon.







HOUSE BY MARIO ROMANACH, ARCHITECT

This residence is situated on a lot 40 m. x 120 m. on very uneven terrain, which was used to best advantage by employing different levels in the house. The problem was to design a residence for a young couple with two small daughters. Taking into consideration the unevenness of the plot, the sun diagram, prevailing winds, etc., the architect developed a bi-nuclear and split-level design. This helped to maintain the house on a "residential scale" and also permitted a series of patios characteristic of Cuban Colonial architecture, thus introducing a sort of traditional spacing within a completely contemporary scheme.

A reinforced concrete structure was used, modulated at 5 m. x 5 m. This module also applies to the patios. The depth of the beams was used, placing the roof above or below them to obtain cross ventilation in the bedroom area. The columns were polished leaving the concrete exposed. The walls are fireproof bricks in a light beige color which blends nicely with the varnished cedar woodwork. The floors of the rooms are terrazzo with $\frac{1}{4}$ " metal expansion joints. The floor of the entrance vestibule and stairway is of waxed "sabicu" wood; the floors of the terraces of antique Canary Island tiles which blend subdued tones of red most pleasingly.

At the street level are the garages, servant quarters and laundry. By ascending half a level by a wooden stair, the vestibule, with a view of the patio, is reached. On this same level, the bedroom wing is located at quite a distance from the street, and screened from it by a terraced garden, landscaped to afford complete privacy. In this wing are three bedrooms with two baths, the library with adjoining terrace, affording greater space when needed, the guest's bathroom and children's playroom which has access to a patio for children's play. Half a level higher are the dining room, kitchen, bar and living room which opens through metal and glass sliding doors onto a patio covered in part by an 11-foot overhang. The swimming pool and wading pool are located in this patio. The living room, dining room, and bar are divided by woven wicker screens on wooden frames.

The furniture was selected or designed by the architect. For the living room he chose the "Barcelona" chairs and stools by Mies van der Rohe; for the terraces, furniture by Van Keppel-Green, and for the dining room, chairs by Finn Juhl. The rest, such as beds, chests of drawers, book cases, dining room table, desk, bar, were designed by the architect and carried out in natural mahogany.



PHOTOGRAPHS BY MUNIZ

UNISTRUT SPACE FRAME SYSTEM*(Continued from Page 14)*

In fact, it was found that the space-frame can sustain imposed loads of 60 pounds per square foot on a column spacing of 41 feet, far in excess of most building code requirements. With recent improvements in the connection design, it is now believed this column spacing can be safely extended to as much as 50 feet. The flexibility of the structure is further increased by the fact that the inclosing walls may be thin panels or "curtains," suspended from the roof and connected to the floor structure.

Having tested the space-frame successfully for vertical loads, wind loads and earthquake stresses, the researchers felt the time was ripe by the spring of 1954 for a full-fledged space-frame building in order to demonstrate its use possibilities. It was a simple job, as construction goes. Neither masonry nor specialized construction such as welding, riveting or trimming were required. The site was bull-dozed level, and square pads of pre-cast concrete in three sizes were placed every four feet. Their size and weight depended on the load they had to carry.

Connector plates were placed on top of each pad, then joined by horizontal struts. This foundation appeared as a flat grid of struts resting on the pads. Four diagonal struts were then fastened to each connector plate, slanting upward toward the plates in the floor-level grid.

When the floor space-frame was finished, wall studs 18½ feet tall were set into place. The wall frame was pieced together, and the floor temporarily covered with plywood panels.

Connector plates at the top of the wall studs were the starting points of the space-frame roof. Strut by strut and plate by plate, the roof was extended over the inclosed area.

Then began the dramatic advance of the roof out into space, unsupported from below. Two arms of the roof went ahead, like scouts in advance of an army, and actually determined the places where the two supporting columns would be located. Thirty-three feet out, plumb lines were dropped from the overhanging framework, and Unistrut columns rose from these points. The rest of the roof framework was then fastened together.

Heating, plumbing and electrical connections from the Architecture Building are readily accessible in the laboratory, for they are located inside the roof and floor space-frames. The steam line ends at a central heating unit in the middle of the main ceiling.

Along with the erection of the floor, walls and roof frame, bolted trusses for mezzanine floor support were also installed. These floors extend along two sides of the building, and are joined by a bridge that hangs from the roof frame.

The cost, calculated by the University of Michigan's plant department, is, as of now, considerably below that of commercial construction. It is believed that it can be reduced far more when materials are mass-produced and the system fully standardized.

STEEL FRAME HOUSE—SORIANO*(Continued from Page 22)*

In comparing the conventional type of wood structure with our concept it will be found that every room in the wood structure is surrounded by parasitical walls. For example, a 10x12 foot room will be delineated by 6 inch walls. This means a loss of eleven lineal feet of 2 foot deep space. The roof also is supported by some of these walls, thus preventing the maximum utilization of the floor area. Also to achieve a long clear span with timbers they must be at least twice as thick as steel beams and spaced at more frequent intervals. As an example, this house of 1000 square feet was achieved with seven beams and fourteen columns where it would be necessary to use fifteen to twenty-four beams in the wood structure. After wooden beams are up, the problem of finishing the shrunken and cracked beams becomes a costly one. With the steel beams the problems of refinishing and readjustment are non-existent. Not counting the fact that the steel frame is erected square and plumb within a matter of three to four hours . . . less time than it would take the carpenters to readjust the wood frame. With steel a precise modular structural system remains—depending on no bearing walls—only on perimeter columns. The wasted 2-foot depth of wall space of the wood structure is used now for wardrobes or cabinets of other types. Where given the same restrictions, the tendency of the conventional wood house would be toward dark, gloomy and smaller appearing rooms, it has been actually proven that the steel construction created the

feeling of much larger and lighter rooms. The builders themselves expressed surprise at the quality of spaciousness achieved with each room in such a limited space.

The utilization of color in the house served the purpose of delineating the structure rather than being put on as a one-dimensional decorative effect. Here the house is seen in its spatial dimensions. Mat black for the structural steel—white for reflection of light on steel decking, yellow for all sliding doors and other non-structural metal having the same function (angles to anchor transparent or non-transparent walls).

The house is radiant-heated from pipes in the floor slab.

The finished floors throughout the house are solid color vinyl tile . . . white in living, dining and kitchen areas—black in the rest of the house. Cabinets, bathroom walls and kitchen walls made of mahogany, Formica or painted masonite, depending upon use. Fiberglass screens on the outside make enclosed gardens and walk ways. With the exception of loose chairs—the furniture, including couches, tables and beds, was prefabricated and brought to the job and set into place.—R. S.

NOTES IN PASSING*(Continued from Page 11)*

ganism, and of exercising an influence on the organism itself.

In the ethno-psychological field, man's progress is related to the idea of cerebral growth, and here a comparison between the skulls of the Java and Neanderthal men and those of our contemporaries has enabled us to establish a scale of progression. Moreover, distinct evolution is perceptible in our forms of thought.

The first biological explanation of these processes was given in 1884 when the English neurologist, J. Hughlings Jackson described certain fundamental facts relating to the evolution of the functions of the nervous system. According to Jackson, this evolution consists in the development of *well-organized* (lower) nerve centers, into higher, *less organized* or more complex centers. Evolution, in this case, is therefore progression from simplicity to complexity. This paradox of progression from the perfect to the imperfect, from the automatic to the contingent, in fact pervades the whole idea of progress in the nervous system, and therefore of human progress itself. And contingency is at the origin of will-power. This attempt towards functional reorganization made by the nervous system is called "reintegration," and mental evolution stems from a series of reintegrations.

In his book "Technics and Civilization," Lewis Mumford writes that life which has always borne the consequences of human imagination is now seeking its benefits. It has sometimes been claimed that the machine would dominate man, inhibiting the workings of his mind. But the instruments of modern techniques cannot atrophy the human brain because they cannot operate without it.

During the last fifty years, rapid technical progress has profoundly changed our lives, our social relationships, our conception of distances and even of time; human behavior has yet to adapt itself to these new mental conditions and to the new conditions of community life.

In the world today man is by no means a passive onlooker, for biological neohumanism does not conceive the field of speculation as separate from that of action. Man shares Nature's common destiny—a living reality in which he takes an active part and which he is helping to mould.

In the complex field of culture, human thought thrives in a given atmosphere. At this stage of history, the complexity of the "artificial motor-sensory organs" which stem from modern technique exercises a strong influence upon man's organic and functional life, endowing him with what might be termed a dual personality: a new personality, born of technique, which is superimposed upon the old personality, inherited from his ancestors and conditioned by the structure of the brain, which still plays a decisive part in shaping his behavior.

In this context, man is no longer bound to his environment in the same sense as formerly. A complex functional relationship has been established between him and the community and neither cultural bonds nor economic ties—which seemed at one time the most important—can adequately explain the problem of his social life. As J. C. M. Reyles has put it: modern man with his powers of perception, his capacity for imposing change and performing new functions is truly the representative of a new species.

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This new species requires a new culture. Whether we like it or not, we have embarked upon a great biological adventure, in which man, equipped with tremendous new instruments, has broken with the social patterns of the past and is rising towards new and unknown spheres. Human thought controls and guides the course of this great ship upon a stormy sea, and human intelligence alone can distinguish the right path in the darkness of this period of transition.—**Dr. Juan Cuatrecasas—Unesco**

MUSIC*(Continued from Page 9)*

way it sounds. The medieval composer had no interest in precise sound but composed by numerical design. To hear, as I did recently, the Mass by William of Machaut, the chief French poet and composer of his century, who lived a generation before Chaucer, is to call in question a great deal that we have accepted as musical value. This rugged, sinewy music, all within the compass of a single voice, makes dubious the sensual piety of Wagner's *Parsifal*. This is not music of romantic knighthood; it is the music the French chivalry listened to with honor at the start of the Hundred Years War against England. It survives today as virile and exalted as the French cathedrals. We are vulgar and provincial when we try to attach to music of another culture our own limited set of values.

Most of us hear with our prejudices. We hold to an unphilosophical belief in musical progress, music getting better and better and bigger and bigger until—many of us can't figure out just where the progress stopped. For some, modern music is still an agony. Lately, a critic who had let his prejudices get the better of his intelligence wrote a book called just that, *The Agony of Modern Music*. His theory, borrowed from the English critic Ernest Newman, holds that all great composers, including of course Bach, Mozart, and Schubert, have been popular while they lived, whereas twentieth century composers for some reason have not.

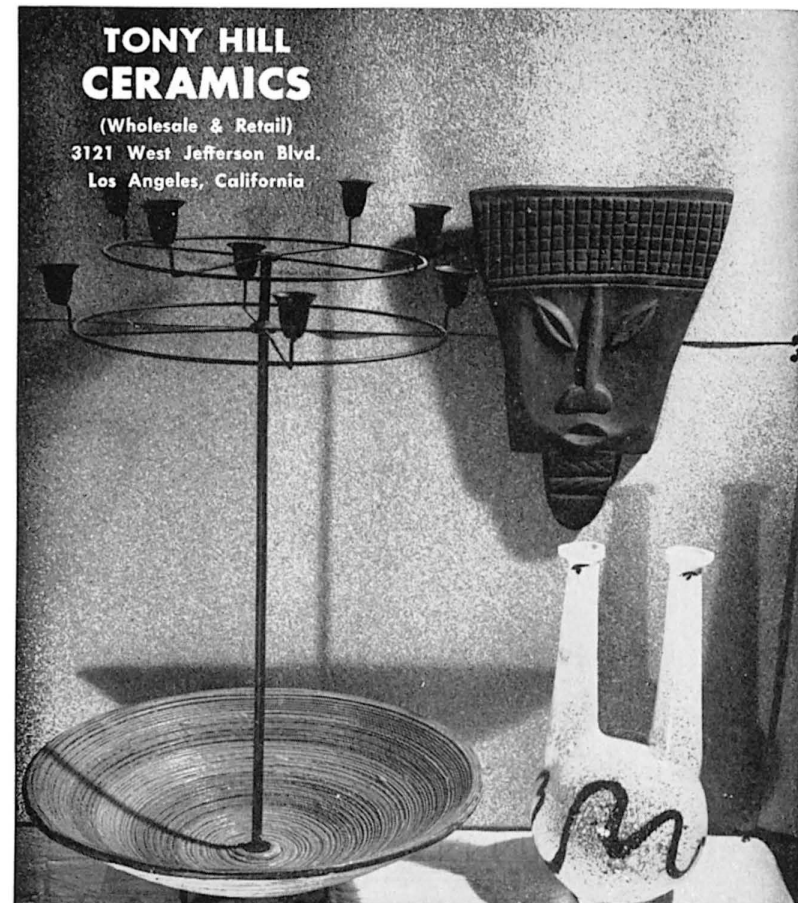
The popularity criterion runs contrary to the facts. At the present time the cult of Schoenberg, and imitation of his Method of Composing with Twelve Tones, encircles the world. Historically the composer most popular during his own lifetime may have been Haydn—or it may be Stravinsky. What other composer has been popular so early, so consistently, in so many countries, or for so large a part of his lifetime? If I am right, the most popular composer in musical history is living not far from me in Hollywood.

We have so raised empty appreciation to a virtue that often we scarcely know what it is that we appreciate. Thus we have the Hollywood Bowl fallacy, the belief that 25,000 people can, by being present, crowd in close enough to enjoy a work of art designed for a few hundred. All of us know record collectors who never go to concerts but get all their pleasure out of a machine. Oh, but it doesn't sound so good! the old-timer asserts. Oh, but it does, with good equipment and no concert hall distraction. Practical musicians like Carlos Chavez and John Cage ask why we bother to maintain the costly symphonic apparatus, why we build and tune pianos, when we can have original masterpieces especially composed for us and absolutely performed without fault or error by electronic means, unlimited by scale or technic or personality or human weakness.

Music exists only as it is somehow performed, and each performance should be fresh. I enjoy hearing records, but I do not wish to own them, because any record is only a single instance, exhaustible after a few hearings. All of us compare performances and believe, by projection, that there must be one final, absolutely right, musical shape. Fashion changes, and another performance seems to us as final, as absolutely right. The search for a competitive perfection has vulgarized the companionship of music-making; it has institutionalized the audience and reproduced the industrial revolution in the orchestra. When did you last hear someone play an instrument for his own pleasure?

After I get through this evening—talking about music, and what is talk about music except more talk?—you are to have the privilege of hearing two of my friends, a father and his daughter, Hog-yuko and Atsuko Yamaguchi, from the Japanese community in Los Angeles, play classical Japanese music, hundreds of years old, written for the two classical Japanese instruments, shakuhachi and koto.

The shakuhachi is a hollow bamboo, like a recorder but without a mouthpiece. The player holds the open tube in front of his lips and blows into it. I have known skilled Western musicians to work at it for months without producing a sound. During the fifteen hun-



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dred or more years of its existence the shakuhachi has remained unchanged, a hollow tube with five finger holes, designed to play the five notes of the Chinese scale. When the Japanese took it over, about twelve hundred years ago, they adapted the shakuhachi to their thirteen-tone scale not by remodeling the instrument but by learning a difficult and complex method of partial stopping to make the five finger holes produce the thirteen tones. That's a kind of reverence for the esthetic being of an instrument quite unlike our Western attitude. The art of playing the shakuhachi includes controlling the sound made by the breath and by the throat producing it, so that these become a part of the music. Each of these elements of style has come down from teacher to pupil by a word of mouth tradition. The shakuhachi was the instrument of the wandering Buddhist monks, who brought it to Japan, where the temple music composed for it became an expression of Zen Buddhism, a sort of abstract prayer or meditation.

The other instrument, the koto, a hollow log approximately six feet long, with thirteen silk strings, is the same instrument described by Lady Murasaki in her novel *The Tale of Genji*, written eleven hundred years ago. In the translation the koto is called, I don't know why, a zither. The koto, also imported from China, became an instrument of the Japanese aristocracy, played principally by women, as the shakuhachi is played by men. In later centuries these two instruments were paired for what we call chamber music.

Japanese composers are still writing for these two instruments, but the influence of Western harmony is slowly destroying the ancient art of unharmonized, embellished melody.

If you are to hear these two instruments effectively, you will have to give your full attention to them. The compositions are not short. You will not be able to say with assurance whether the playing is good or whether you like it. Your pleasure will be in listening to them, not forming judgments about them. May I suggest that this is the only way of listening to any music, ancient or modern, Chopin or Schoenberg, Josquin or Machaut, commonplace, or foreign, or exotic. When you have learned to direct your attention to music so well that you can really hear, you may form judgments about it. The only judgment that is at once thrown out of court is that you can't hear it. When the Kolisch Quartet played the four quartets by Schoenberg, alternating at each program with one of the last quartets by Beethoven, two of us comparing notes afterwards came up with the same conclusion: the most difficult piece of the four concerts was not by Schoenberg, it was the C sharp minor Quartet by Beethoven.

We have talked about composers and about listening. Now I want to talk about making music for yourselves, the final art and pleasure of the amateur in music. The nineteenth century brought into musical experience only one entirely new situation, the absolute division between performer and audience. Our century has added another, the distinction between amateur and professional, which holds that no amateur, unless a student, should play alone in public. These are not conscious rules; they are states of mind. Every year in this country thousands of fine young musicians discover that there is no place for them in concert business and give up music. They don't keep up their music and enjoy it for their own pleasure. They have not been taught to think of music as pleasure, or that art is for maturity, or that it involves taste, judgment, and the use of the mind, or that exploring the literature of music can be a life-long adventure. Nor have they been taught to play music in the way that their neighbors play golf or a good game of bridge. In our society we encourage children to make music; we expect any adolescent with talent to become a prodigy; yet we think peculiar anyone who continues playing as an adult, if he does not teach or otherwise make money from it. What a prodigious waste of talent, effort, happiness! If young musicians, for lack of other skill, grow up to become teachers, they take their satisfaction from their pupils; they teach but seldom play, as if they were unworthy, as if they had suffered a fatal, public condemnation.

This is damnable nonsense, but it has us in its grip, the grip of folkways that may not be violated. My final word to you, teachers, semi-professionals, amateurs, whatever you may be, is: break that grip. Go back to your instrument and play it. Learn to know the greater part of musical literature that is seldom or never heard in concerts. Mature in music as you wish to mature in wisdom. Bring your music and wisdom to the use of the community you live in. Share music with your friends. In this country crammed with public art we hide our individual gifts of skill in privacy and silence. Music will not survive in the concert hall, if we do not have it in our homes.

If you read music, sit at the piano and let music come out. Forget

about performance. Relax. Read. You'll be astonished how your eyes and hands will work together, if you don't try to make them. If you are unable to read music, sit down anyway and let your fingers play the way a child fingerpaints. Forget to be self-conscious. Don't listen to yourself and criticize. Forget yourself and listen to the beauty of unharmonized sound. This is good therapy; it may bring you to a revelation. When I sit at the keyboard and begin playing myself back into music, time ceases. The great masters of the keyboard are my companions; if they must deplore my clumsiness. I care not who is listening at a distance, because I am living the music as I can seldom hear it. I am my own explorer, my own interpreter, my own false absolute.

Whether you can play or not, remember this. Art, music can live and survive in our community, in our nation, only so long as many of us actively take part in it. We can have composers only so long as we do not require them to sound like composers of the past. The classics are not forever; art has to be remade, new classics found and rediscovered, in every generation. A community of public entertainers and private audiences may go on for a while, reading the critics and consulting the stuff on the back of agency brochures; it is dead to art.

We amateurs, we lovers of art and music, are the living body that gives forth creative genius. That is the meaning of culture, and we destroy it when we inhibit it in ourselves. When the headlines have been forgotten and all the money is spent, we shall survive in history as a culture, and the first item of that culture will be art. But now we are living in our culture. We only and no others can enjoy it. Find out for yourselves—no one else can tell you adequately—what art is and does; use it and share it, bring it out in the open with no shame of it; make art and music for yourselves. Don't be satisfied any more with knowing what you like. Like what you know and search out more to like.

Now I leave you to an adventure in classical Japanese music.

ART

(Continued from Page 10)

on, in 1953, to a strange combination of heavy brushing—with the same disagreeably furry edge as in 1947—and odd, amorphous forms. His "White Light" of 1954, which is painted more thickly than the poured paintings, is crossed and recrossed with line until all eye rests disappear and only the anxiety of the artist to cover and cover is conveyed.

Unfortunately, I was away during the last show Pollock had and am not competent to assess the recent work of 1954 and 1955. But were I to judge from the sole example of 1955 in this show, "Search," I would note that all the Pollock constants are there: the personal color, the under-structure, this time a series of dilating puddle-shapes over which line is firm, and the rhythmic, rolling confluences of curvilinear forms. But something is missing. To me this painting has the aura of transition about it. If narcissism is a component in contemporary art, or rather, if the end of the artist is to find new truths hidden in him, or, as Max Beckmann has said, to answer the question, "what am I?", then Pollock is bound to continue to search. He must find a means out of his own myth.

If Jackson Pollock must detach himself from his own myth temporarily, the young artists in the Stable show are charged with a more difficult task: that of creating one. Of the 21 artists represented, few, if any, have the assertive personal traits which distinguished Pollock when he was in his early 30s. Originality is hard to define, but in a sense, it marks the life of a thing. It is the overall lifelessness of the Stable show which deadens the impact of what should have been an interesting show. Mr. Hess claims nothing for the show except that its members are talented and represent recent directions. In his article in the Arts News Annual, he sketches their backgrounds, crediting Hofmann, deKooning, Pollock and a few others with having been major influences in the short painting lives of his proteges. Although it is most informative to examine where things come from, it does not explain or excuse the obvious eclecticism of the show. Nor does the youth of so many participants excuse the low quality. Why is it necessary to indicate directions or lack of them? Most of the painters in the show have directions handed down to them from mature artists. While it is true that at least some are talented, it is not necessarily true that they have established enough direction to be able to illuminate the problem of current tendencies. The idea of the "half-decade" seems futile to me, as does the notion that a painter in his early 30s produces his best work. The repeated stress of age, specifically on youth, is a dangerous

and indefensible art historical technique.

As far as I could see, there are only two directions in the show. There is the "new" naturalism, exemplified by about a quarter of the participants. They range in feeling from the academic Boudinist studies of Seymour Remenick, who can certainly paint well, to the Matisse-like decorative work of Nell Blaine. They include Larry Rivers, who facile life studies with a slightly sinister distortion created quite a sensation in New York; Wolf Kahn, whose genuine reflex is a full-blooded expressionist naturalism which is unquestionably a valid style for him; Leland Bell, whose nudes are little more than student works, and Robert deNiro, whose "early" still-life still had a directness which later became a blurred pastiche of expressionist and academic tendencies.

A second direction is more abstract and relates to deKooning and Pollock. Artists such as Stephen Pace, whose variants on Pollock are certainly not yet "directed"; Friedebald Dzugas, whose more lyrical but nonetheless derivative works promise much but not quite yet; Mile Forst, who is extremely talented but could certainly use more time for concretizing; Helen Frankenthaler, whose vague, floating images have yet to acquire the look of authority, and a few others fall into this group.

A few of the artists do have enough direction to warrant inclusion. Joan Mitchell is one. Her steady investigation leads her now into problems of space—the balance of clotted forms composed of separate strokes set into unlimited space. Ernest Briggs, another, is represented with a delicate abstract impressionist painting of 1952 which clearly foreshadowed the bolder work of 1955. One of the interesting paintings in the show is Michael Goldberg's landscape (or rather still-life), which is a violently expressionist interpretation of a classical picture, but one which is autographic in its projection. Milton Resnick is another painter whose maturity is underlined in the show.

Maturity is the key, the peg, in fact, on which Hess hangs this show. "All 21 artists," he says, "have found mature expressions for their particular reaction to the modern ambience." Maturity is scarcely measurable in terms of half-decades, but if it were, how do we determine it? How, if Pollock has found a mature expression, have the majority of these younger painters found them? How, if we designate deKooning as a mature artist, can we acknowledge his students—still using his idiom as springboards—as mature artists? No amount of *kunsthistorische* preliminaries can guise the fact that this exhibition offers no sound basis for analysis of recent directions.

J.O.B.

JOB OPPORTUNITY BULLETIN

FOR ARTISTS, ARCHITECTS, DESIGNERS AND MANUFACTURERS

Prepared and distributed monthly by the Institute of Contemporary Art as a service to manufacturers and to individuals desiring employment with industry either as company or outside designers. *No service or placement fee is charged to artists, architects, designers, or companies.*

J.O.B. is in two parts:

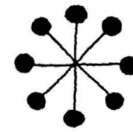
- I. Openings with manufacturers and other concerns or institutions interested in securing the services of artists, architects or designers. We invite manufacturers to send us descriptions of the types of work they offer and the kinds of candidates they seek. Ordinarily the companies request that their names and addresses not be given.
- II. Individual artists and designers desiring employment. We invite such to send us information about themselves and the type of employment they seek.

Please address all communications to: Editor, J.O.B., Institute of Contemporary Art, 138 Newbury Street, Boston 16, Mass., unless otherwise indicated. *On all communications please indicate issue, letter and title.*

I. OPENINGS WITH COMPANIES

A. ARCHITECT: Well-established eastern Pennsylvania architectural firm desires young architectural design graduate with 2 yrs. office practice. Excellent junior partnership possibilities for ambitious and energetic person. Practice will include all phases, in medium-sized office handling \$10,000 to \$2,000,000 classes of contemporary work.

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B. ARCHITECTURAL DESIGNER: Old established architectural firm located in college town within 60 miles of Boston needs experienced designer. Older person desired. Practice includes all types of private and public buildings. Give experience, availability, age and salary expected.

C. ARCHITECTURAL DRAFTSMAN: Large national corporation located in Boston seeks experienced male architectural draftsman for full-time position in small department. Salary commensurate with experience.

D. ARCHITECTURAL DRAFTSMEN: Thoroughly experienced F. P. apartments. Long-term projects. Apply B. H. Whinston, Architect, 465 Lexington Avenue, New York City, N. Y.

E. ARCHITECTURAL DRAFTSMEN: Large department store located in Boston seeks four architectural draftsmen for full-time positions in a small department. Experience in design of store interiors is desirable. Salary commensurate with experience.

F. ARCHITECTURAL DRAFTSMAN & CHIEF DRAFTSMAN with degree and experience, wanted for permanent position in Boulder, Colorado. Prefer draftsman with at least 4 years experience and chief draftsman with at least 8 years experience. Work will be general architectural practice. Positions are open now with employment starting January 1, 1956. Salary and profit-sharing basis.

G. ASSISTANT TO DIRECTOR OF DESIGN: Major manufacturer of machine-made glassware, located in Ohio, seeks capable all-around male designer to enter company as assistant to present Director of Design and to carry out responsibilities in product design, silk-screen glassware decoration, and packaging problems. College degree desirable but not essential. Applicant should be 27-35 and have some industrial experience. Good starting salary and unlimited future in company for right man.

H. CLOCK AND TIMER DESIGNER: New England manufacturer invites application from recent graduates of industrial design school for apprenticeship or junior staff design position.

I. COMPANY PRODUCT DESIGNER: Boston plastics molding manufacturer seeks imaginative product designer with strong mechanical background, practical attitude, at least several years experience in molded plastics industry, to serve on staff as full-time product development director. Salary adequate to attract right man.

J. DESIGNERS OF MACHINERY: The Institute of Contemporary Art (138 Newbury St., Boston 16) will consider purchasing at cost, photographs or slides (2"x2" color, "before and after," preferred) of new or redesigned machinery of any type. The collection thus made will be available on loan to any contributing designer. Inquiries are invited. (Address: Editor, Machine Design Slide Collection.)

K. EXHIBITION CONSTRUCTION WORKERS: Museum Branch of National Park Service has two positions open in Government exhibits studio, Washington, D. C. Address inquiries to Director, National Park Service, Washington 25, D. C.

1. *Exhibit Construction Worker:* GS-7 position for recent art school graduates with varied skills, to assist others in design, construction and installation of displays for variety of Gov't. museums throughout the U.S. Thorough knowledge of two and three-dimensional design principles and good color sense are necessary to insure attractive, well-built interpretive exhibits.

2. *Exhibit Construction Specialist:* GS-9 position for art school graduate with minimum 2 yrs. experience in exhibit design, museum preparation or commercial art. Should be able to participate in a variety of design and construction problems including two and three-dimensional display and scale models. Thorough knowledge of shop tools, artist's materials, and drafting equipment necessary. Position requires working alone or with others, occasional supervision of others.

L. EXHIBITS WORKERS: For museum. Demonstrated competence in painting, sculpting, exhibits layout and design. Qualifying experience includes preservation, preparation and mounting of exhibits specimens; cartographic, architectural or engineering experience; crafts such as carpentry, mechanics, sheet metal, molding, painting etc.; drafting and illustrating; interior decoration. Any combination of above will be considered. Starting salary \$3670 a year.

M. FLOOR COVERING DESIGNER: New England manufacturer of soft-surface floor coverings wishes to develop free-lance design sources. Two-dimensional designers of New England, experienced in fabrics, wall coverings, or floor coverings and willing to visit the factory periodically with design material, should apply.

N. GRAPHIC DESIGNERS: Large, well-established publishing company in Boston area seeks experienced male or female artists for full-time staff positions in attractive studio in new building, for varied types of decorative graphic design.

O. GREETING CARD ARTIST: New England manufacturer of greeting cards wishes to develop free-lance design sources. Two-dimensional designers wishing to qualify should apply to Editor, J. O. B.

P. INDUSTRIAL DESIGNER: Branch product design office, Chicago area, central, looking for an experienced product and versatile Industrial Designer on a percentage interest in the business. Ability to develop business essential.

Q. INDUSTRIAL DESIGNER: Top calibre experience and design background necessary. Must possess complete understanding of better design objectives. Comprehensive knowledge of industrial materials, processes and assembly techniques required. Must be capable of working in the diversified fields of design including industrial design, product design, interior design, furniture and graphics. N. Y. Contact Chon Gregory, Paul McCobb Design Associates, 139 East 57th Street, New York.

R. INSTRUCTOR IN DESIGN: Florida art school needs experienced instructor in design and silk-screen-printing, who can teach basic design, transparent water color techniques, photographic reproduction on paper and fabric, complete silk-screen-printing process and hand-painting on fabric.

S. PACKAGE DESIGNER: Immediate opening available for experienced staff designer with national folding carton manufacturer in Phila. area. Must be extremely creative with an excellent background of lettering and design. Knowledge of merchandising desirable. Salary commensurate with background and ability.

T. PACKAGE DESIGNER: Immediate opening available for experienced staff designer with national folding carton manufacturer in Boston area. Must be extremely creative with an excellent background of lettering and design. Knowledge of merchandising desirable. Salary commensurate with background and ability.

U. PRODUCT DESIGNER: Large eastern manufacturer in chemical process industry has staff opening at management level in diversification and expansion program. Strong mechanical engineering background with experience in plastics, wood, light metal or similar materials to develop consumer products emphasizing functional aspects.

V. PRODUCT DESIGNER, LIGHTING: Company over 50 yrs. old, recognized leader; national recognition for product design; manufactures principally lighting fixtures for residential and commercial use and portable lamps and fixtures for residential use. Seeks young man with several years experience in industry. Because company's activities have expanded rapidly in last five years, it offers excellent opportunity.

W. PRODUCT DESIGNER, LIGHTING: National manufacturer of commercial and industrial fluorescent lighting seeks the services of an experienced individual capable of developing creative ideas, to work directly under the company's Designing Director.

X. RADIO-TV: Large, well-established middle-west manufacturer with company design studio has openings for junior designers with experience in graphics, packaging, furniture, radio and TV.

Y. SCULPTORS: Leading manufacturer of cemetery memorials and tombstones seeks for full-time staff employment, in northeastern area, several young male sculptors of unusual talent and proven ability, age 25-35, for plaster model-making and stone sculpture. Salary commensurate with background and experience.

Z. THREE-DIMENSIONAL DESIGNER: Exhibit and display company in North Central states seeks designer experienced in exterior and interior exhibition and display, with imagination and knowledge of structural and presentation techniques, as strong addition to existing design staff.

Aa. TWO-DIMENSIONAL DESIGNERS: Large manufacturer of institutional and fine vitrified china in western Pennsylvania has two staff openings in well directed design department for imaginative, trained designers. Principal emphasis on decoration in four separate product lines, with other activity such as shape design, packaging, displays, etc. Salary commensurate with capacity and experience.

Bb. TYPE FACE DESIGN DRAFTSMAN: For manufacturer of photographic typesetting equipment. Artist to make master drawings of printing type faces and create new type face designs. Salary commensurate with experience.

Cc. WALLPAPER DESIGNER: New England manufacturer of wallpaper wishes to develop free-lance design sources. Two-dimensional designers in New England or New York area wishing to qualify should apply to Editor, J. O. B.

II. ARTISTS AND DESIGNERS SEEKING EMPLOYMENT

The Institute does not necessarily endorse the following individuals, who are listed because they have asked the Institute to help them find employment.

A. ARCHITECT: Graduate, Univ. of Pennsylvania, B.A. & M.A. in Architecture. Member National Honorary Fraternity in Architecture; awarded the Langley Fellowship of the A.I.A., 1952. 4 years experience as draftsman, designer and supervisor of commercial and institutional work. Seeks position with American architectural office in Europe. Available Feb. 1, 1956. Male, age 29, married.

B. ARCHITECTURAL DESIGNER: B.A. Mount Union College; architectural school, Western Reserve College, 1952. Experience: 4 years POS design, free-lance architectural models, product design, display, residential architecture, commercial remodeling, and sales promotion for prominent plumbingware manufacturer. Prefers area east of Mississippi River. Male, age 35, married.

C. ARCHITECTURAL DESIGNER: B.S. in Architecture, University of Idaho, 1953. 3 years experience in design, presentation, models, working drawings; 4 years experience in construction work. Desires position with small, progressive firm interested in contemporary architecture in the West. Male, age 24, married.

D. ARCHITECTURAL DRAFTSMAN-DESIGNER: Experience in theatres and office buildings; presently responsible for working drawings of new Opera House in Cologne. Wishes to learn American architecture by spending 4 years in the U.S. Fare will be paid by applicant. Male, age, 27, single. Contact Rolf Buermann, Rhoendorf/Rhine, Loewen-burgstrasse 57, Germany.

E. ART INSTRUCTOR-CERAMICS & SCULPTURE: B.A. Denver University, 1954; studied at Boston Museum School. Experience includes design of sales promotional material for building materials manufacturer. Has exhibited and sold sculpture. Desires teaching or three-dimensional design position. Male, age 25, married.

F. ART INSTRUCTOR, DESIGNER: B.F.A. in Painting, R.I. School of Design, 1955. Experience: designing, drafting, textile design. Desires teaching or two-dimensional designing position. Female, age 27, single.

G. ARTIST-TEACHER: M.A., Painting and History of Art. Member, American Assn. of University Professors, College Art Assn. of America, Midwestern College Art Conference. Active exhibiting painter with awards in painting and drawing. Experience: 6 years teaching in large midwestern university and art museum; commercial art; published illustration; research in design theory. Desires assistant professorship in college or university art department emphasizing painting, drawing, design, crafts, theory and history of art. Available summer, 1956. Male, age 32 married.

H. ARTIST-TEACHER: B.S. in design, Univ. of Michigan, M.A., Art History, 1952. 4 years teaching drawing and art history, exhibits arranging, scenery designing for TV. Participated in group and one-man shows. Seeks university or college teaching position east of Mississippi River. Male, age 31, married.

I. ARTIST-TEACHER: B.S. Ed. Tufts Univ.; 6 years study at Boston Museum School; traveling fellowship to Europe, Near East. 3 years teaching experience in public schools. Exhibited in national, international shows. Seeks position in public or private school or college. Prefers Illinois or Iowa area. Male, age 26, single.

J. ARTIST-TEACHER: M.A. in art, Univ. of California; M.A. in teaching, Radcliffe Univ. Studied with Robert Motherwell and Hans Hofmann and at Institute of Design, Chicago. Exhibition experience. Contemporary approach to drawing, painting and design. Seeks position in college or gallery, or in design work. Female, age 24, single.

K. CREATIVE DESIGNER: 7 years experience as staff artist, free-lance designer. Seeks free-lance design assignments for textiles, decorated glassware, gift wrap and childrens book illustration. Female, age 28, married. Prefers Los Angeles area.

L. CREATIVE DESIGNER: B.S., Boston Museum School, 1952; Art Students League, N. Y. Experience: textiles, TV scenic backgrounds, illustration, greeting cards, display and mural interiors. Seeks free-lance work. Female, age 24, single.

M. CREATIVE DESIGNER-SALESMAN: Designer with sales ability. 16 yrs. as artist, product designer and stylist. 6 yrs. with plastic manufacturing company of fabricated and moulded parts. Good mechanical background. Can handle detailing, drafting and tool design. Prefers Boston area. Male, age 34, married.

N. DESIGN DRAFTSMAN: 5½ years experience in furniture, radio, phonograph and television cabinet design, development, production and packaging. Desires position with reliable firm, willing to delegate responsibility in detail work. Male, age 27, single. Willing to relocate.

O. DESIGNER: High honor graduate, Michigan State Univ. Experience in small product model-making, extensive background in technical illustration, acquainted with production processes. Seeks full-time industrial or interior design advanced beyond present work. Currently designing high-style giftware-housewares for leading company in this field. Male, age 25, single. Willing to relocate.

P. DESIGNER-CRAFTSMEN: Team offers services as design consultants to firms wishing a fresh approach to new or existing problems in fields of jewelry, silverware, stainless, etc. Broad backgrounds in Europe and U. S. with industry. Limited production and custom work. Experienced in carrying projects from original concept through designing, model-making and into production.

Q. DESIGNER-STYLIST: Graduate, Art Institute of Chicago. 6 years experience various areas of textile design, including printed, screened and woven fabrics; soft and hard floor coverings. Also mill experience. Prefers N. Y. area. Male, age 40, single.

R. DESIGNER-STYLIST: Graduate, Pratt Institute, 1947. 8 years design experience; 5 years art editor of leading N. Y. fashion magazine. Seeks free-lance assignments in gift wrappings, packaging or textiles in N. Y. area. Female, age 28, married.

S. DIRECTORS OF DESIGN: Several outstanding, experienced and mature designers have asked the Institute to help them find new positions as Design Directors in large corporations. The Institute considers these individuals unusually well-qualified to take full responsibility for Product Design in company Design Departments. They are trained in engineering and design. One prefers midwest or west coast; another, the east coast; the third will relocate anywhere. All inquiries confidential.

T. EXECUTIVE DESIGN DIRECTOR: Graduate, Carnegie Institute of Technology, 1949, B.F.A. in Industrial Design. Experience in materials, production, engineering, advertising and sales problems. Interested in working toward top managerial position. Prefers Northeast, but willing to relocate. Male, age 37, married.

U. FURNITURE DESIGN: European training. 10 years experience in designing, constructing and selling own contemporary designs. Has won national recognition. Seeks free-lance accounts. Male, age 33, married.

V. FURNITURE DESIGNER: Graduate, Chouinard and Art Center Schools, Los Angeles. 10 years experience: all phases furniture design, production and merchandising. Specializes in designs based on simplified production methods in woods, metals, plastics. Mechanical ability. Female, age 38, single.

W. GRAPHIC DESIGNER: Training at Art Center School and California School of Fine Art. 7 years experience: advertising, layouts, typography and production, publishing, and catalog design. Desires position in progressive graphic design department with manufacturer or industrial designer. Prefers N. Y. or California area. Male, age 29, single.

X. INDUSTRIAL DESIGNER: Graduate, Cambridge School of Design, 1952. 3 years experience for fabricated and molded plastics; high-style layout, display, technical illustrating, drafting with well-known manufacturer. Familiar with manufacturing materials, methods and limitations. Desires position with design firm or manufacturer. Prefers New England area. Male, age 27, married.

Y. INTERIOR DESIGNER: Registered Illinois architect, well-known in hotel and restaurant design field, would like to join organization that can furnish him the team to execute his ideas, which have scored several major successes. Chicago area preferred. Male, age 55, single.

Z. PAINTER-SCULPTOR-POTTER: Former art professor, now practicing potter and jewelry-maker, wishes position for summer, 1956. Can teach sculpture, painting, drawing, design, history of art, pottery, jewelry-making, general crafts. 10 years teaching experience. Male, age 41, married. Contact Edwin Todd, Highgate, Jamaica, B.W.I.

Aa. TEACHER-PAINTING, METAL OR DESIGNER: M.F.A. Univ. of Florida, 1953. 4 years teaching experience. Has exhibited nationally. Seeks college or univ. position in area of painting, metal or design. Male, age 33, married. Willing to relocate.

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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 new Case Study House 17.

NEW THIS MONTH

APPLIANCES

(426) Contemporary Clocks and Accessories: New collection of 8 easily mounted weather vanes, traditional and modern designs by George Nelson. 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 Co., Zeeland, Mich.

✓(250a) Built-in appliances: Oven unit, surface-cooking unit, dishwasher, food waste disposer, water heater, 25" washer, refrigerator and freezer are featured built-in appliances merit specified for Case Study House No. 17. Recent introductions are three budget-priced appliances, an economy dryer, a 12½ cubic ft. freeze chest and a 30" range. For complete details write Westinghouse Electric Supply Co., Dept. AA, 4601 So. Boyle Ave., Los Angeles 58, Calif.

DECORATIVE ACCESSORIES

(137a) Contemporary Architectural Pottery: Information, illustrative matter excellent line of contemporary architectural pottery designed by John Follis and Rex Goode; large man-height pots, broad and flat garden pots; mounted on variety of black iron tripod stands; clean, strong designs; data belongs in all files.—Architectural Pottery, Box 24664 Village Station Los Angeles 24, California.

(122a) Contemporary Ceramics: Information, prices, catalog contemporary ceramics by Tony Hill; includes full range table pieces, vases, ash trays, lamps, specialties; colorful, well 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.

(258a) Mosaics. Original, specially designed mosaics, for exterior or interior

wall areas. Plaster in wall, hang, or use as room divider panels. Durable, weatherproof. Request free file of ideas and glossy photos of work now available. Bonnie Jean Malcolm, 13228 South Blodgett Ave., Downey, California.

FABRICS

(171a) Contemporary Fabrics: Information one of best lines 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 answer to all your fabric needs; reasonably priced. Angelo Testa & Company, 49 East Ontario Street, Chicago 11, Illinois.

(264a) Inquire for a handsome (\$1.00) file folder of 20 swatches of Granite, a heavy-duty upholstery, adapted from a hand woven original. An accordion folder of fifty different swatches with complete information may be ordered for \$3.00.

The finest contemporary fabrics from Jack Lenor Larsen, Inc. are available at Kneeder Fauchere showrooms in San Francisco and Los Angeles. These fabrics are weaver-designed, with the yarn selection, the designing, the weaving, and the sales supervised by the Larsen associates. The designers have experience in both design and architecture and know the place of fabric in the scheme of things. Write: Larsen, Inc., 36 E. 22nd St., New York, N. Y.

FURNITURE

(188a) Baker Modern Furniture: Information complete line new contemporary furniture designed by Finn Juhl, tables, cabinets, upholstered pieces, chairs; represents new concept in modern furniture; fine detail and soft, flowing lines combined with practical approach to service and comfort; shelf and cabinet wall units permit exceptional flexibility in arrangement and usage; various sections may be combined for specific needs; cabinet units have wood or glass doors; shelves and trays can be ordered in any combination; free standing units afford maximum storage; woods are English hawthorn, American walnut, white rock maple in contrasting colors—almost true white and deep brown; most pieces also available in all walnut; wood and provides protection against special finish preserves natural finish of wear and exposure to moisture; excellent craftsmanship; data belong in all contemporary files; illustrated catalog available.—Baker Furniture, Inc., Grand Rapids, Michigan.

(248a) Furniture: Paul McCobb's latest brochure contains accurate descriptions and handsome photographs of pieces most representative of the McCobb collections of furniture. Write for this reference guide to Hanley-Howard, Dept. AA, 8950 Beverly Blvd., Los Angeles 48, Calif.

(257a) Furniture: A new eighteen page brochure contains 30 photographs of John Stuart furniture demonstrating a concept of good design with emphasis on form no less than function. Accompanying descriptions include names of designers, approximate retail prices, dimensions and woods. Available for 25c from John Stuart Inc., Dept. AA, Fourth Avenue at 32nd Street, New York 16, N. Y.

(169a) Contemporary Furniture: New 28-page illustrated color brochure gives detailed information Dunbar new modern furniture designed by Edward Wormley; describes upholstered pieces, furniture for living room, dining room, bedroom, case goods; woods include walnut, hickory, birch, cherry; good design; quality hardware, careful workmanship; data belongs in all files; send 25 cents to cover cost: Dunbar Furniture Company of Indiana, Berne, Ind.

(230a) Contemporary Office Furniture: Newly published illustrated brochure describing contemporary high-style office furniture in CMF quality line. Many examples shown, including such features as solid brass hardware, full-size file drawers fitted for Pendafile File Folders; wide range of beautiful cabinet woods combined with cigarette-proof micarta tops. Perfect workmanship, finish of this handsome line, combined with moderate price, make it ideal for retail stores, offices, reception room. CMF has recently affiliated with Vista Furniture Company of Anaheim. For full information and complete price list, write to Costa Mesa Furniture Mfg. Co., Dept. AA, 2037 Placentia St., Costa Mesa, California.

(314) Furniture, Retail: Information top retail source best lines contemporary lamps, accessories, fabrics; designs by Eames, Aalto, Rhode, Noguchi, Nelson; complete decorative service.—Frank Brothers, 2400 American Avenue, Long Beach, Calif.

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

(323) Furniture, Custom and Standard: Information one of best known lines contemporary metal (indoor-outdoor) and wood (upholstered) furniture; designed by Hendrik Van Keppel and Taylor Green—Van Keppel Green, Inc., 9501 Santa Monica Boulevard, Beverly Hills, Calif.

(174a) Information available on contemporary grouping, black metal in combination with wood, for indoor-outdoor use. Illustrated catalogue of entire line offers complete information.—Vista Furniture Company, 1541 West Lincoln, Anaheim, California.

(247a) Contemporary home furnishings: A new 1955 illustrated catalogue presenting important examples of Raymor's complete line of contemporary home furnishings shows designs by Russell Wright, George Nelson, Ben Seibel, Richard Galef, Arne Jacobsen, Hans Wagner, Tony Paul, David Gil, Jack Equier and others. Included is illustrative and descriptive material on nearly 500 decorative accessories and furnishings of a complete line of 3000 products. Catalogue available on request from Richards Morgenthau, Dept. AA, 225 Fifth Ave., New York City 10, New York.

(201a) Office Interiors, Wholesale: The West's most complete selection of Office Furniture. Top lines represented: Columbia Steel Files and Desks, Tye Lamp, Wilshire House Royal Metal Chairs, Doten-Duten, etc. Complete coordinated grouping of new Feldman-Selje designs of Executive Secretarial, Receptionist Office Furniture finished in walnut and Zolatone. Spacious showroom (9000 square feet). Many different styles of accessories and erecting fabrics for office decor. Free catalog on request. Office Interiors, 8751 Beverly Blvd., Los Angeles, California.

(221a) Italian Marble Table Tops: Rene Brancusi's extraordinary collection of regal marble table tops, imported directly from Italy, is presented in newly published brochure now available. The table tops come in every size, shape and color, elegantly combined with solid brass, wood and wrought iron bases, custom designed or constructed to individual specifications. For further information, write to Rene Brancusi, 996 First Avenue at 55th Street, New York City, or 928 North La Cienega, Los Angeles, California.

(147a) Wholesale Office Furniture: Information: Open showroom for the trade, featuring Desks, Upholstered Furniture, and related pieces. Exclusive Lines, from competitive, to the ultimate in design, craftsmanship, and finish available in the office furniture field. Watch for showing, late this month, of the new modular cantilevered line—an entirely new concept in office engineering. Spencer & Company, 8327 Melrose Ave., Los Angeles, California.

(241a) "Skylark" designed by Edward Frank, comprising a complete living room series, is one upholstered group introduced by the new subsidiary firm of Pacific Iron Products, The Gordon Stanford Division. The new firm will manufacture fine contemporary upholstered furniture and occasional pieces. For additional information write to The Gordon Stanford Division, Pacific Iron Products, Dept. AA 11930 W. Olympic Blvd., Los Angeles 64, Calif.

HEATING, AIR CONDITIONING

(55) Water Heaters, Electric: Brochure, data electric water heaters; good design.—Bauer Manufacturing Company, 3121 W. El Segundo Boulevard, Hawthorne, 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; merit specified CSHouse 1952—NuTone, Inc., Madison and Red Bank Roads, Cincinnati 27, Ohio.

(224a) Thermador Wall Heat Fan—Information now available on this sturdy, compact, safe unit—quickly installed, economical to use. Separate switches for fan and heat, neon working indicator light. Lower grille forces warm air downward creating less heat waste. Fan action induces constant air flow over resistance coils, preventing oxidation and deterioration through

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red glow. Choice of handsome finishes in bronze, white enamel or stainless steel. Write to Thermador Electrical Mfg. Company, Los Angeles 22, Calif.

✓ (233a) Pryne Blo-Fan: Ceiling "Spot" ventilator. Newly available information describes in detail the principles and mechanics of Blo-Fan, an effective combination of the breeze fan and the power of a blower in which best features of both are utilized. Includes many two-color illustrations, helpful, clearly drawn diagrams, specifications and examples of fans of various types and uses. Blo-Fan comes in three sizes for use in various parts of the house and can also be combined with a recessed light unit, amply illuminating range below. For this full and attractive brochure, write to Pryne & Co., Dept. AA, 140 N. Towne Ave., Pomona, California.

(542) Furnaces: Brochures, folders, data Payne forced air heating units, including Panelair Forced Air Wall heater, occupying floor area of only 29- $\frac{3}{8}$ " x 9 $\frac{3}{8}$ "; latter draws air from ceiling, discharges near floor to one or more rooms; two speed fan.—Payne Furnace Company, Monrovia, Calif.

(907) Quick Heating: Comprehensive 12-page catalog featuring Markel Heetaire electrical space heaters; wall-at-tachable, wall-recessed, portable; photographs, technical data, non-technical installation data; good buyer's guide.—Markel Electric Products, Inc., Buffalo 3, N. Y.

• (956) Indoor Incinerator: Information Incinerator 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 CSHouse 1952.—Incineration Division, Bowser, Inc., Cairo, Ill.

LIGHTING EQUIPMENT

(119a) Recessed and Accent Lighting Fixtures: Specification data and engineering drawings 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 Mfg. Corp., 2229 4th Street, Berkeley 10, California.

(782) Sunbeam fluorescent and incandescent "Visionaire" lighting fixtures for all types of commercial areas such as offices, stores, markets, schools, public buildings and various industrial and specialized installations. A guide to better lighting, Sunbeam's catalog shows a complete line of engineered fixtures including recessed and surface mounted, "large area" light sources with various, modern diffusing mediums. The catalog is divided into basic sections for easy reference.—Sunbeam Lighting Company, 777 East 14th Place, Los Angeles 21, California.

(253a) Television Lighting Catalogue No. 4 is a result of research and development to meet Television's lighting needs. Contents include base lights, spotlights, striplights, beamlights, control equipment, accessories and special effects. Request your copy from Century Lighting, Dept. AA, 521 W. 43rd St., New York 36, New York.

(170a) Architectural Lighting: Full information new Lightolier Calculte fixtures; provide maximum light output evenly diffused; simple, clean functional form: square, round, or recessed

with lens, louver, pinhole, albalite or formed glass; exclusive "torsionite" spring fastener with no exposed screws, bolts, or hinges; built-in fibreglass gasket eliminates light leaks, snug self-leveling frame can be pulled down from any side with fingertip pressure, completely removable for cleaning; definitely worth investigating.—Lightolier, 11 East Thirty-sixth Street, New York, New York.

(z7a) Contemporary Commercial Fluorescent, Incandescent Lighting Fixtures: Catalog, complete, illustrated specification data Globe contemporary commercial fluorescent, incandescent lighting fixtures; direct, indirect, semi-indirect, accent, spot, remarkably clean design, sound engineering; one of most complete lines; literature contains charts, tables, technical information; one of best sources of information on lighting.—Globe Lighting Products, Inc., 2121 South Main Street, Los Angeles 7, Calif.

(246a) Theatrical Lighting Catalogue No. 1: Is a comprehensive presentation of lighting instruments and accessories required for entertainment productions. Contents include information on stage layouts, spotlights, floodlights, striplights, special equipment, control equipment, accessories and remote control devices. To obtain a copy write to Century Lighting, Dept. AA, 521 West 43rd St., New York 36, New York.

(253a) Lighting Equipment: Booklet available on the "C-I Board," (Century-Izenour Board) first all electronic system for stage lighting control. Main elements are Preset Panel, Console Desk, and Tube Bank. Advantages include adaptability, easy and efficient operation, low maintenance. Write to Century Lighting, Inc., 521 W. 43rd St., New York 36, New York.

✓ (375) Lighting Fixtures: Brochures, bulletins Prylites, complete line recessed lighting fixtures, including specialties; multi-colored dining room lights, automatic closet lights; adjustable spots; full technical data, charts, prices.—Pryne & Company, Inc., 140 North Towne Avenue, Pomona, Calif.

(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 the Case Study House No. 17. For complete details write Wasco Products, Inc., 93P Fawcett St., Cambridge 38, Mass.

(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; selected units merit specified for CSHouse 1950 Stamford Lighting, 431 W. Broadway, New York 12, N. Y.

MISCELLANEOUS

(360) Telephones: Information for architects, builders on telephone installations, including built-in data.—A. F. DuFault, Pacific Telephone & Telegraph Company, 740 So. Olive St., Los Angeles, California.

PAINTS, SURFACE TREATMENT

(160a) Mosaic Clay Tile for walls and floors—indoors and out. The Mosaic Line includes new "Formfree" Patterns and Decorated Wall Tile for unique random pattern development; colorful Quarry Tile in plain and five "non-slip"

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abrasive surfaces; and handcrafted Faience Tile. The Mosaic Tile Company, 829 North Highland, Hollywood 38. Hollywood 4-8238.

✓ (238a) The Safe-O-Matic swimming pool cover keeps pool clean, conserves pool temperature, guarantees safety. Four roll carriers support aluminum rails to which heavy aluminum tubing is hinged. Outer cover is of heavy deck canvas impervious to flame and water. An enclosed electric reduction motor $\frac{1}{4}$ H.P. powers the cover which fold back in 35 seconds. Sun-drying and service deck (optional) includes service bar, will conceal cover. Write for brochure Safe-O-Matic Mfg. Co. Dept. AA, 33 St. Joseph Street, Arcadia, Calif.

✓ (254a) Asphaltic Products: for tile setting, industrial roofing, protective coatings for walls, roofs and pressure vessels. Emulsions for surfacing roads, parking and recreation areas. Laykold, designed for tennis court construction, is Merit Specified for Case Study House No. 17. For brochure write to American Bitumuls and Asphalt Co., 200 Bush St., San Francisco 4, Calif.

✓ (251a) Concrete emulsions: Red Label Suconem minimizes efflorescence, has proved an effective water-bar. Merit specified for Case Study House No. 17. For complete information write Super Concrete Emulsions Limited Dept. AA, 1372 E. 15th St., Los Angeles, Calif.

(179a) Plexolite-fiberglas reinforced-translucent sheet: Folder illustrating uses of corrugated or flat Plexolite in industry, interior and outdoor home design and interior office design. Technical data on Plexolite together with illustrated breakdown of standard types and stock sizes; chart of strength data and static load. Additional information on Plexolite accessories for easy installation.—Plexolite Corporation, 4223 W. Jefferson Boulevard, Los Angeles, Calif.

(175a) Etchwood and Etchwall; textured wood paneling for homes, furniture, offices, doors, etc. Etchwood is plywood; Etchwall is redwood lumber T & G preassembled for fast, easy installation; difficult to describe, easy to appreciate.—Davidson Plywood & Lumber Company, 3136 East Washington Boulevard, Los Angeles, California.

(585) Etchwood Panels: Literature Etchwood, a "3-dimensional plywood" for paneling, furniture, display backgrounds; soft grain burnished away leaving hardwood surface in natural grain-textured surface; costs less than decorative hardwood plywood; entirely new product, merits close consideration.

—Davidson Plywood & Lumber Company, 3136 East Washington Boulevard, Los Angeles, Calif.

(245a) Switzer Panel. A lightweight concrete building unit—10 ft. long, 2 ft. wide, 6 in. thick. For residential, commercial, industrial construction. May be cut to desired lengths before delivery for wall heights, door and window openings. Each unit is cored to accommodate reinforcing steel and grout and to carry utilities. Walls and partitions erected in one operation. Approved by Uniform Building Code; accepted for FHA mortgage insurance. For illustrated brochure, write to Richard R. Branstetter, Dept. AA, Switzer Panel Corporation, 3464 E. Foothill Blvd., Pasadena 8, Calif.

(162a) Zolatone Process: Information on new revolutionary painting system; true multi-color paint permits application to a surface of multi-color pattern in single spray coat; no special spray equipment required nor special techniques; multiple colors exist separately within Zolatone finish, do not merge nor blend; intermixing of varying ratios of colors and sizes of aggregates produces infinite number of possible multi-color blends; washable, exceptionally abrasion resistant; provides excellent finish for most materials used in building construction: wood, metal, plaster, cement, stone, glass, tile, wall boards, Masonite, paper; tends to conceal flaws and surface imperfections; used to paint exterior surface of new J. W. Robinson Building in Beverly Hills; information belongs in all files.—Manufactured by Paramount Paint and Lacquer Company, 3431 E. 15th St., Los Angeles 23.

ROOFING

✓ (146a) Fiberglas (T.M.Reg. U.S. Pat. Off.) Building insulations—Application data, specifications for insulating walls, top floor ceilings, floors over unheated space. Compression-packed, long continuous rolls, self-contained vapor barrier. Goes up quickly, less cutting and fitting. High thermal efficiency. Non-settling, durable, made of ageless glass fibers. Owens-Corning Fiberglas Corp., Toledo 1, Ohio.

✓ (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 water-proofing 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."



SCHOLARSHIPS

Four \$1320 merit awards for 1956-57 scholastic year available to architects, designers, painters, sculptors, ceramists, weavers and metalsmiths. Applications received until March 1, 1956. Degrees offered: B.F.A., M.F.A. and M. Architecture.

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The easy application is explained and illustrated in detail with other roofing products illustrated. Owens-Corning Fiberglas Corp., Pacific Coast Division, Dept. AA, Santa Clara, Calif.

SASH, DOORS AND WINDOWS

✓(212a) Glide Aluminum Sliding Windows: Complete Glide brochure available on aluminum sliding windows, engineered with precision, made of finest extruded aluminum, stainless steel weatherstripping and rollers for better performance, endurance. Advantages: eliminates need for costly cleaning apparatus, scaffolding; easier, less expensive installation; never requires painting; lowers insurance rates; guaranteed for life of building. Write to L. Pinson, Dept. AA, Glide Windows, Inc., 7463 Varna Ave., No. Hollywood, Calif.

(202A) Profusely illustrated with contemporary installation photos, the new 12 page catalog-brochure issued by Steelbilt, Inc., pioneer producer of steel frames for sliding glass doorwalls and windows, is now available. The Brochure includes isometric renderings of construction details on both Top Roller-Hung and Bottom Roller types; 3" scale installation details; details of various exclusive Steelbilt engineering features; basic models: stock models and sizes for both sliding glass doorwalls and horizontal sliding windows. This brochure, handsomely designed, is available by writing to Steelbilt, Inc., Gardena, Cal

(356) Doors, Combination Screen-Sash: Brochure Hollywood Junior combination screen metal sash doors; provides ventilating screen door, sash door; permanent outside door all in one.—West Coast Screen Company, 1127 East Sixty third Street, Los Angeles, California (in 11 western states only.)

(256a) Folding Doors: New catalog is available on vinyl-covered custom and standard doors. Emphasizes their almost universal applicability. Folding doors eliminate wasteful door-swing area, reduce building costs. Mechanically or electrically operated. Modern-fold Doors Inc., 3836 E. Foothill Blvd., Pasadena 8, California.

(244a) Graphically illustrating the uses, sizes and types of steel-framed sliding glass doors is a new 12-page catalog issued by Arcadia Metal Products. Cover of the catalog features a full-color photograph of a Connecticut residence with installation of Arcadia doors. Also shown are uses of the products for exterior walls in a school, hospital, low-cost development house, luxury residence and commercial building. Unusual feature in catalog is "Data Chart" which lists dimensions of glass required for the most popular Arcadia door sizes, rough opening sizes and shipping weights of the product. Profusely illustrated, the catalog contains specifications and details of doors for both single and double glazing as well as information concerning stock and non-stock door sizes. Copies of the

catalog may be obtained from Arcadia Metal Products, Catalog 1955-13, P.O. Box 657, Arcadia, Calif.

(222a) Architectural Window Decor—LouverDrape Vertical Blind's colorful new catalog describes LouverDrape as the most flexible, up-to-date architectural window covering on today's market. Designed on a 2½ inch module, these vertical blinds fit any window or skylight—any size, any shape—and feature washable, flame-resistant, colorfast fabric by DuPont. Specification details are clearly presented and organized and the catalog is profusely illustrated. Write to Vertical Blinds Corp. of America, Dept. AA, 1936 Pontius Avenue, Los Angeles 25, California.

(210a) Soulé Aluminum Windows; Series 900: From West's most modern aluminizing plant, Soulé's new aluminum windows offer these advantages: aluminite finish for longer wear, low maintenance; tubular ventilator sections for maximum strength, larger glass area; snap-on glazing beads for fast, permanent glazing; Soulé putty lock for neat, weather-tight seal; bind-free vents, 90% openings; ¾" masonry anchorage; installed by Soulé-trained local crews. For information write to George Cobb, Dept. BB, Soulé Steel Company, 1750 Army Street, San Francisco, Calif.

(229a) Multi-Width Stock Doors: Innovation in sliding glass door industry is development of limitless number of door widths and types from only nine Basic Units. 3-color folder now available illustrates with cutouts nearly every width opening that can be specified without necessity of custom sizes. Maximum flexibility in planning is allowed by simple on-the-job joining of stock units forming water-tight joint with snap-on cover-plate. Folder lists standard height of stock doors combined with several examples of width. Combination of Basic Units makes possible home and commercial installations in nearly every price category. For more information, write to Arcadia Metal Products, Dept. AA, 324 North Second Avenue, Arcadia, California.

(232a) Unique 16-split-page full-color booklet: Features new fir panel doors recently introduced, including louvre doors, Dutch doors, entrance doors. Also presented are 45 decorating ideas concerning every door in the house. These 1955 fir doors are characterized by design advances comparable to shifting styles in residential and commercial architecture. Their classic proportions and dramatic shadow accents are designed to complement the modern home design. The booklet may be obtained by writing Fir Door Institute, Dept. AA, Tacoma 2, Washington.

(235a) Capri Sliding Glass Doors: A noteworthy advance in building field is new construction of Capri Sliding Glass Doors, making possible comparable costs to window or wall installation. Can be installed into rough opening similar to standard window or door frames. Newly available information describes basic unit as providing choice of combination of anodized aluminum stiles and fine grain ash top and bottom rails, or anodized aluminum rails (both being interchangeable). Developed especially for residential building; equally adaptable for housing projects, custom homes, remodeling construction. For further information write to T. V. Walker & Son, Inc., Dept. AA, P.O. Box 547, Burbank, Calif.

SOUND CONDITIONING

(263a) Acoustical Systems: Non-exposed accessible suspension system for acoustical tile. Flexible, easily installed, low-cost maintenance. Brochure contains specifications, drawings may be obtained from Accesso Systems, Inc., 4615—8th Avenue N.W. Seattle 7, Washington.

SPECIALTIES

✓(249a) Fireplace tools and grates: Profusely illustrated brochure showing firetools, stands and wall brackets, andirons (cast iron), grates and standing ashtrays. Merit specified for Case Study House No. 17. Write to Stewart-Winthrop, Dept. AA, 7570 Woodman Ave., Van Nuys, Calif.

(152) Door Chimes: Color folder Nu-Tone door chimes; wide range styles, including clock chimes; merit specified CSHouse 1952.—NuTone, Inc., Madison and Red Bank Roads, Cincinnati 27, Ohio.

✓(240a) Anthony Bros. pools introduce 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 Bros. Dept. AA, 5871 East Firestone Blvd., South Gate, Calif.

(262a) Layout Tapes: Fully illustrated booklet, "Layout Tapes for Industrial Planning" details correct procedures for transparent and opaque plant layouts. With price list, order form for 75 tapes including structural and material conveyor symbols. Write to Labelon Tape Co., Inc., 450 Atlantic Ave., Rochester 9, New York.

(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, 8030 W. 3rd St., Los Angeles, Calif.

(183a) New Recessed Chime, the K-15, completely protected against dirt and grease by simply designed grille. Ideal for multiple installation, provides a uniformly mild tone throughout house, eliminating a single chime too loud in one room. The unusual double resonator system results in a great improvement in tone. The seven-inch square grille is adaptable to installations in ceiling, wall and baseboards of any room.—NuTone, Inc., Madison and Red Bank Roads, Cincinnati 27, Ohio.

(261a) Tempera Product: Descriptive literature on new tempera product now available. Kit form includes formulas and 2 color wheel, charts for perfect mixing and matching. Refill bottles obtainable. Write Code Color Co., 2814 Dunleer Place, Los Angeles 64.

(977) Electric Barbecue Spit: Folder Rotir electric barbecue spit with seven 28" stainless steel Kabob skewers which revolve simultaneously over charcoal fire; has drawer action so unit slides in and out for easy handling; heavy angle-iron, gear head motor, gears run in oil; other models available; full information barbecue equipment including prints on how to build in kitchen or den. Merit specified CSHouse No. 17.—The Rotir Company, 8470 Garfield Ave., Bell Gardens, Calif.

STRUCTURAL MATERIALS

(211a) New Soulé Steel Stud: Major improvement in metal lath studs, Soulé's new steel studs were developed to give architects, builders stronger, lighter, more compact stud than previously available. Advantages: compact open-web design, notched for fast field-cutting; continuous flanges; five widths; simplifies installation of plumbing, wiring, channel. For steel stud data write George Cobb, Dept. AA, Soulé Steel Company, 1750 Army Street, San Francisco, California.

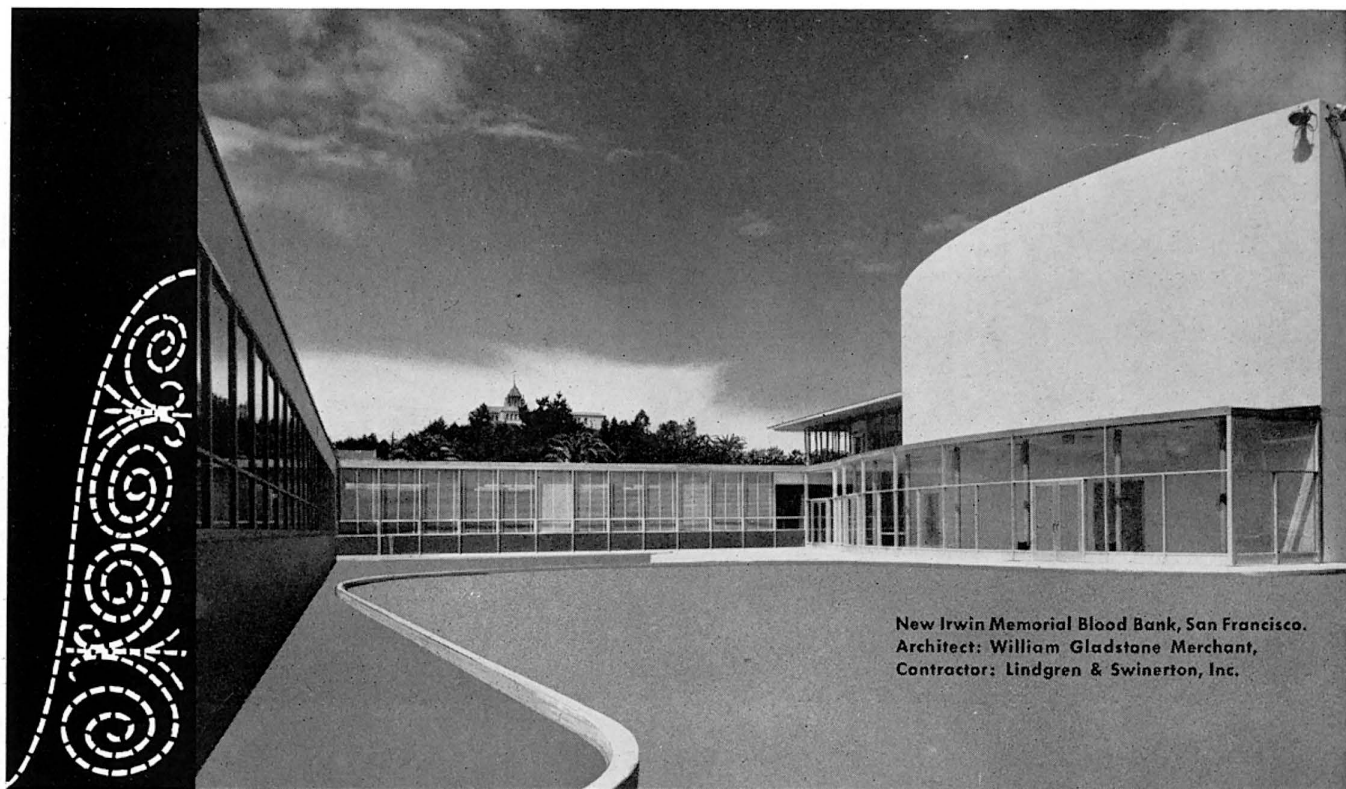
207A—Unusual Masonry Products: complete brochure with illustrations and specifications on distinctive line of concrete masonry products. These include: Flagcrete—a solid concrete veneer stone with an irregular lip and small projections on one face—reverse face smooth; Romancrrete—solid concrete veneer resembling Roman brick but more pebbled surface on the exposed face; Slumpstone Veneer—four-inch wide concrete veneer stone, softly irregular surface of uneven, rounded projections—all well suited for interior or exterior architectural veneer on buildings, houses, fire places, effectively used in contemporary design. Many other products and variations now offered. These products may be ordered in many interesting new colors. Brochure available by writing to Department AA, General Concrete Products, 15025 Oxnard Street, Van Nuys, California.

(243a) A new 1955 four-page basic catalog covering fir plywood grades and application data in condensed tabular form has been released by Douglas Fir Plywood Association. The folder, based on revisions stiffening grade and quality requirements as outlined in the new U.S. Commercial Standard for fir plywood (CS45-55), is designed as a quick easy-to-read reference piece for builders, architects, specifiers and other plywood users. The catalog covers such essential data as type-use recommendations, standard stock sizes of Exterior and Interior types, recommendations on plywood siding and paneling, engineering data for plywood sheathing and plywood for concrete forms, minimum FHA requirements, fundamentals of finishing, and applications for specialty products. Sample copies are obtainable free from Douglas Fir Plywood Association, Tacoma 2, Wash.

(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.

✓(205A) Modular Brick and Block: The Modular and Rug Face Modular Brick, the Modular Angle Brick for bond beams and lintels, the Nominal 6" Modular Block and the Nominal 8" Modular Block, have all been produced by the Davidson Brick Company as a result of requests from the building trade and realization that all building materials can be worked together with simplicity and economy only with Modular Design.

The materials now in stock are available from the Davidson Brick Company in California only, 4701 Floral Drive, Los Angeles 22, California.



New Irwin Memorial Blood Bank, San Francisco.
Architect: William Gladstone Merchant,
Contractor: Lindgren & Swinerton, Inc.

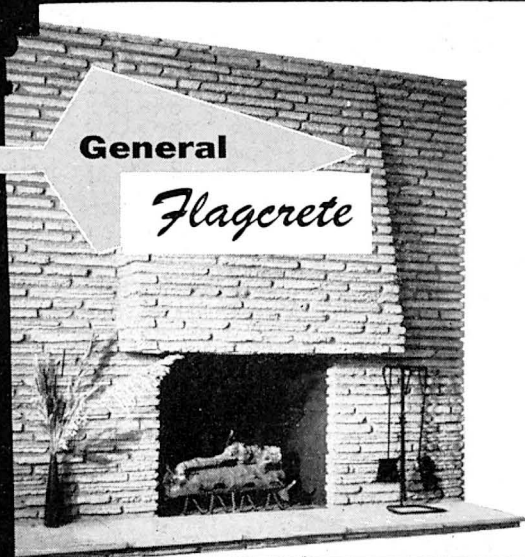
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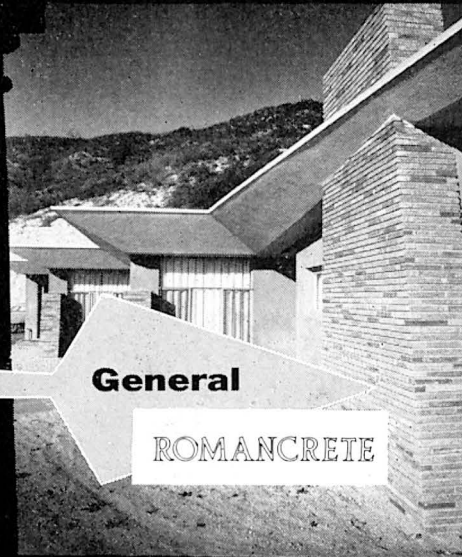
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Lucille Bryant Raport, Architect

General

Flagerete

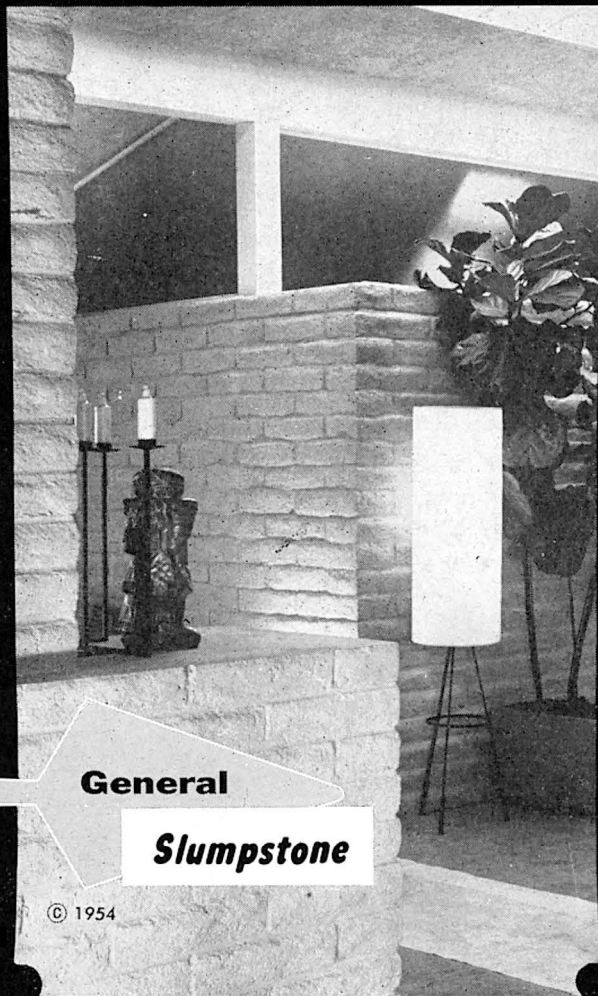


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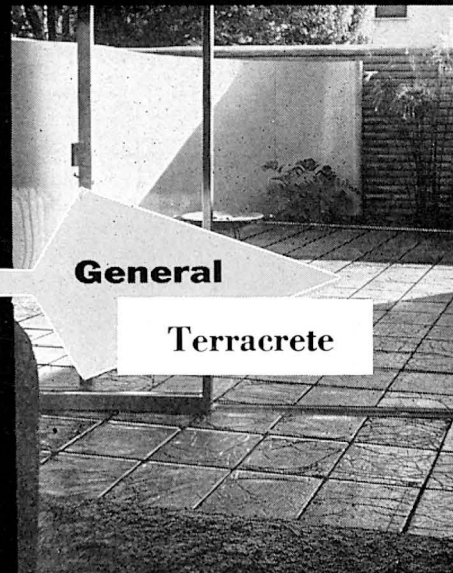


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