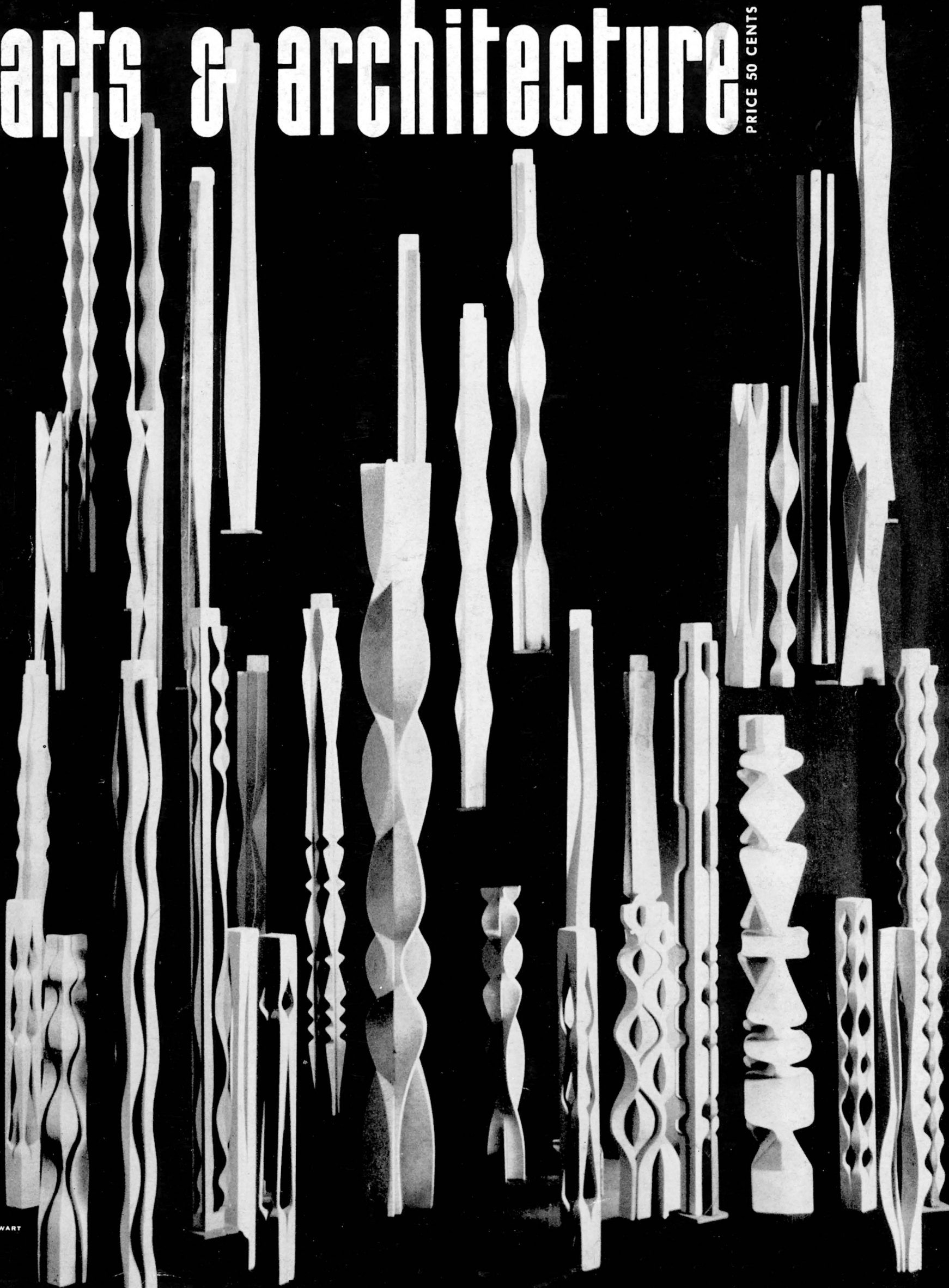


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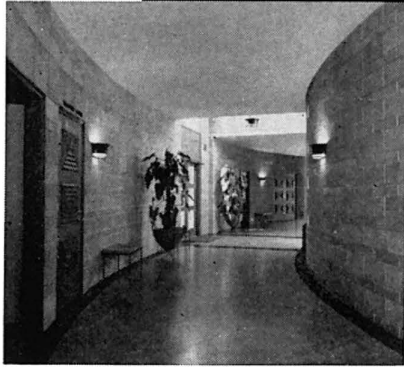
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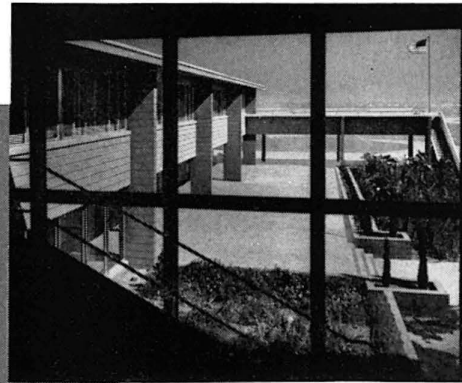


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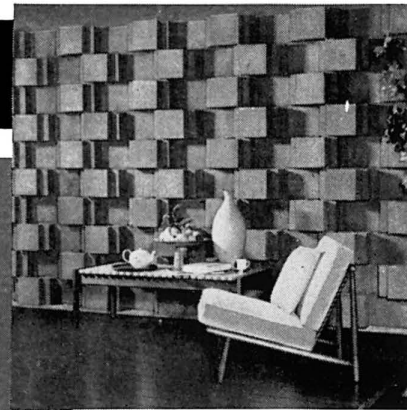


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MUSIC

PETER YATES

NEW MUSIC FOR OLD INSTRUMENTS

I did not hear all the programs of the Festival of Contemporary Music at the University of Southern California during the summer session. The second program offered new works by three of the composers on the faculty, Halsey Stevens, Ellis B. Kohs, and Ingolf Dahl, for harpsichord, for alto recorder, and for the two instruments combined. Two advanced students performed, John Hamilton playing the harpsichord, Lilli Lampl the recorder.

The Partita for harpsichord, which turned out to be the work of Halsey Stevens, might have been composed by a younger contemporary of Johann Mattheson in Hamburg. The young man inclined by taste to the fashionable French music, little pieces for the grand clavecin, rather than to the experimental German music for clavicord, the influence of which nonetheless had imposed on his designs a Germanic abstractness. The split in taste may be observed throughout German music of the period, not least in that of C. P. E. Bach himself. At the suggestion of Mattheson the young man had examined the Partitas of Sebastian Bach, and in the *Alla giga* he has allowed the second section of the movement to break out into heavy fugue. The Partita is an odd collection of movements, several of the titles indicating, besides the French and German influences, an awareness of what was being done by the newer keyboard composers in Italy. This interesting historical model of a style eclectically torn in transition and guided only by reference to the immediate past exhibits the close relationship between the composers who were writing during the obscurity of Haydn and those of the present decade. Except a few harmonies which might not have pleased Padre Martini and a third movement opening that I have heard too often from other composers of less historic interest, Mr. Stevens's *Sonatina piacevole* for recorder and harpsichord might have come

straight from the schools of eighteenth century Milan. Some composers of neo-classical compositions are at pains to display their independence of their sources; Mr. Stevens has been at equal pains not to exceed them.

The *Variations in the form of a suite* by Ellis B. Kohs on the Gluck-Mozart theme *Our Dumb Public*, around which Mozart composed one of his wittiest sets of keyboard variations, eloquently transcribed by Tchaikovsky in his orchestral *Mozartiana*, did not come up to its illustrious models. Only once or twice did it come up for air, and towards the middle of the Sarabande I was afraid it might never come up again. The medium, alto recorder unaccompanied, could have suggested a very different sort of note-play, twirls, leaps, and twists over the whole range of the instrument, which should have made good fun for the listeners, with a slow movement employing all the possibilities of broad intervals. Mr. Kohs did indeed disguise or lose his theme, but he lost his courage as well and clung to the impacted succession of his notes as firmly as to the movement titles of the eighteenth century suite, which the composition in no other manner resembled. His final movement, Bach by way of Hindemith, turned out to be an inverted mirror of the theme.

Ingolf Dahl's *Variations on an Air by Couperin*, for recorder and harpsichord, loomed above these other efforts as the enriched harmony of his original movements looms above the sparse material of his subject, one of my favorite Couperin melodies. Either the variations should partake of the character of the theme or the theme be recomposed to share the enrichment of its variations. Since Mr. Dahl had not indicated to the performers how the Couperin melody should be played, its bareness was made Spartan (or up-to-date American-French neo-classical) rather than classically French. Couperin has gone to greater trouble than any other composer before Haydn to indicate the exact nuance of every phrase he has written, a multitude of slight but severe distinctions, without which his music had better not be played and will certainly afford the player little of the enjoyment or musicianly testing he might find in playing it.

The piece itself, apart from the theme, is a creamy scholar's pudding of enjoyable flavor. The *Lento cantabile* (for an American com-

(Continued on Page 9)



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BOOKS

ROBERT WETTERAU

ANTONELLO DA MESSINA, text by Stefano Bottari, English translation by Guistina Scaglia. 51 illustrations with 39 in color. (New York Graphic Society, \$18.00.)

This first of a new series of art books designed to give authentic, definitive studies of great artists and art masterpieces is a pleasure to behold. The large plates are listed chronologically and fully illustrate Antonello's power, range and development. Among the works reproduced are St. Jerome in His Study, from the National Gallery, London; numerous great portraits outstanding for their penetrating delineation of character; three panels depicting St. Jerome, St. Augustine, and St. Gregory, the Annunciation—from the Galleria Nazionale, Palermo; details from the famous polyptych of San Gregorio.

Mr. Bottari's text discusses the influences and attributions which formed Antonello's style: the influence of Petrus Christus in the early period, the impact of Flemish art and later the influence of Piero della Francesca; also, Antonello's anticipation of Carravaggio in his handling of light. This young Renaissance painter, too, avoided strict symmetry and achieved remarkable illusions of perspective in not permitting perspective lines to converge on the vertical axis. The rapport between Bellini, Lorenzo Lotto and Antonello is also mentioned in a most splendid and beautifully reproduced art book.

GRAPHIS ANNUAL '56-57. International Advertising Art. Edited by Walter Herdeg and Charles Rosner (Graphis Press, distributed in the United States by Hastings House, Publishers, \$12.50).

The 5th edition of this annual maintains the same high-level selectivity as its predecessors. As an inspiring source book for graphic

artists in all fields it remains unequalled, and its ultimate value will be in raising artistic standards in all advertising art. Contents include advertisements, animated advertising, book jackets, calendars, Christmas cards, film advertising, house organs, letterheads, magazine covers, packaging, posters, record covers, television, trade marks, and travel posters. There are 789 entries, a good many in color.

LAYOUT, by Raymond A. Ballinger (Reinhold Publishing Corporation, \$12.00).

Despite the invasion of radio, television and cinema, the undiminished importance of the printed page is elaborated upon by Mr. Ballinger. Illustrated examples showing good design principles of past and present are shown side by side and page composition stressed. Simple forms and symbols—the possibilities of commonplace objects—objects from nature, the doodle, examples from the historical past, all have their place in the development of striking layout. For the designer and student a section on the choice of techniques, and decision to use line, tone, silhouette; the organization of spatial elements; the choice of surface textures or transparency. On layout structure Mr. Ballinger examines coaxial composition and the asymmetrical page, the use of the border; discusses also the importance of communication. The mechanics of layout is given consideration: the tools, the presentation methods and the selection of type. A lexicon of terms is provided and a wealth of grade—A illustrative material in a book on layout very well laid out in itself. We can say unhesitatingly that this is the best book in its field. Raymond A. Ballinger is director of the Department of Advertising Design at the Philadelphia Museum School of Art.

FORMS AND PATTERNS IN NATURE by Wolf Strache (Pantheon Books Inc., \$7.50).

A study of comparative nature-shapes both large and small scale in large earth and sky spaces, the animal kingdom, minerals and

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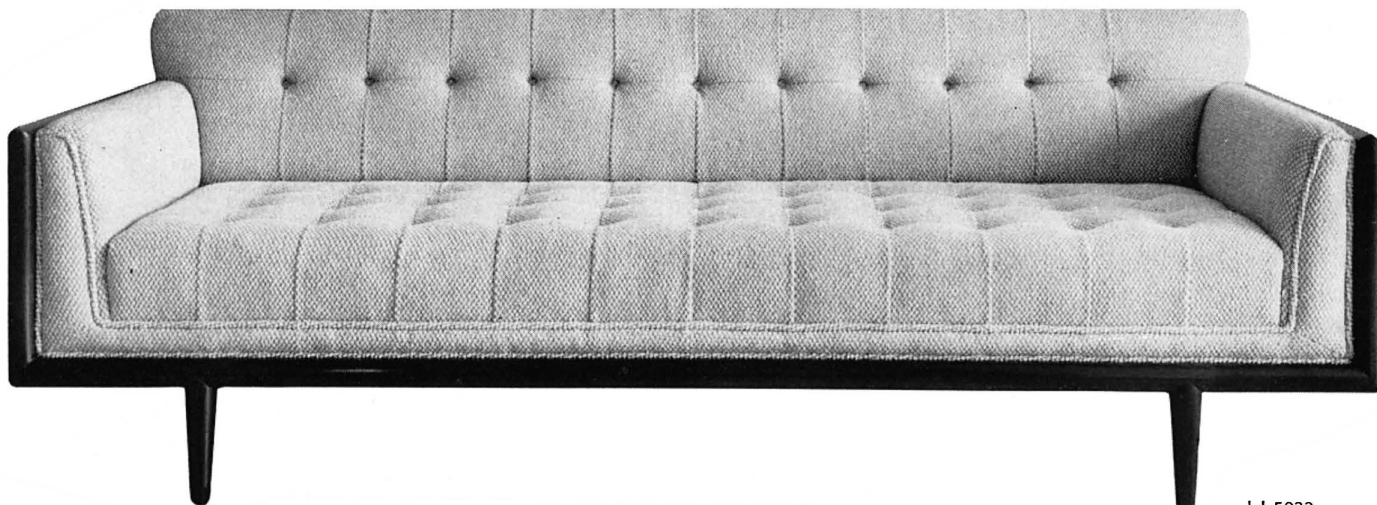
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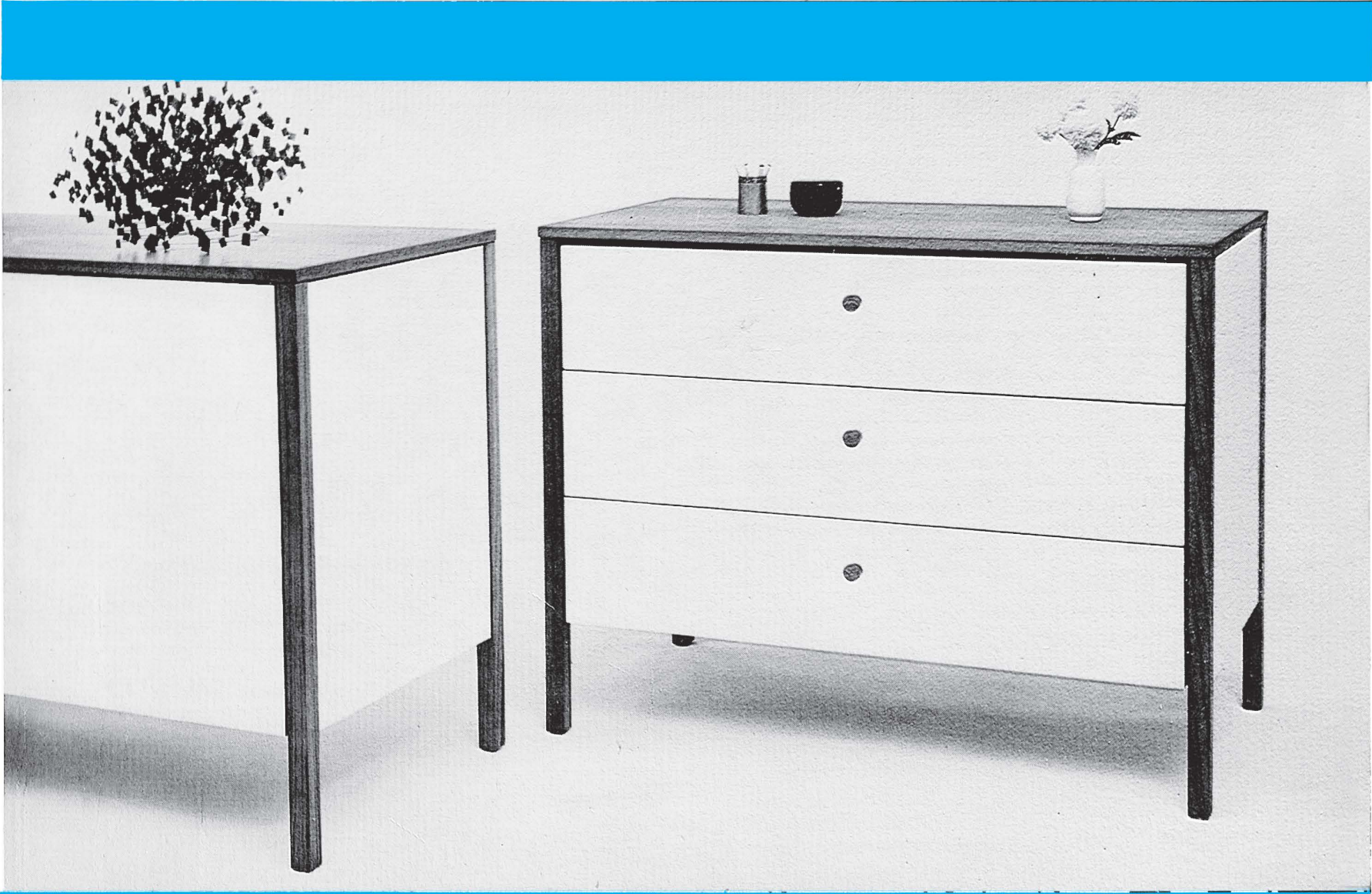
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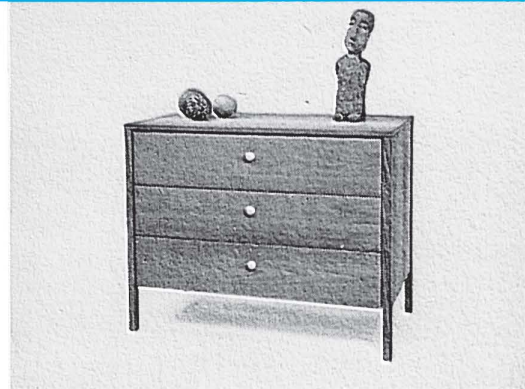


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BOOKS

(Continued from Page 6)

plant life. Striking parallels and resemblances shown in excellent photographic plates of similarities in design between nature patterns in each group. 88 large photographs taken in the main with a Leica. Descriptive list of plates by Dr. Horst Janus.

A TREATISE ON SURVEYING, by Middleton and Chadwick. 2 volumes, sixth edition revised. Edited by Professor W. Fisher Cassie (Philosophical Library, \$20.00).

A standard work brought up to date, each chapter having been written by an expert. Added are new developments in surveying techniques in hydrographic work and the location of aircraft in air survey. Fully illustrated.

TREATISE ON PAINTING (Codex Urbinus Latinus 1270) by Leonardo da Vinci, translated and annotated by A. Philip McMahon, with an introduction by Ludwig H. Heydenreich. Volume 1 text. Volume 11. Facsimile (Princeton University Press, \$20.00). Voluminous in its wealth of ideas and observations, Leonardo's TREATISE transcends all other similar Renaissance works. Mr. Heydenreich states in his introduction that "Leonardo's TREATISE ON PAINTING, then, represents a unique combination of theory and practice, a fusion of the thought legacy of the Middle Ages with Renaissance ideas, welded into a completely new didactic method. Whereas the medieval pattern books consisted of typical examples which could be used as references for the ever-recurrent compositions that the artist of the Middle Ages were asked to paint, Leonardo's illustrations are demonstrations of 'basic categories,' each proved by relative laws. These help to verify the individual phenomenon, so that it can be represented with objective correctness, thus every variation of individual forms and processes in nature, whether these be human, nonhuman, or purely functional can be determined exactly."

DOCUMENTI D'ARTE DOGGI 1955-56. Raccolti a cura del Mac/ Espace (George Wittenborn, Inc., \$5.50).

Works of abstract artists including Bruno Munari, Carolrama, Gillo Dorfles, Baj, Bordoni, di Salvatore, Vigevani/Jung, Vittorio Verga and others in an attractively assembled collection. Contains an origi-

nal serigraph and numerous colored lithographs printed or tipped in on vari-colored papers.

THE MODERN CHURCH, by Edward D. Mills (Frederick A. Praeger, \$9.75).

An excellent and valuable book for the church architect, applying the traditional and historical background of the church to buildings designed in the contemporary idiom to meet present day needs. Examples by le Corbusier, Mies Van der Rohe, Marcel Breuer, Basil Spence; others. 18 line illustrations, 150 half-tones. Recommended.

PICTORIAL ANATOMY OF THE HUMAN FIGURE, by Frederic Taubes (Studio-Crowell, \$3.75).

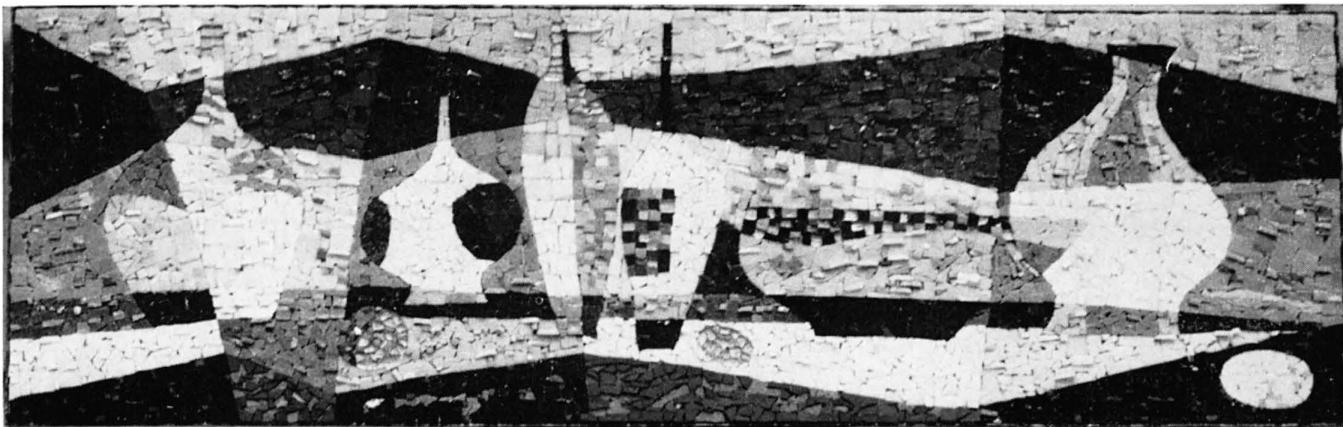
A strange book in which the subject matter has no apparent relationship with the title. The drawings are inept and in some cases so amorphous as to be practically invertebrate. Taubes' demonstration of human anatomy in a "formalized manner" is a weird mixture of schematic ears, geometricized noses, winged feet, replete with Vesalius-like landscape backgrounds and floral tributes (a travesty on Vesalius), topped off with a few dissected manikins. Designed to set art back a few hundred years.

SHAPING AMERICA'S PRODUCTS, by Don Wallance (Reinhold Publishing Corporation, \$10.00).

In these case studies of product creation, prefaced by an inquiry into the evolution of the pattern of product design in an industrial world, Don Wallance emphasizes the importance of the "well-done," combining esthetics with technological advances in production, showing the close relationship between art and industry.

The case studies include the work of Henry Dreyfuss, W. Archibald Weldon, Raymond W. Loewy Associates; the group effort in design departments in large-scale industry: Corning Glass Works, General Electric Company, Jantzen, Inc.; the advanced approach of design and craftsmanship in small-scale industry: Heath Ceramics, D. D. and Leslie Tillett, Amelia Earhart Luggage; Eames, Nelson and the Herman Miller Co., Blenko Glass, H. E. Lauffer Company; case studies of an anonymous design, with an interesting chapter on Coors laboratory porcelain. A section is given to the artist-craftsman as a design-producer, with case studies of George Nakashima, James Prestini, Marguerite Wildenhain, the Natzlers, Sitterle Ce-

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ramics, Betty Cooke, Margaret De Patta, Wharton Esherick. Lastly, the industrial design laboratories of Thoman Lamb, Charles Eames, Marianne Strengell and Leo Mahsoud. Mr. Wallance's book differs from previous works on industrial design which merely paraded new products, in that he combines the development of art in industry with historical evidence to give credence to the importance of fusing business methods, technological advances and art, for the betterment of product creation. Parts of Mr. Wallance's book appeared in the magazine INDUSTRIAL DESIGN. Illustrated.

MUSIC

(Continued from Page 4)

poser how much better to have headed it *Slow and singing*) reflects Mr. Dahl's study of Bach's canonic style in mirrors more true than that of Mr. Kohs. It also showed, in the arpeggiated fantasia preceding the last movement, a more than passing acquaintance with the harpsichord. This is not the sort of music Ingolf Dahl should be writing, for harpsichord or any other instrument, but it does show how well he can write in a learned medium.

The prize for the first half of the program went not to any member of the USC faculty but to Daniel Pinkham, for his *Concerto for celesta and harpsichord soli*, probably the most impressive use ever made of the celesta as a solo instrument. The singing resonances of the celesta, expertly played by Dale Reubart, crossed and intermingled with the contrasting pluck and twang of the harpsichord in patterns of continuously entertaining sound, attractive in design, delightful to the ear, and without false pretensions beyond the relevance of the two instruments. I had read of this piece and am grateful to have heard it.

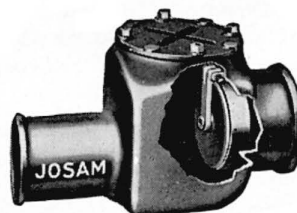
After such sound the Eight Preludes by Frank Martin, a composer born in 1890 who appears to have had no acquaintance with the preludes by Debussy or Scriabin, were as ungrateful as I presume they were also well played by Dale Reubart. The final offering, a group of excerpts from Hindemith's *Das Marienleben*, was performed in that "new music" style which prevents the listener from achieving any direct contact with what is to be heard. My companion, who does not know the song-cycle, remarked that Calypso singing should be left to the Calypsos. On behalf of the composer I apologized, regretting that my friend had not heard the complete work as it was done by Nan Merriman and Ingolf Dahl two seasons ago at Ojai.

Music for the harpsichord by present-day composers follows one of two hard-beaten paths. If it is intended to be modern, it uses the harpsichord as an instrument capable of producing little more than linear effects in a percussively plucked sound pleasingly unlike that of a piano. The effects are intended to be small and light, usually undramatic, and the tone less distinctive than that of a guitar. Composers write this way because they know nothing of the harpsichord as a performing instrument. If the music is intended to be "in olden style," allowing modern harmonies to the extent of a conservative neo-classicism, the composer may have put in a bit more of his spare time fingering the harpsichord, may have some slight acquaintance with its literature as the pieces look on the page, and is usually unable to pull himself away from the belief that there may be some things Bach and Handel left unsaid in the medium, though these he seldom finds. The claim would not be made aloud, but it lies in the unconscious of every composer who flirts in this way with the antique counterpoint. It also lies and lies in the claim, made by composers

(Continued on Page 10)



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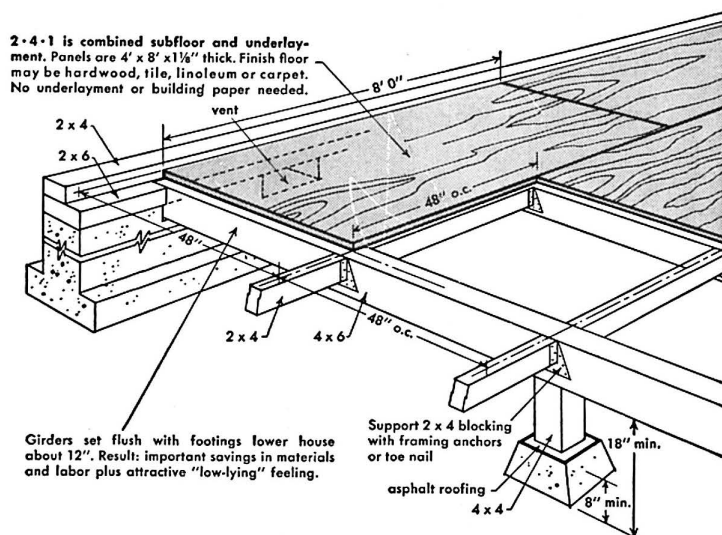
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MUSIC

(Continued from Page 9,

and critics, that Bach was inherently a conservative who turned to the past. Like Beethoven and Schoenberg he soaked up all accessible music and projected it through his own concentrated vision to make music of the future.

The harpsichord is an elegant medium for the sounds and designs of twentieth century music, seldom adequately made use of. Twentieth century composers have been talking for some time about the piano as a percussive instrument. (A young Canadian pianist, Glenn Gould, who has lately won attention in the public prints, has been quoted to the same effect. However his opinion may influence his playing, his piano recording of the *Goldberg Variations* by Bach is the worst I have heard—a negative distinction not, in my experience, easily attained). The greater pianists of every generation, except in their tub-thumping periods, have preferred to use the piano in the style of the best music written for it, as a singing instrument capable of infinite gradation in dynamics, obtaining their effects by contrasts in the production and linking of successive tones and the accumulation of these tones by the pedal. Only one type of registration, that is of producing a different kind of tone, is possible on piano, by the use of the so-called "soft" pedal, called *una corda*—that is to say, *one string*, referring to the older two-string instrument. The tone is not actually muted, the action shifting with the pedal so that the hammer strikes two strings instead of three.

Even Bartok, the most accomplished modern composer-pianist to advocate the percussive use of the piano, performed the greater part of the time in the accepted fashion, although his *Piano Sonata* is the best example, and the most forceful, of piano percussion let loose.

The theory of piano percussion is in most instances, but certainly not for Bartok, an excuse for poor tone production, to the detriment of correct pedaling, upon which Bartok insisted, and for incapacity to maintain the linkage of tones that is the glory of the instrument. The piano percussion theory ties in with and to a degree originates in another modern fallacy, the notion that harpsichord and organ were played by seventeenth and eighteenth century composers—I will agree that some performers of less skill habitually did so—in a semi-staccato style. Some writings can be adduced to justify this belief, but the weight of the music and the character of the instrument argue convincingly against it. The older composers did not indicate many ligatures, so it is thought they did not care to produce a true legato. Couperin, among others, wrote fiercely to the contrary and gave fingerings intended to improve the manner of legato playing. The long ligature speaks to the sustaining pedal; the older convention more subtly and variably speaks to the fingers. Even the Elizabethan composers, who may have used only three fingers of each hand on the keyboard, designed their more serious music after the style of sustained vocal polyphony. To learn how to play a proper legato on the harpsichord is to learn how to make the instrument sound. What is done on piano by good pedaling was done on harpsichord by careful fingering and altered rhythms, knowing which tones to retain and which let go, which notes to separate and which to join, which entrances should be as late as possible, which embellishments should be extended as connectives, and the significance of ligatures and slurs. Very few harpsichordists or organists who have unlearned the congested nineteenth century style of keyboard playing, which by use of pedal can be fully expressive on piano, have gone farther than to put in place of it a continuous staccato or disjunct emission of tones rather like playing the piano without using the pedal. They have not learned to manage the keyboards to accumulate or thin out the sustained tones in the manner used by harpsichordists who had never heard of a sustaining pedal.* Sustaining tone with the fingers (what we might call finger-pedaling) was for example the chief art of the fantasy built up of broken chords and arpeggios, designed primarily for the accumulation of massive resonances and the thinning out of these resonances to allow the appearance of individual tones against a background of sustained tone.

A good piano has only one effect of registration, of changing the type rather than the quality of a sound in a tone; a good harpsichordist may have dozens. Even a single-manual spinet, without stops, or a clavichord will seem to change registration from octave to octave, an effect, commonly used by such composers as Bach and

(Continued on Page 12)

*Or by Mozart, whose pedal, one learns, was a portable pedal keyboard which Mozart carried with him and placed under the piano, to amplify his basses. His sustaining pedal, when he had one, would have been a relatively inflexible knee pedal.

JUNGLE MYSTERY

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MUSIC*(Continued from Page 10)*

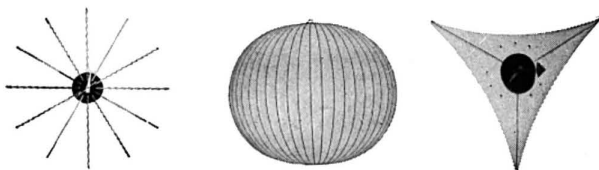
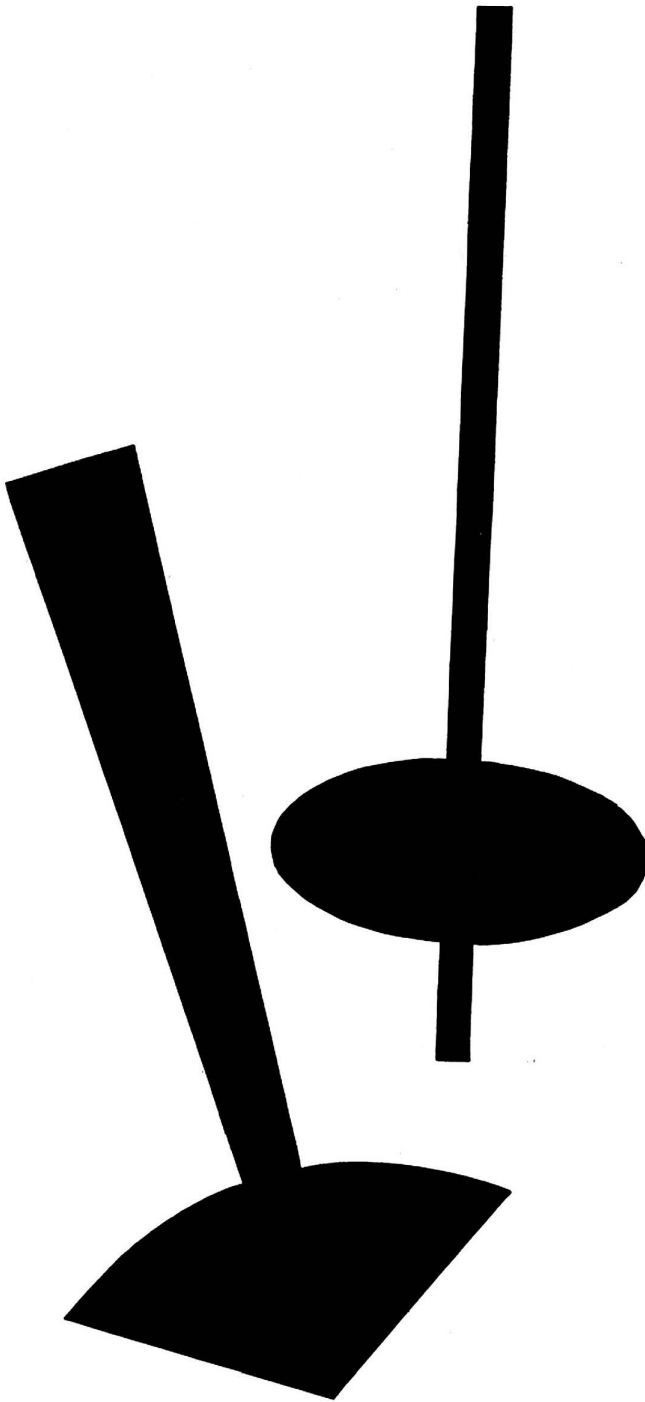
Scarlatti, plainly perceptible on a well-quilled spinet or a fully sounded clavichord but ineffective on a piano or on a harpsichord with buff plectra that have been softened to sound as much as possible like a different sort of piano. Such effects were intensified when the instrument was toned in a meantone or well-tempered tuning (i.e. not equal temperament), which varied in interval relationship from key to key.

To compose for harpsichord, the twentieth century composer should begin not by imitating the surface design of the older composers but rather by studying the manners through which they made the instrument and the music sound. Ingolf Dahl has done this to some extent in his variations, and for this reason his piece stood apart by the consequent enrichment of its texture from the pieces by Stevens and Kohs. The present-day composer should become aware how easily strong effects of dissonance or of contrasting keys or colors or even of strong modulation can be heightened by bringing them through the surrounding texture, instead of merely throwing them against, or after, the preceding notes. By such means Bach was able to compose nearly all his keyboard pieces within the compass of four octaves. From Couperin the present-day composer can learn what subtleties of rhythm are within his grasp through slight rhythmic displacements—he does not, unfortunately, possess the older conventional means, now ignored, of indicating these displacements. He can borrow from Scarlatti the shock and brightness of wide intervallic leaps. If he goes no further back than the late quartets and quintets by Mozart, he can find out the brilliance of short disconnected figures intensified by embellishments, and relying on the highly developed modern keyboard technique he can attempt embellishments that do not lie under the hand but spread, like those of Schoenberg, all over the keyboard.

In modern playing of the older music, as in operatic singing, the one conventional embellishment now most neglected is the acciaccatura, the simultaneous striking and sounding of two tones, one immediately released, a method of brightening and accenting passages that was expected to be supplied in good taste by the performer. For twentieth century music the acciaccatura or multiple acciaccatura, both in close position and from a distance, on single tones and within arpeggios and chords, should be exploited. This is the true percussive effect on the harpsichord. Smacking the keys harder does not intensify the tone; it makes the sound duller by adding the thump of so many jacks against the jack rail. On some harpsichords distinctions may result from different methods of striking individual tones, but the result is not dependable and varies greatly with the instrument; this is of first importance in proper playing of the clavichord. You can do it on harpsichord but you cannot write for it.

With such means at their disposal twentieth century composers should be able to design for the harpsichord music as fresh and original and of their own period, even of the future of their period, as any that has been composed for the instrument in the past. They do not need to write counterpoint as dully as Hindemith, when they have before them the examples of Couperin, Bach, Scarlatti, Haydn, and the Mozart of the keyboard variations.

The harpsichord was the centre of the baroque orchestra, able to fill in for any instrument. The piano became, by contrast, the substitute for orchestra, to which orchestration could be reduced at the hands of Liszt or Alkan; in combination with orchestra it played the part of hero or antagonist.* In our contemporary return to a baroque style of chamber music, to consorts of solo instruments, strings, winds, brasses, and keyboard, variously combined, often with percussion, the piano also must be a percussion instrument, since it is not to be allowed to take the predominant part. Here it is that music may again return to the harpsichord. "A good Bechstein," Mrs. Schoenberg said to me recently, teasing me, "for that I would give up any other keyboard instrument." I refrained from dispute. What in-

(Continued on Page 32)**TIME AND LIGHT**

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*This agonist-hero role of soloist against orchestra, of the human spirit crying out through the sonata, and so on, is fundamental to what the modern listener thinks of as beauty and emotion in music—against which the world's newer artists are in the midst of an intellectual revolt. The individual turns himself inside out, knows himself as the only one of many just like him, not hero, more pathetic than agonist, except that his large failure and little heroism are all he has to live with. So many return to the objective art of cool design and formal counterpoint.

When we set out to give history a world-wide perspective we find our attempts being paralysed by habitual distortions in our ideas of mankind dating from the days of Western world dominance. In Western thinking—and this thinking still dominates too greatly other parts of the world as well—the West was the centre of the world; and the world at large was to be regarded, historically most especially, in the light of its effect upon and contributions to the modern West. Is not the world now Westernized?—we have justified ourselves; not noticing that (even if this were true) there is a great difference of historical structure and perspective between even such a world and the West itself.

All too often men of other regions also have tacitly accepted the Western criterion, trying to show the supremacy of their own region by showing how much it helped to form or is worthy to alter, the West. Such an explicit orientation is now being sloughed off; but it has left innumerable traces in our thinking which do not disappear so easily.

A peculiarly important example of the results of this attitude is the concept of “the Orient.” The word has meant many things; as used by historians it has come to mean, if taken generally, all those urbanized and literate countries of the Eastern Hemisphere, whether south or east of Europe, which were eventually subjected in various degrees to the West-European expansion after 1500. There is no internal point of unity among these people, apart from their relation to Europe, which they do not share as much with Europe itself as among one another; the term is therefore a negative one, like “foreign”; it has meaning only in a common contrast to the triumphant West.

The root fallacy is to take “Orient” and “Occident” for two equal halves of the world. A Mercator projection map of the world, which frankly exaggerates the Western countries in comparison to more southerly lands like India, may encourage this. (One wonders how much less tenacious the conception would be if mapmakers could be persuaded to drop that mischievous projection altogether!) But the new-global maps, as well as the briefest study of linguistic and historical variation, will remind us that the West is historically simply one among several regions in the Eastern Hemisphere, each of the same order as itself in size, populousness, and cultural wealth.

A more explicit cultivation of interregional

history can be vitally important to our historical understanding generally. For a particular historical form of his Westward distortion of our view of mankind has tended to vitiate most of our popular conceptions of general history. The most significant error Westerners have made lies not in ascribing to themselves too much glory or virtue in any particular comparisons with other peoples. More dangerous has been the West’s practice of reading the very structure of history in a distorted fashion, for this has been carried over unconsciously even by non-Westerners.

The grosser misconceptions which have accompanied the Westward pattern of history are now less inclined to judge the fate of Greek culture by its eclipse in Merovingian Gaul. But the illusions which it fostered were a strong influence making possible the Nineteenth-Century theories of history which still tend to hold sway. The idea of inevitable and triumphant progress probably owes something to the practice of watching only those nations, as civilization spread, which were just taking on its graces; a partly borrowed progress always seems fast.

Those conceptions of history which reduce it to stages or cycles owe far more to these illusions. The famous fall of the Roman Empire seems to be the kernel from which such conceptions have grown. Spengler decried a Westcentred history, yet accepted the limitations imposed by the Westward pattern, allowing no history to India or China in the last two millennia. Toynbee is anxious to recognize the continuing evolution of the non-Western nations; yet he seems to have used the “Fall of Rome” as his starting point, and hence involved himself in a system of distinct societies, definitively rising and falling, which naturally bristles with fundamental anomalies. Thus the distortion has infected his work, even though he guarded explicitly against the illusion of the “static East,” as well as escaping the imposing list of those whose data suffers a displacement in *space* which they treat as if it were a change merely in *time*.

The point is that *from a world-historical point of view*, what is important is not European history in itself, however important that be for us all; but its role in interregional history. This role has latterly been momentous; but our very concentration on internal Western history has commonly obscured our view of the West as one dynamic region among others in the wider world.

EXCERPTS FROM G. S. HODGSON-UNESCO

ROOTS OF CALIFORNIA CONTEMPORARY ARCHITECTURE

BY ESTHER MCCOY

FROM AN EXHIBITION OF THE 1900 TO 1935 WORK OF IRVING GILL, GREENE AND GREENE, BERNARD MAYBECK, RICHARD NEUTRA, R. M. SCHINDLER AND FRANK LLOYD WRIGHT, SPONSORED BY THE LOS ANGELES CITY ART DEPARTMENT AND ARRANGED BY THE ARCHITECTURAL PANEL

The shape of architecture in California has been largely determined by several men, whose work in the first thirty years of this century is brought together by The Architectural Panel and exhibited under the auspices of the Los Angeles Municipal Art Department.

These pioneers of contemporary architecture are Bernard R. Maybeck of the Bay Area, William Sumner Greene and Henry Mather Greene of Pasadena, Irving J. Gill of San Diego, R. M. Schindler and Richard J. Neutra of Los Angeles, and Frank Lloyd Wright.

Architecture is a continuous art, and if the tap root of California work is deep in its own soil, other roots extend to Chicago, and an intricate network links it to Japan, India, Austria, Florence.

In time, thirty years separated the men. Maybeck was born in 1862 and Neutra, the youngest, in 1892. Between them come Wright, born in 1868, the Greenses and Gill in the seventies, and Schindler in 1890. Their birthplaces were separated by an ocean. Three were Mid-westerners, Wright of Wisconsin and the Greenses of St. Louis. Maybeck was born in New York City and Gill in Syracuse, New York. Neutra and Schindler were both born in Vienna.

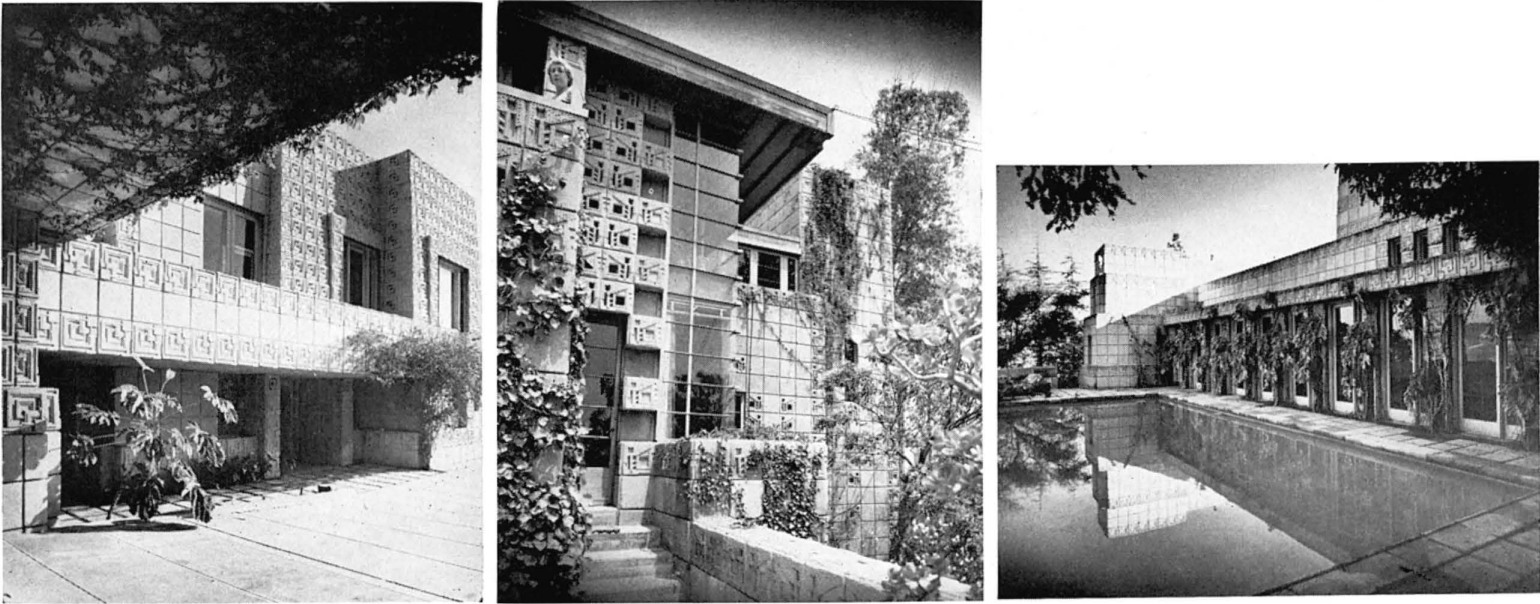
It is interesting to note that all of these men, except Maybeck and the Greenses worked at one time in Chicago, where new architecture made its first great opening statement. In spite of the brilliant beginnings, the new was soon eclipsed by the old classical forms. Following this, California became the seed bed for contemporary architecture.

Louis Sullivan, the man Wright called Master, wrote Schindler in 1921 from Chicago, "The situation here resembles a corpse; it has become terrifying. There may be a future, but there is no present. Congratulations on having work to do. Enforced idleness is a nerve-killer."

The seven found work to do, not only in building but in educating the public. Neutra and Schindler remembered the way Adolf Loos had rented a hall in Vienna to plead before the public his right to break with tradition and build in a new style. Wright, who called himself the pencil in Sullivan's hand, and Gill who had worked with Sullivan on the Transportation Palace for Chicago's Columbian Exposition in 1893, knew the courage required of Sullivan to dig down through the eclectic rubble to his own style. The seven came to California prepared for a struggle in establishing their architectural faith.

They might be called a group, but architecture comes out of the minds and feelings of men rather than groups. The contribution of each was so personal that there is no obvious common denominator, except the dignity with which each worked, dipping always from his own well.

All were capable of taking the most ordinary material and raising it to honor, and time has proved it a lasting honor. Wright with his ornamental concrete blocks; Gill with his perfectionist work in poured concrete; Schindler turning the common language of studs and plaster into startling plasticity; Maybeck expressing classical forms in industrial materials; the Greenses performing magic in wood in forms reminiscent of the Colonial English bungalow and the exposed structure of the Japanese; Neutra working in Gunitite and steel, and demonstrating that a house does not take its worth from its material but from the way it is used.



Wright's four concrete block houses were built in the twenties, following his Imperial Hotel. In Japan, Wright made use of a common material for the hotel, a lava underfoot that "yielded to any sense of form the architect might choose to indicate." In California he rescued concrete block from factory construction and turned it into a noble building material. The plastic properties of concrete made it "susceptible to the imprint of the imagination," he says.

He speaks of the concrete block construction as a kind of weaving, in which steel is the warp and concrete blocks the woof. The Millard house, the Ennis, Freeman and Storer houses were, he says, hollow shells for living in, "the sense of interior space coming through the openings, all to be woven as integral features into the shell. The rich encrustations of the shells visible as mass, the only true mass of architecture. Here a legitimate feature of construction."

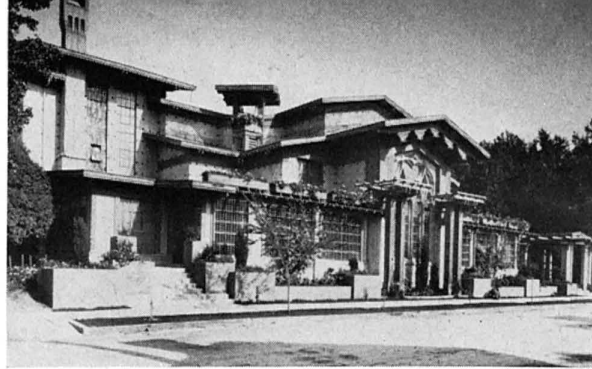


When Gill came to San Diego in 1893, fresh from Sullivan's office, he called California "the newest white page turned for registration." His first job, the Normal School, was astonishingly like Sullivan's Transportation Palace on which he had worked, but as he lost himself in a love for the West his design soon matured into a personal and unique style. The effect of the California missions is clear in his developing work, the quiet surfaces, the proportions, the integration of the arches into his style, the volumes brought into a single mass.

Gill did not lack for work. He executed no less than 50 large buildings in San Diego, and over twice as many houses. His greatest work is the La Jolla group: Woman's Club, Art Center and Bishop School.

Concrete had been introduced into the United States in 1900, and Gill's first poured concrete house came in 1907. His earlier work in this material made use of Sullivan-esque ornament, but later as his own thinking sharpened he turned away from all ornament, and his buildings were expressed entirely in terms of their own material. His surfaces were soon without projections of any kind, their beauty depending upon scale and proportion. Loggias and strong arches were counterpoint to his masses; finely scaled pergolas, as rugged as his surfaces were clean, invariably related house to garden.

He wrote in 1916, "There is something very restful and satisfying to my mind in the simple cube house with creamy walls, sheer and plain, rising baldly into the sky, unrelieved by cornices or overhang of roof." Gill urged us to return to the source of all architectural strength: "the straight line, the arch, the cube and the circle—the mightiest of lines."



Beaux Arts was synonymous with borrowed forms among the modern architects, but Maybeck was always proud of his years of study at the Ecole des Beaux Arts in Paris, and no one has ever carried the burden of the past more weightlessly than Maybeck. Sieved through his extraordinary personality, classical themes became legends of our times.

He was in his early thirties when he arrived in San Francisco, and in 1898, at the age of 36, he was appointed University of California's first instructor in architecture. Out of this post grew the present School of Architecture. He soon gave up teaching to open his office in Berkeley, and before long the whole north side of the city was dotted with houses "hiding among the greens and browns of the background," as he said a house should. He built of natural materials because, "The artificially finished house must be denuded often or look shabby, and unless a work of art, its brilliancy often advertises its weaknesses."

His most modest house, built at a cost of \$300, was studs with a skin of cement sacks soaked in and lightly coated with concrete. In this same whimsical vein he preserved, when remodeling a house partially destroyed by fire, smoke stains whose subtle mottling was more beautiful to him than any paint.

Maybeck's great Church of Christ, Scientist, 1910, demonstrated his genius at revivifying past forms. It is fantasy, in the large sense that Gaudi is fantasy, and since architecture is the most compromising of the arts (compromise to site, to climate, to client, to building code) fantasy has found little play in the United States. A recent notable example, the cave house of Juan O'Gorman, with its fairyland of mosaics, is in Mexico.

Maybeck's Palace of Fine Arts, San Francisco, 1915, is a change rung on a classical myth, enhanced and made believable by the water from which it appears to rise, as in a painting by Claude Lorrain in which one approaches the pathos of the past by water.

One cannot fail to note the ecclesiastical feeling in all of Maybeck's work, even his first Women's Gymnasium at University of California, where a series of shake-covered pointed arches led the eye to an altar-like platform.



When the young architects Charles Sumner Greene and Henry Mather Greene came to California in the late nineties they designed for a land that was almost treeless. Their first work was based on the English country house, but while working within the limits of the conventional house they had begun to develop their unique design vocabulary. It grew in time into a rich language, which they were to use with great fluency.

While Frank Lloyd Wright looked upon each design case as an exception, which challenged him to find a new solution, often involving a new system of construction, there was a structural continuity in the work of the Greenes. They did not depart from their language, they deepened it.

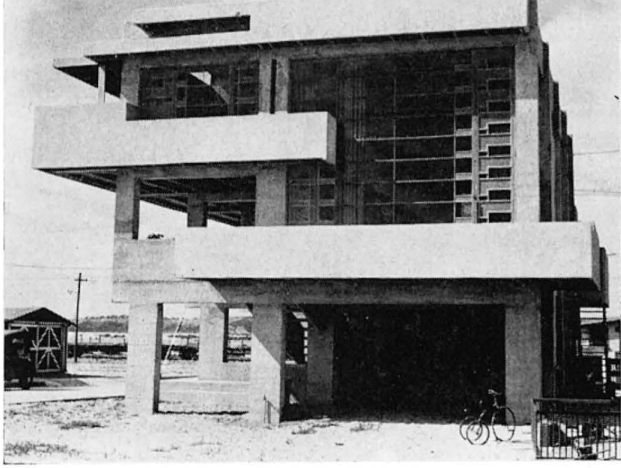
The Greenes were a part of the craftsman's movement, and it is reflected in their honest use of materials. What lifted the architects above any movement is their understanding of details as part of a whole, for in their work nothing stands out as a detail. Yet there is a naturalness and inevitability in all their solutions.

In the use of their design vocabulary they did not distinguish between indoors and outdoors. Identical spliced and doweled joints appear in garden trellis and exposed ceiling beam. There is no effort to suppress the joint, they always emphasize it and enhance it. One material is never used to hide another. Each is expressed openly, stating its function, and each member by its size declares its capacity to carry its load.

Greene and Greene paid grave attention to the foundation. How a house joins the ground is embarrassing to most architects, and few have looked for a solution. The Greene houses met the ground in transitional stages. Field stone, clinker brick, with brick or concrete cap, lead the house into the earth, to become a natural part of it.

"I seek till I find what is truly useful, and then I try to make it beautiful," Charles Greene said.

To arrive at what is appropriate is a slow process; it takes time; it takes deep concern; it takes greatness. And these the Greenes had.



While still a student at the Imperial Technical College in Vienna, R. M. Schindler discovered the work of Frank Lloyd Wright and promised himself he would come to the United States. This he did, after working for a while in Vienna for the firm of Mayer and Mayer. He arrived in Chicago at the age of 23, and his first job was with Ottenheimer, a former Sullivan man. Wright found an opening for Schindler when the Imperial Hotel was on the board, and Schindler remained with him for four years. He came to California in 1920 to supervise the construction of the Barnsdall house, and decided at once that he wanted to practice architecture in Los Angeles.

He says of his first house (his office and also his residence) on Kings Road, 1921: "At the time, the accepted system of construction was to clothe the structural core with layer after layer of surfacing material until the skeleton was hidden beyond recognition. This approach transforms most American buildings into starched sheets of oil paint endlessly recoated. The building loses all possibility of growth, becomes an impersonal and ageless spectre."

His request that the materials of the house in which he worked so many years be kept in their natural state was, unfortunately, not granted; today the redwood and concrete have become "impersonal."

The great majority of Schindler's houses were for hillsides, the later ones skin houses, in which the form was governed by shapes characteristic of the skin rather than skeleton. One of his skeleton houses of the twenties was his Kings Road house, in which he used a pre-cast concrete tilt slab, with ribbons of glass at the joints "for space to come through." The Lovell house, Newport Beach, 1926, is hung from concrete pylons, a system used in order to raise the living area above the public beach. The Wolfe house, Avalon, Catalina Island, 1928, has floors and terraces of reinforced concrete poured on iron forms. This house floats above the hillside site, and the atmosphere rather than the mass becomes the space form, Schindler said.

The early contemporary architect accepted his leadership, but each longed for followership. This was satisfied to a great degree in Schindler by the students he took into his drafting room. Architectural students sometimes worked on his construction crew as well as in his office. It gave him pleasure to design in the presence of a small devoted audience. The preliminary design was always to him the vital one, "the very crux of the architect's contribution . . . his main creative effort," he said. He planned quickly, drawing on tracing paper pinned over the engineer's contour map of the lot, concentrating on plan, the heart of the house, and once the controlling theme was found, how to build it was a later step, to be solved through his highly developed engineering talents. Often his drawings went to the Building Department for checking before the fenestration was finished, for glass areas were subject to change as the house rose. He reworked plans endlessly, but his site planning and floor planning which revealed his genius, sprang into existence in a few moments.

Each of his buildings testifies to the patient and continuous supervision he lavished on them, and working always through sub-contractors he was unable to leave his jobs for more than an occasional weekend in his thirty-two years of practice in Los Angeles. While he was dying drawings were taken to his hospital room for him to revise.

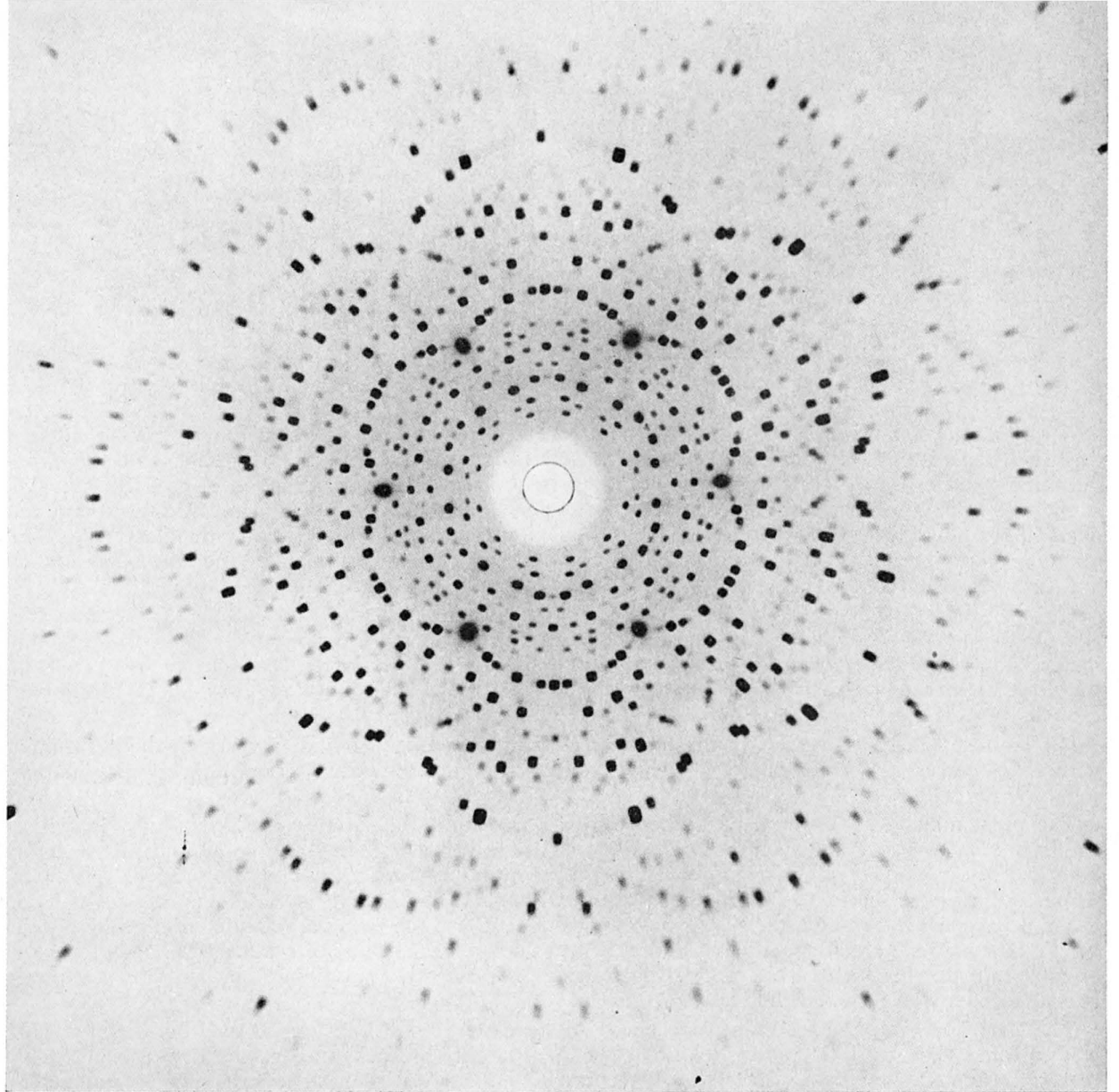
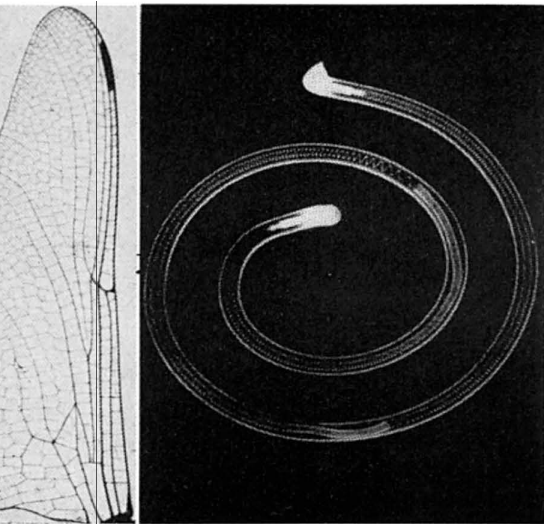


Richard J. Neutra was educated in Vienna and Zurich, and worked with Eric Mendelsohn before coming to the United States in 1923. He became a licensed architect in California in 1926, and his famous house for Dr. Lovell (also a Schindler client) in 1927 was so widely published that California soon enjoyed a prominence as the seat of new architecture.

X-Ray Diffraction Pattern of Beryl.
Laue Photograph: Eastman Kodak
Company

Dragonfly Wing
Photograph: Kenneth Snelson

Faulty Heating Coil
Radiograph: General Electric X-Ray
Corporation



ART AND SCIENCE

BY GYORGY KEPES

"No sooner do I form a conception of a material or corporeal substance, than I feel the need of conceiving that it has boundaries and shape; that relative to others it is great or small, that it is in this place or that; that it is moving or still; that it touches or does not touch another body; that it is unique, rare or common; nor can I, by any effort of imagination, disjoin it from these qualities. On the other hand, I find no need to apprehend it as accompanied by such conditions as whiteness or redness, bitterness or sweetness, sonorousness or silence, well-smelling or ill-smelling. If the senses had not informed us of these qualities, language and imagination alone could never have arrived at them. Wherefore I hold that tastes, colors, smells and the like exist only in the being which feels, which being removed, these qualities themselves do vanish. Having special names for them we would persuade ourselves that these have a real and veritable existence. But I hold that there exists nothing in external bodies of exciting tastes, smells and sounds but size, shape, quantity and motion. If, therefore, the organs of sense, ears, tongues and noses were removed, I believe that shape, quantity and motion would remain, but there would be no more of smells, tastes and sounds. Thus, apart from the living creatures, I take these to be mere words."*

In the thought of the seventeenth century are the seeds of the widely held belief that art and science are polar opposites, mutually exclusive in aims, methods and results. The view that quantitative, measurable attributes of things are real and that direct sensory experience is unreal and untrustworthy leads quite logically to a value judgment favorable to science and unfavorable to art. The one becomes approved for its rationality and precision, the other distrusted as subjective, untestable and prelogical. This distinction, which Galileo drew, was an intellectual necessity for the development of the exact sciences. But the separation of art and science in our minds is no longer useful and will not bear close scrutiny.

History shows us that these two creative human activities are interdependent, no matter which of the two the times emphasize more strongly. Each achieves stronger growth when nourished by the other. Notably, the renewal of scientific inquiry that flowered in the achievements of the past five centuries was led by great painters, sculptors and architects of the Renaissance. The work of Masaccio, Alberti, Pollaiuolo, Leonardo and Durer was as much systematic inquiry into the structure of the natural world as it was artistic creation. Their concrete and communicable vision of natural order proved as fateful for the development of science as for the development of art; it can be called art or science with equal validity. At certain times in history, more attention was focused on art than on science; today, those relative positions are reversed. At no time, however, has one existed independently of the other. In our day, the artist and the scientist are almost never the

*Galileo Galilei, *Il Saggiatore*, 1624

same person—a circumstance which obscures but does not alter the connection between art and science.

Art and science are ordering activities of the human mind. Through sifting and organizing the order relations impressed on us by our senses, they distill our significant experience and bring us insight into the order relations of nature.

Science attempts to discern order relations in nature, making verifiable statements about nature's processes. Data are set out in terms of measured quantities; and the found order is expressed in conceptual structures.

Image-making is basic for art. It is basic for science, too, defining goals, delimiting fields for study and providing sense models which anticipate the corresponding scientific statements of order relations. On the image-making level, the difference between pre-scientific and pre-artistic perception of order is a difference of attitude, an attention to structure, on the one hand, to the felt quality of experience, on the other. There is no need for these attitudes to exclude each other. Structures can be understood and qualities felt in a single, balanced perception of order, in an experience which has characteristics of scientific and artistic activity both. This balance is also possible on complex levels; one and the same set of created symbols can evoke an intense emotional response to the richness of its sensed patterns and convey an idea of logical structure.

Art attempts to discern order relations in nature, creating images of our experience of the world. Data are set out in terms of recreated sensed forms; and the felt order is expressed in sensible structures exhibiting properties of harmony, rhythm and proportion.

Images are the starting point of all our thinking and feeling. Of a feeling of warmth, the smell of milk, the touch of hands, the looming of features, the child compounds a unified picture of the mother. Image making—the integration of sense data into a coherent experience of something—is thinking and feeling on the most elementary level. Through images we participate in the world, responding emotionally to its sensible qualities and rhythms. We mobilize ourselves to recreate its felt patterns. “Mommy,” the child says. Through images we become aware of the world's forms and structures. We mobilize ourselves to develop ideas and concepts. “Mommies,” the child says later on, filling out a model of adult femininity.

At nearly all times, some men have produced work which combines profoundly moving patterns of sense with a profound perception of mathematical order. Bach, in music, develops the exquisite mathematical structure of a fugue with the strictness of a geometrician building a system from a set of postulates. Poussin, in painting, presents us with grandly patterned sense models of a Cartesian world.

At certain times, both in Western Europe and in the Asiatic East, a kind of cultural balance was reached, a confluence of intellectual and emotional life. In Egypt of the El Amarna period, in Sung China, in Renaissance Italy, men felt the emotional excitement of a world seen fresh and new, and tried to explain its order. In single, fused statements they recorded nature's structural articulation and expressed its harmonies and moods. With a landscape painting by Hsia Kwei or a drawing by Antonio Pollaiuolo, we enter a society in which scientific and artistic attitudes dwelt together.

But, East and West, the trend of centuries has brought imbalance of intellect and feeling. The East has, in the main, moved in one direction, the West in another. The anatomy of the world preoccupies us in the West; our culture centers upon objective understanding of substance, forces and structures, to the impoverishment of our subjective appreciation of patterns and rhythms. The East has concerned itself less with the world's structure than with its physiognomy, and has institutionalized, as the West has not, highly developed appreciation of its harmonies, its tastes and flavors.

Today, with all lands knit together by new tools of communication and world-embracing economic patterns, it has become possible more than ever to exchange attitudes as well as ideas. A more fundamental interchange of Western structural discipline and Oriental emotional discipline could contribute to a cultural equilibrium—on a higher level, this time, with a heightening of our ability to understand the world and read its significance.

The Far Eastern discipline of sensibilities grew out of the feeling that men lived most fully by opening themselves to the universal rhythm of Nature, becoming one with trees and stones and animals. Nature was approached and entered through rapt contemplation of its forms, to the end of visualizing the world in terms not of likeness but of what the Chinese called “rhythmical vitality”—the essence of things in their characteristic life of movement. The patterns seen were not frameworks binding details but patterns of living order. The story is told that Rykku, the Japanese master of the tea ceremony, instructed his son to clean the garden before the arrival of guests. Inspecting the immaculately finished result, he said to the youth, “This is not the way,” and shook a tree so that leaves fell in a free pattern across a path. Thus, the man-made structural order of the garden was joined with the natural order of living forms.

At times, Western poets and thinkers have given us a vision of this accord between man and nature. “The greatest good,” said Spinoza, “is the knowledge of the union which the mind has with the whole of nature.” Thoreau said, “Some time, as I drift idly along Walden Pond, I cease to live and begin to be.”

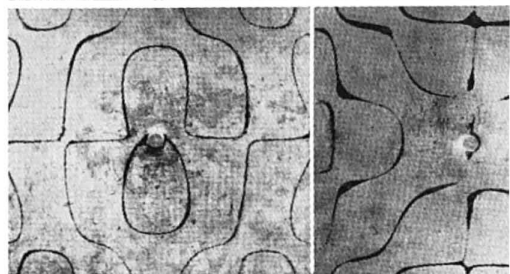
In the West, the visualization of our experience has been looked at mainly as the fashioning of representations of nature, likenesses of the things around us. This is the Aristotelian tradition; and, particularly since the Renaissance, it has been assumed that fidelity to the optical appearance of

(Continued on Page 32)

79 *Earth Pattern*, Aerial Photograph:
Ralph Samuels



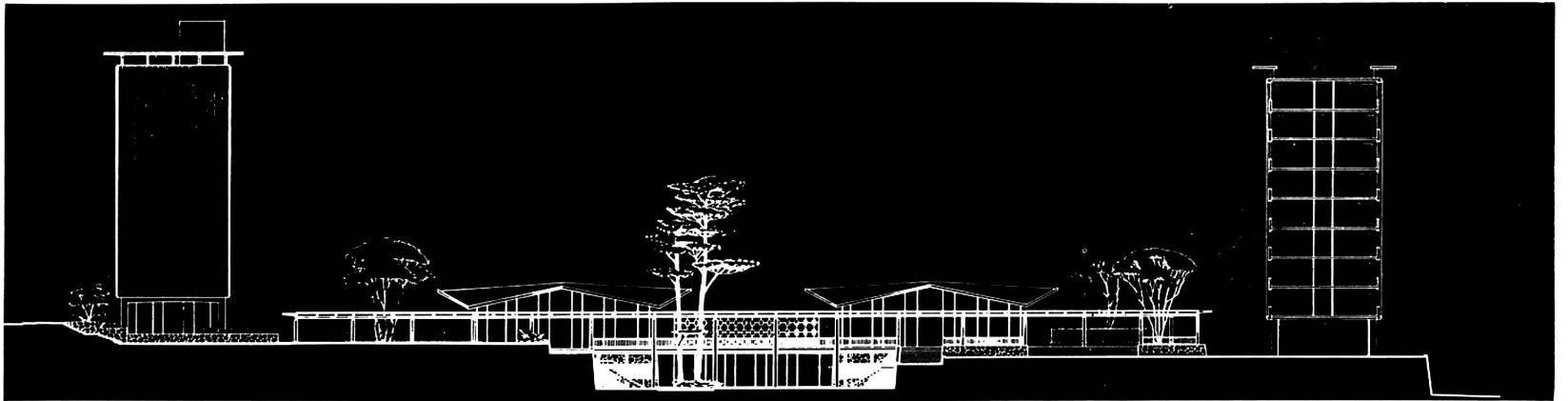
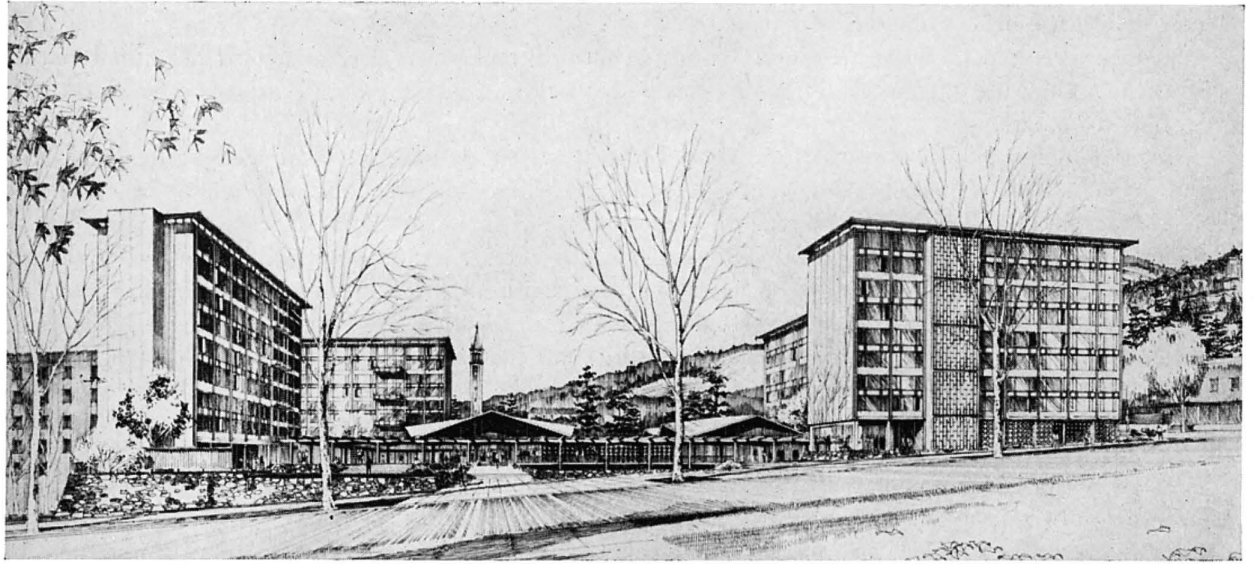
Slime Mold, Photomicrograph:
Dr. R. Vishniac



Chladni Figures
Grains of fine sand agitated by motion by drawing a violin bow across the edge of a surface are seeking rest at the points where there is least motion on the surface.

1

WARNECKE and WARNECKE

COMPETITION FOR A
UNIVERSITY OF CALIFORNIA,
BERKELEY, CALIFORNIAREPORT OF THE JURY FOR THE COMPETITION
FOR A RESIDENCE HALL FOR THE UNIVERSITY
OF CALIFORNIA.

The Jury met with the Professional Adviser on August 13 and 14 at the College of Architecture, in accordance with procedure as indicated on the program. A chairman was elected and preliminary examination of all entries was made by each juror individually.

It was obvious immediately that many separate and complex conditions were contained in the problem and it was agreed that each entry should be examined with particular reference to the following, not necessarily in order of importance:

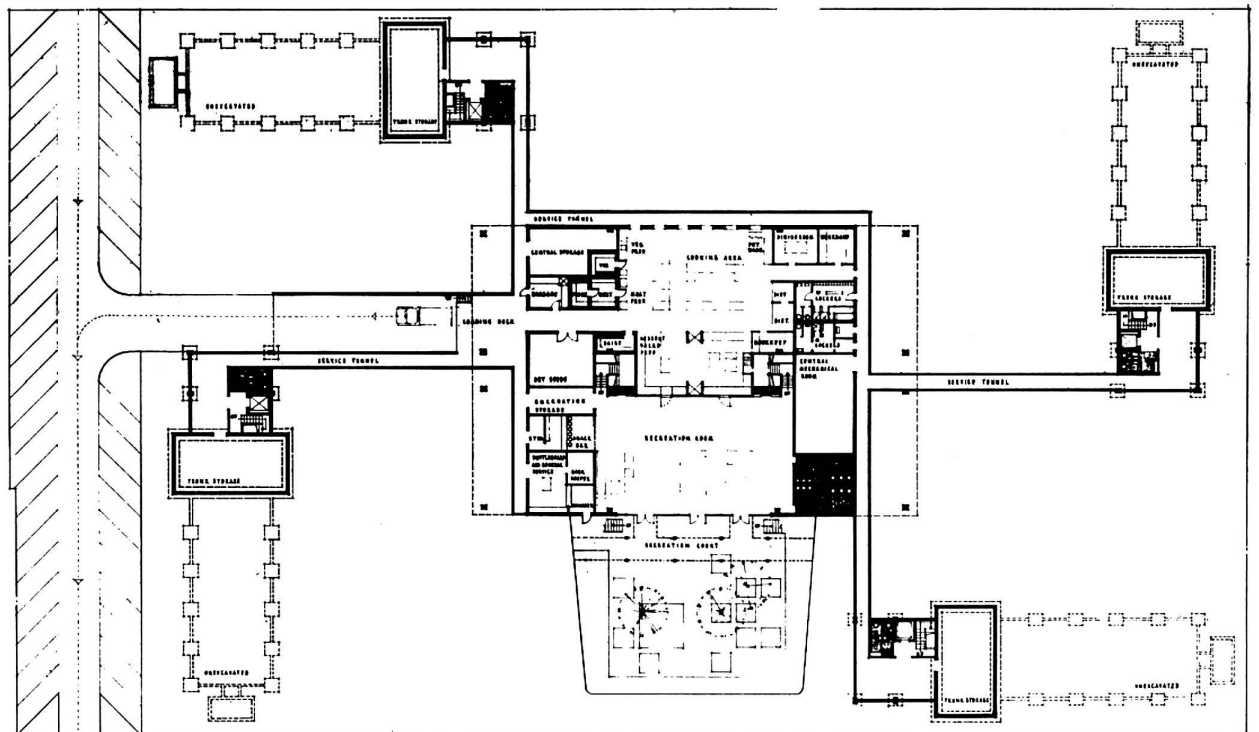
1. Utilization of the site, orientation and relation of the whole to the neighborhood and to the University.

2. Organization of the separate units and their inter relation.

3. The organization and plan of the common facilities and service areas.

4. Six of the solutions were based on multiple buildings, separated living quarters in two to four individual buildings, with a central core for common facilities.

One entry solved the problem in terms of a single structure embracing all the requirements in a remarkably



BASEMENT PLAN

"The key problem of the Residence Hall design lay in the site planning. Was it possible on so limited a site to create a residential complex of a scale and character appropriate to university life in Berkeley?"

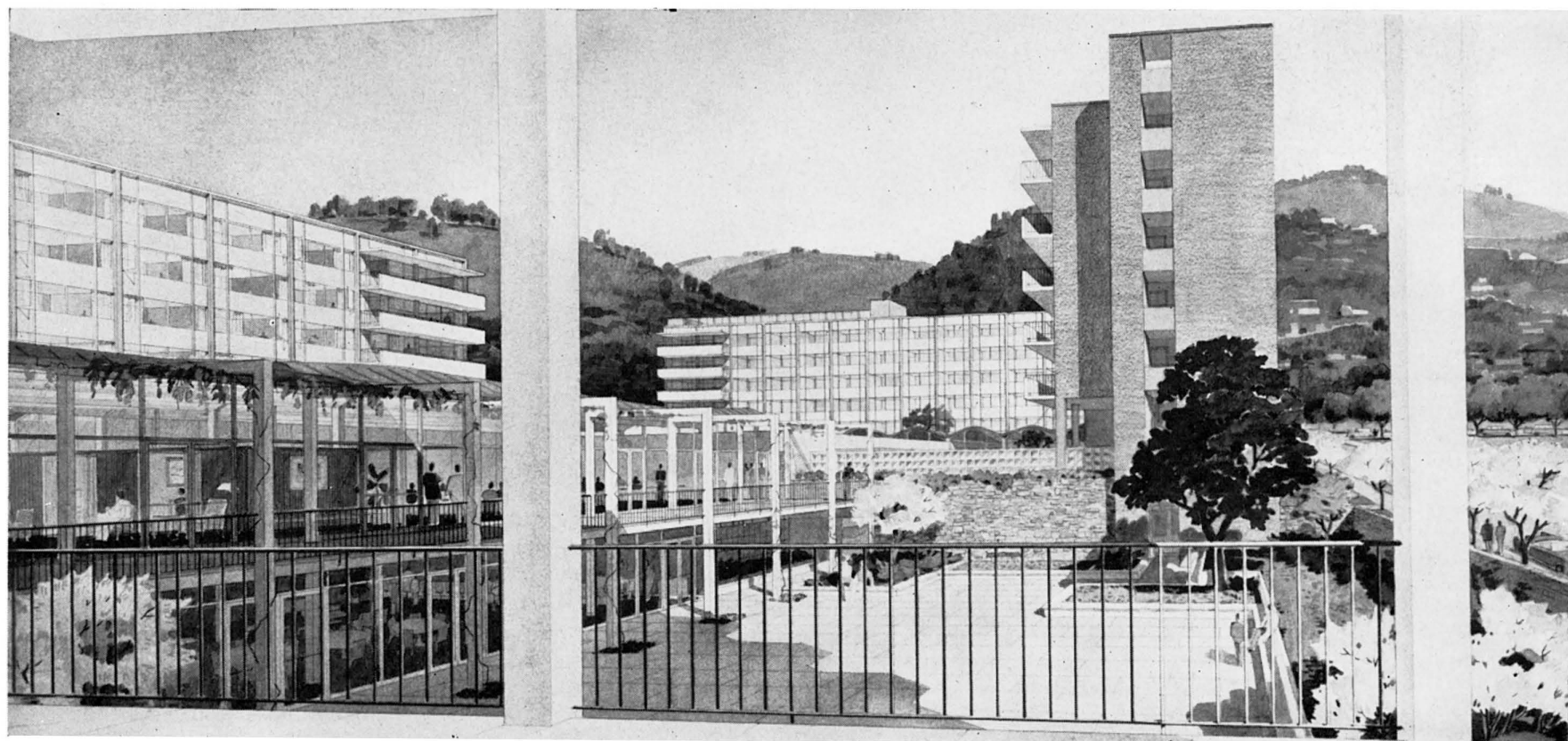
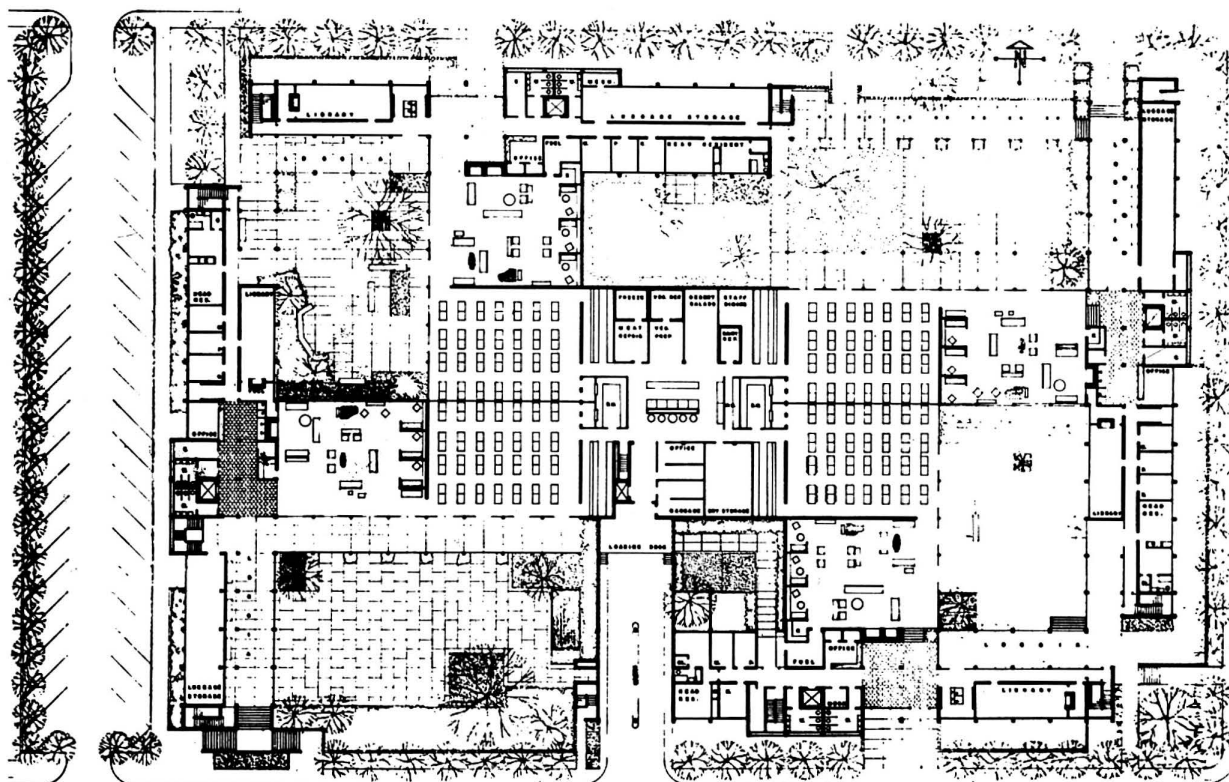
In the design we sought and we felt attained, three important goals: a sense of enclosed free space within the building group, a plan that would not hamper the future campus development, and a sense of variety and spatial movement while still achieving the required identical units.

At the ground level, both interior and exterior space is devoted to student social life. Continuity of space from interior living-to-living court repeated four times integrates this social level.

The dining halls and the covered interconnecting walkways provide a functional and visual focus. It is there and throughout the complex at the pedestrian level that we sought continuity with the tradition of Berkeley residential architecture."—WARNECKE AND WARNECKE.

UNIVERSITY RESIDENCE HALL

2

JOHN FUNK in association with
KITCHEN and HUNT

Participation in this competition was limited to the following architects: Welton Becket and Associates; Gardner Dailey; Vernon DeMars, Joseph Esherick and Ernest Kump in association; John Funk and Kitchen and Hunt in association; Pereira and Luckman; Warnecke and Warnecke; Weihe, Frick and Kruse. The program was prepared by Professional Adviser John Lyon Reid whose duties included examination of the designs to ascertain whether they complied with the mandatory requirements of the program and report to the jury of any instance of failure to comply with these mandatory requirements.

In general it was decided by the University to build a residence hall which would enrich student life on the campus. There would be a mandatory total of 800 students housed in four self-contained units of approximately 200 each; each of these units to generally contain all necessary services and public rooms but to be interconnected to form a well articulated building or building group. It was desired that each of the units for 200 students be planned so that groups of forty or fifty students might form smaller social groups; this grouping to be accomplished by any means such as separate building floors in a multi-story building; these four units to be served by a single recreation room, a single group of administrative offices, a single maintenance workshop, a single storage room, a single kitchen and a single loading dock; and all four dining rooms to be arranged in two pairs, each pair separately or together to be served from the central kitchen.

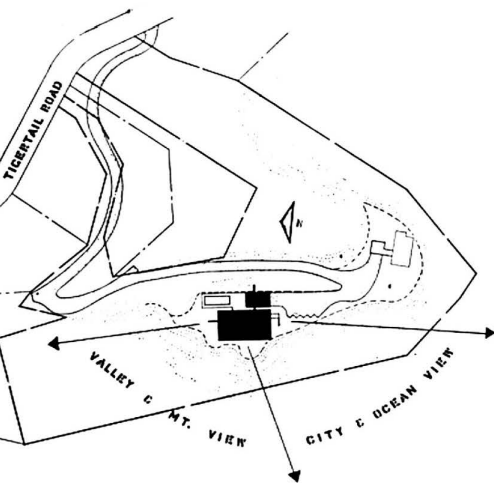
skillful and competent presentation. It was difficult to compare this with the others point to point, as the concept presented advantages not possible in a group solution, but lost many of the opportunities available in arranging several buildings.

To clarify this the jury considered carefully and at great length, as a separate question of design philosophy, the appropriateness, scale, advantages and disadvantages of so large a building as a single unit in this location. No conclusion was reached on this until the final balloting and it was left an open question.

(Continued on Page 38)



STEEL HOUSE



Located on the side of a hill, the glass walls of the house look across a wooded valley, through mountains, to the city and to the ocean. The site is 3.9 acres with natural California growth of the shrub type.

Construction of the house is exposed steel frame with metal roof decking. Slab floor is equipped with radiant heat; the same boiler heats the swimming pool as well as the house.

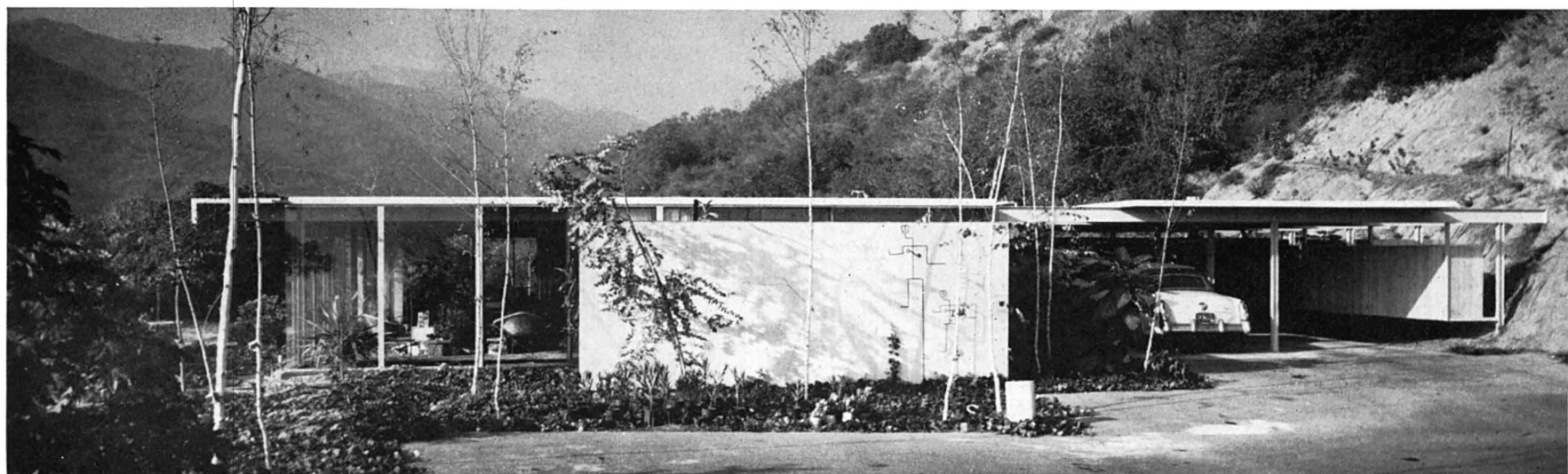
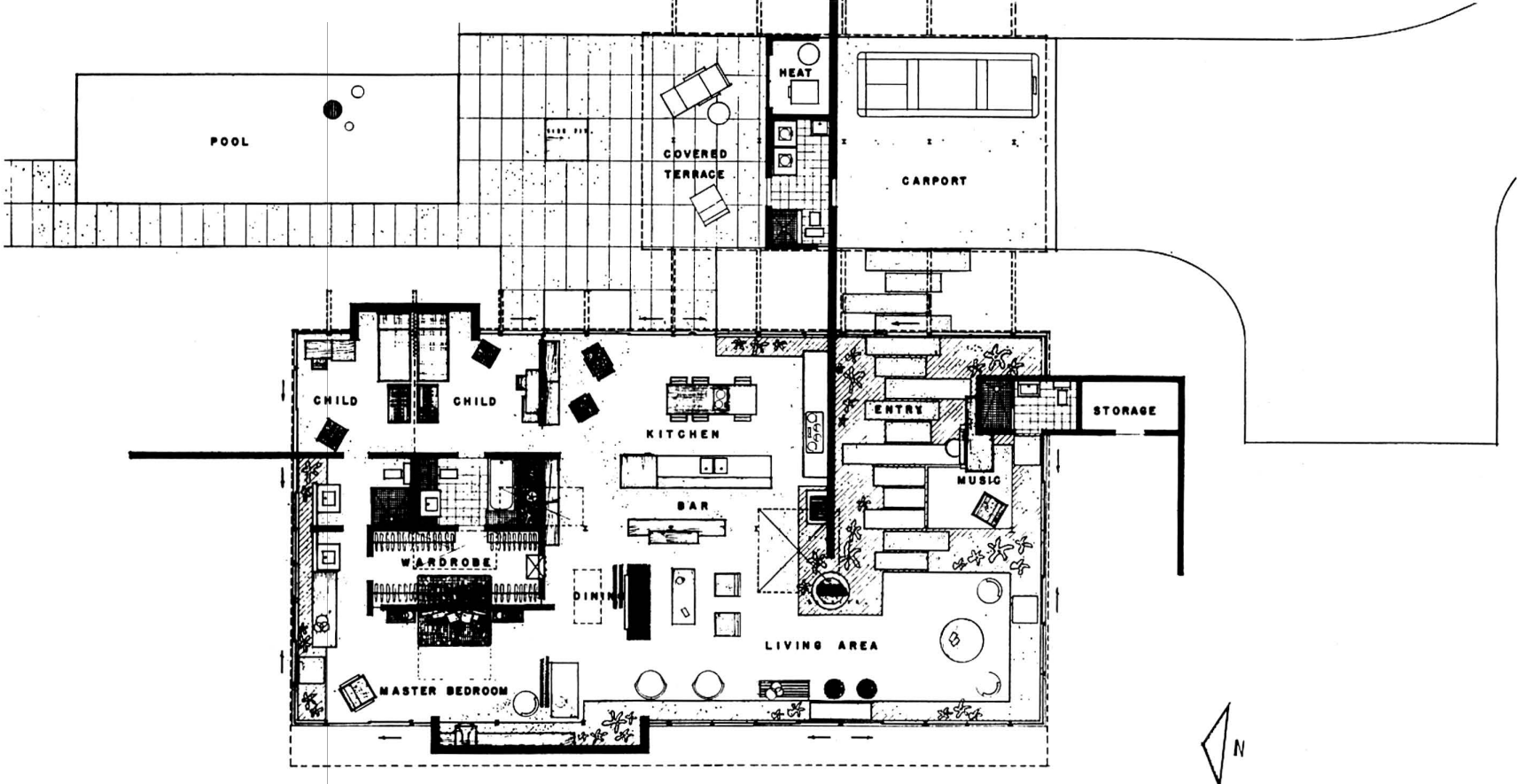
Liveable area within the walls totals 2,620 square feet. The frame is rigid construction, with the rigidity for wind and earthquake developed at the base connection. It is not necessary for any exterior or interior wall to work for vertical or lateral loads. Only the plumbing walls reach the roof decking. The electrical system is run in the metal decking. One inch of fibre glass insulation is installed between the roof deck and built-up tar and gravel roof. All structural and miscellaneous steel was delivered to the job site on one truck.

Because the owner's hobby is gardening it was decided to include extensive interior plant spaces. The interior plants grow directly from the ground. Drainage is provided by 8" round (6'-0" deep) dry wells. The plant area is approximately 300 square feet. In spite of the general belief that interior plants are hard to grow, it has been found that the maintenance and care is no greater than any exterior garden.

Planned for a servantless family with two children, the house is designed to provide the ease and pleasure of a vacation house, yet it is located in the city less than five minutes from shopping and work. The floor plan is a knowing violation of conventional patterns, yet it flows from one area to another without waste space. The motor court, located at the end of a private road, and the pool terrace provide large play areas. The children have horses in the valley below the house.

Because part of the view is to the west, the house was designed with a low eave to this side. The bottom of the eave is 5'-0" away from the house and 6'-2" above the floor. No sun enters the house from the west after 5 o'clock p.m. By this time there is no objectionable heat intensity. As a matter of fact, it has been proved through the year to be a pleasant exposure.

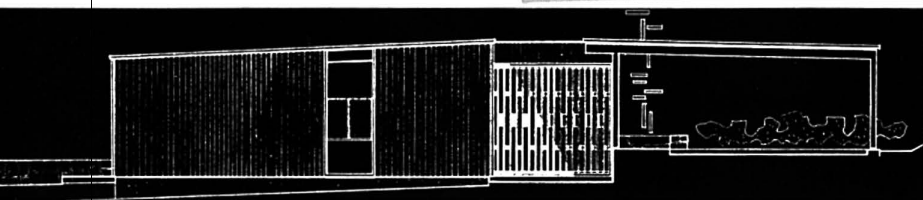
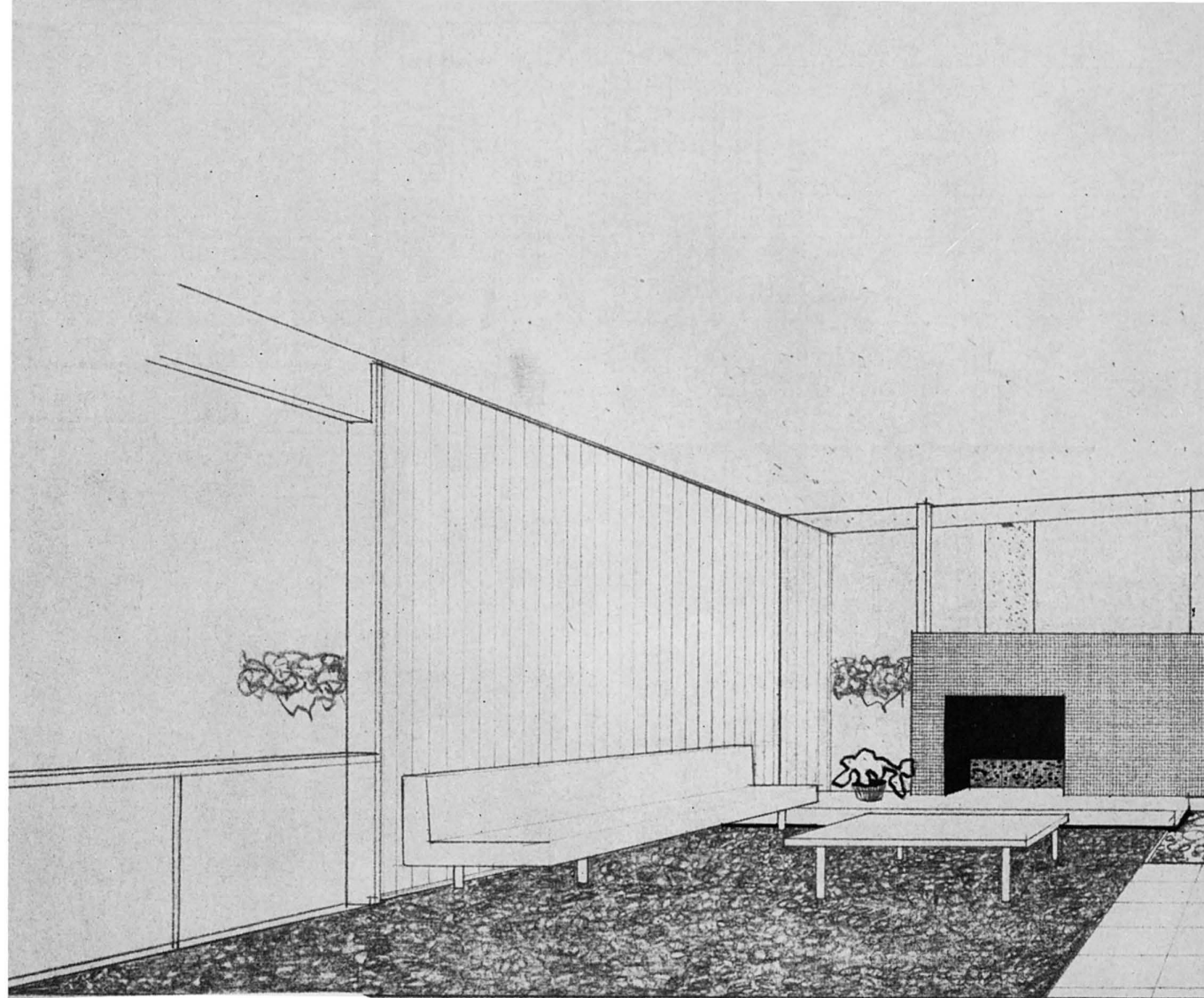
The steel construction cost-wise, proved comparable to timber construction and has provided a pleasant living space with the minimum of construction time.



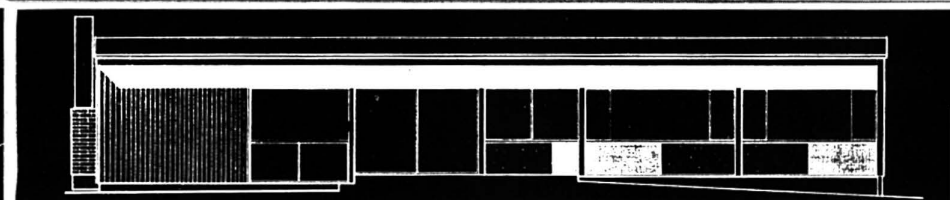
BY A. QUINCY JONES AND FREDERICK E. EMMONS, ARCHITECTS



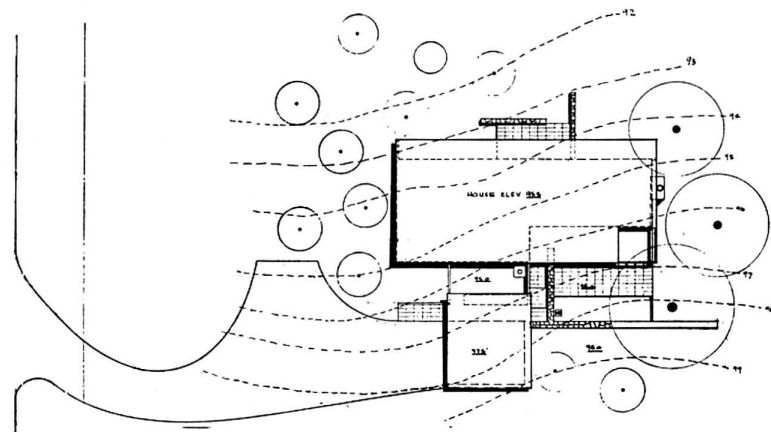
PHOTOGRAPHS BY JULIUS SHULMAN



east elevation



south



A HOUSE IN OJAI VALLEY BY KAZUMI ADACHI, ARCHITECT

Ojai valley, though located only a few miles from the seashore, has mountains that rise 6700 ft. to the north and east and lower hills to the west and south that virtually protect the valley from fog and dampness and produce a dry, invigorating climate with hot, sunny days and cool clear nights. Therefore, cross ventilation and a northern terrace is a must for homes in this valley.

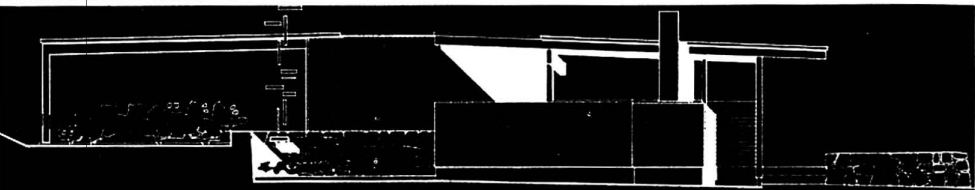
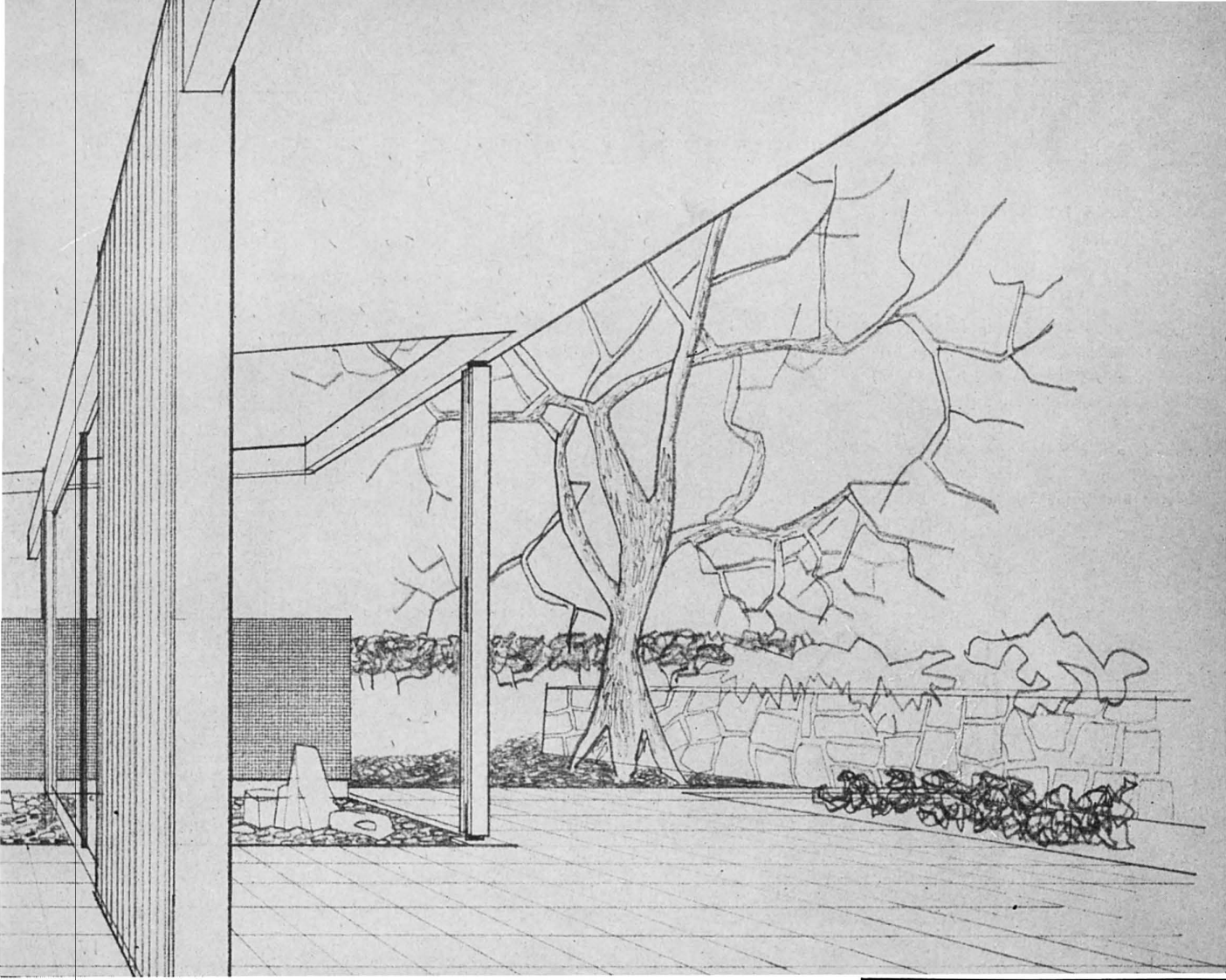
This house, because it will be of a very low structure, will be almost completely hidden in a two-acre orange grove, affording it complete privacy.

Three tall avocado trees to the west of the house were the key in locating this house. Since these trees provide protection from the west sun, the west wall of the house can be all glass. This permits a view of the ever changing tree forms, sunsets and the mountain ranges.

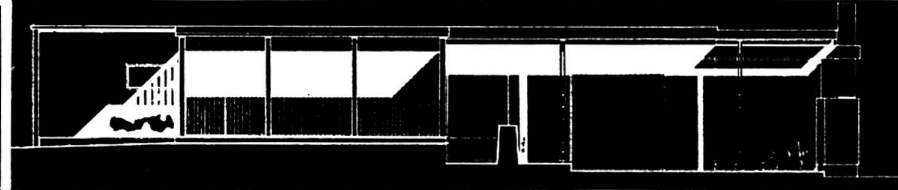
The living area is below the dining section and thus a small stage for occasional musical performances is created.

The owner desired terrazzo floors in the dining, kitchen, service and terrace because of its easy upkeep and its handsome appearance. However, since terrazzo contractors are not available locally, precast Anoco units that are equally easy in upkeep and handsome in appearance were chosen.

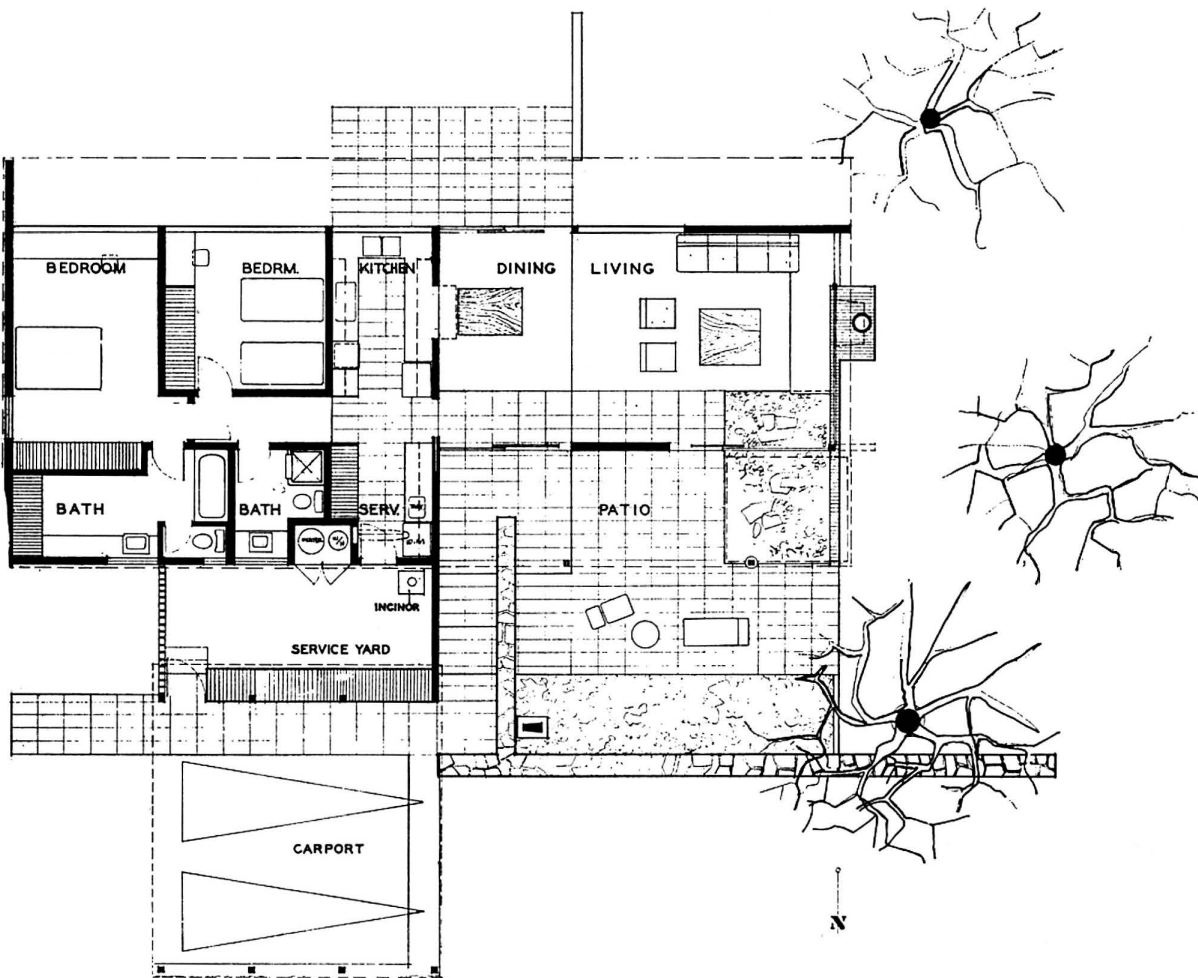
The garden walls, which are of fieldstone from the site, are placed to maintain different levels and to provide shelter to the terrace.



west



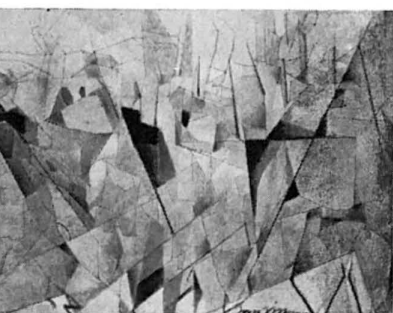
north



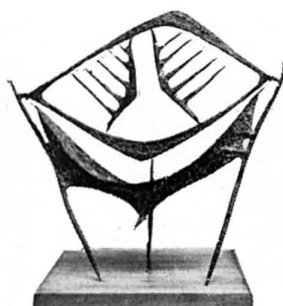
THE XVIII VENICE BIENNALE

BY JAMES FITZSIMMONS

Jacques Villon—"Marching soldiers" (1913)	I
Lynn Chadwick—"Sculptura in Equilibrio" (1952)	II
Fritz Winter—"Autumn Garden" (1955)	III
Consagra Pietro—"Composition 1956"	IV
Vedova	V
Pomodoro Gió—"Homage to Ezra Pound"	VI
Afro—"Progetto di viaggio" (1956)	VII
Gaston Bertrand—"The City"	VIII



I



II



III



IV

The first Venice Biennale was held in 1895—it is the oldest and largest of international art exhibitions. This year thirty-four nations are represented—either in the main, Italian pavilion, or in pavilions of their own. Some of the pavilions are modern; others resemble museums built in the 1890's—museums at their soberest and dullest—and the atmosphere of these pavilions tempts one to visit the Biennale as one visits an enormous museum, hoping, against one's better judgment, to find a succession of masterpieces.

But it would be wiser to visit the Biennale as one visits a world fair, where each exhibitor tries a different gimmick to attract attention to his wares. Thus, some nations exhibit the work of a single artist. Others offer a cross-section: hundreds of paintings and sculptures in every conceivable style, contemporary or obsolete. Most of the participants put on one-man shows by a few of their better-known (or better-connected) artists, with a room, or at least a wall, for each; and a group exhibition in the main room of their pavilion.

As the current, 28th Biennale is the first I have attended, I am not in a position to compare it with those of other years. Most of my colleagues seem to agree that it is pretty bad, and not as good as in the past. It is pretty bad, I suppose; but I am not sure that it is any worse than usual. Most critics seem to have perennially virgin hearts—which leads them to expect one climactic experience after another, so that every time they visit a mammoth exhibition of this kind they are disappointed, until the pattern of disappointment with immediate experience sets. For such critics (and for many artists, too) the life of art is always yesterday or tomorrow. One good work in five hundred: that would be a more reasonable expectation at any time.

For my part, I find the 28th Biennale a delight. There is the splendid Mondrian retrospective, staged by Dr. Sandberg of the Stedelijk Museum, Amsterdam—especially rich in paintings of the early, "tree" period, and of the middle years. This is certainly the best thing at the Biennale. But there are also several confirmations of earlier high opinions—in the work of Afro, Vedova, Santomaso, and others. There are discoveries—names new to me, at least: a young Italian, Sergio Saroni (not to be confused with Sironi); the Swiss sculptor, Louis Weber; Tapiés of Spain. There are occasions for anger: the junk displayed by Russia and by the countries under her influence. And for wonder: the award of the International Grand Prize in Sculpture to Lynn Chadwick of England; the mediocrity of the Juan Gris retrospective; the large role played by Bernard Buffet in the French pavilion. And there are a number of extrinsic factors, extrinsic but inseparable from a visit to the Biennale: the fascination, the magnificence of the city itself; the beauty of the gardens where the exhibition is held, the "metaphysical" presence everywhere of Titian, Veronese, Tintoretto, Guardi, Canaletto—and there are the hours one spends at the beach or at the cafes on the Piazza San Marco, recuperating from the psychophysical effects of looking at thousands of questionable works of art.

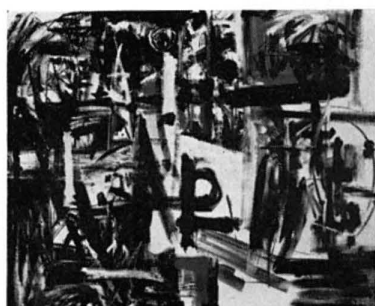
Before commenting favorably on the offerings of certain nations, a few generalizations and assertions about the rest, as sweeping as possible, to clear the deck:

I saw nothing in this Biennale worth comment from India, Turkey, Viet-Nam, Iran, Israel, South Africa, Brazil, Austria, Argentina, Czechoslovakia, Denmark, Egypt, Greece (excepting the sculpture of Achilles Apergis) Venezuela (excepting a massively elegant, simplified torso by Narvaez), or Spain (excepting the Gargallo retrospective, and the strong, somber, abstract paintings of Antonio Tapiés—a star of the exhibition in my book). And I saw very little to look at twice in the French, British or German pavilions.

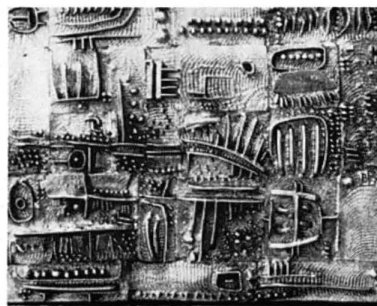
All that redeems the French pavilion from staggering mediocrity is the work of Jacques Villon (who won the Grand Prize in Painting). Otherwise France is represented by painters of the calibre of Bernard Buffet, Tal Coat, and the sculptor, César, who entertains himself (but not us) in the construction of fantastic insects and animals from chunks and slabs of scrap metal. Live beetles, crabs, spiders and bats are much more complex structures, and *significantly* assembled. César's art is a subdivision of L'art brut, which he practices with considerable manual dexterity; but this sort of thing belongs in curio shops. The French pavilion also includes a number of works by Dunoyer de Segonzac—dull academism, except for an oil, *La Coppia*, which is as solidly painted as a Courbet and related to Cézanne's early expressionist phase. And there are several of Giacometti's match-stick figures. Why is Giacometti whose early work showed him to be one of the most gifted sculptors alive, one of those most keenly aware of formal-structural relations, wasting his time in this obsessive self-repetition?

In the British pavilion only Ivon Hitchens' recent, quasi-abstract paintings are worthy of notice. Hitchens is a sort of English Braque, with intelligent laconic allusions to landscape, and a darkling richness of color. But most of the pavilion is given over to Lynn Chadwick, who might be called a sculptor-brother to Sutherland, Hayter and Lam. I find it *komisch* that Chadwick should have received the Grand Prize for sculpture. Or shouldn't a sculpture prize go to a man who is interested in sculpture? In the problems of filling, or enclosing, or chopping up space intelligently? Chadwick (like César) is interested in the fantastical, or modern-Gothic, in the spiny and spiky picturesque, in the crablike or batlike human-insect.

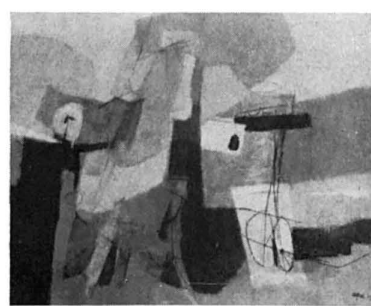
As for the German pavilion, most of it is taken up with a retrospective exhibition for the late



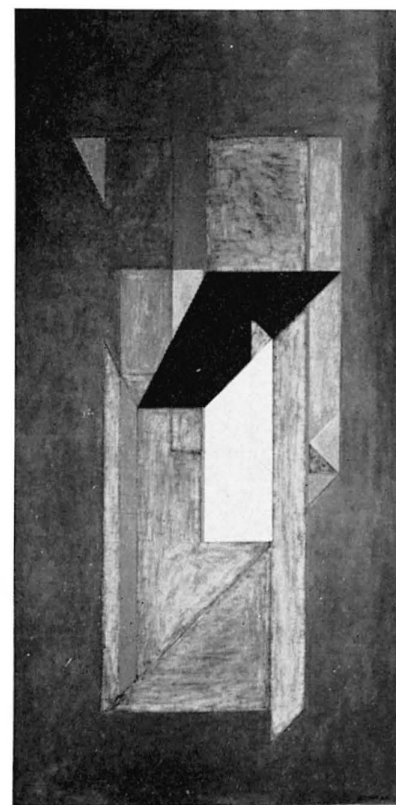
V



VI



VII



VIII

Emil Nolde, whose painting was only parenthetically concerned with painterly problems. It may be worth noting though that Nolde's land- and seascapes are more interesting plastically than his distorted faces and figures and his flamboyant resurrections. Another room in this pavilion is filled with recent paintings by Ernst Nay, who discovered Orphism and Kandinsky a few years ago, and now spends his time painting constellations of multi-colored balloons bobbing about in space. One or two of them would be fine; but a roomful? This is academic art—formula-painting. There is also a room for Fritz Winter, who is a very good painter indeed when he is himself and not Hartung or Miró. The sculpture in the German pavilion is as bad, as stylized, self-conscious and lifeless as most German sculpture. Whether abstract or representational, it always calls for a fountain, pedestal, or conspicuous niche. But the sculptor Karl Hartung's outside drawings of transposed trees, torsos and bridges are excellent—taut, dramatic, full of soaring or spanning movement.

Turning now to more rewarding pavilions, a few more generalizations, assertions and random observations, by way of introduction:

The nations which show the best work and/or maintain the highest level of performance are Belgium, Italy, Switzerland and the United States. The most interesting pavilions architecturally are those of Venezuela, Switzerland and Japan. The best sculpture in the Biennale is that of the Swiss, Louis Weber. The best paintings (aside from Mondrian's, of course) are those by Afro, Santomaso, Vedova, Tapiés and Jackson Pollock. The most interesting newcomer: Sergio Saroni.

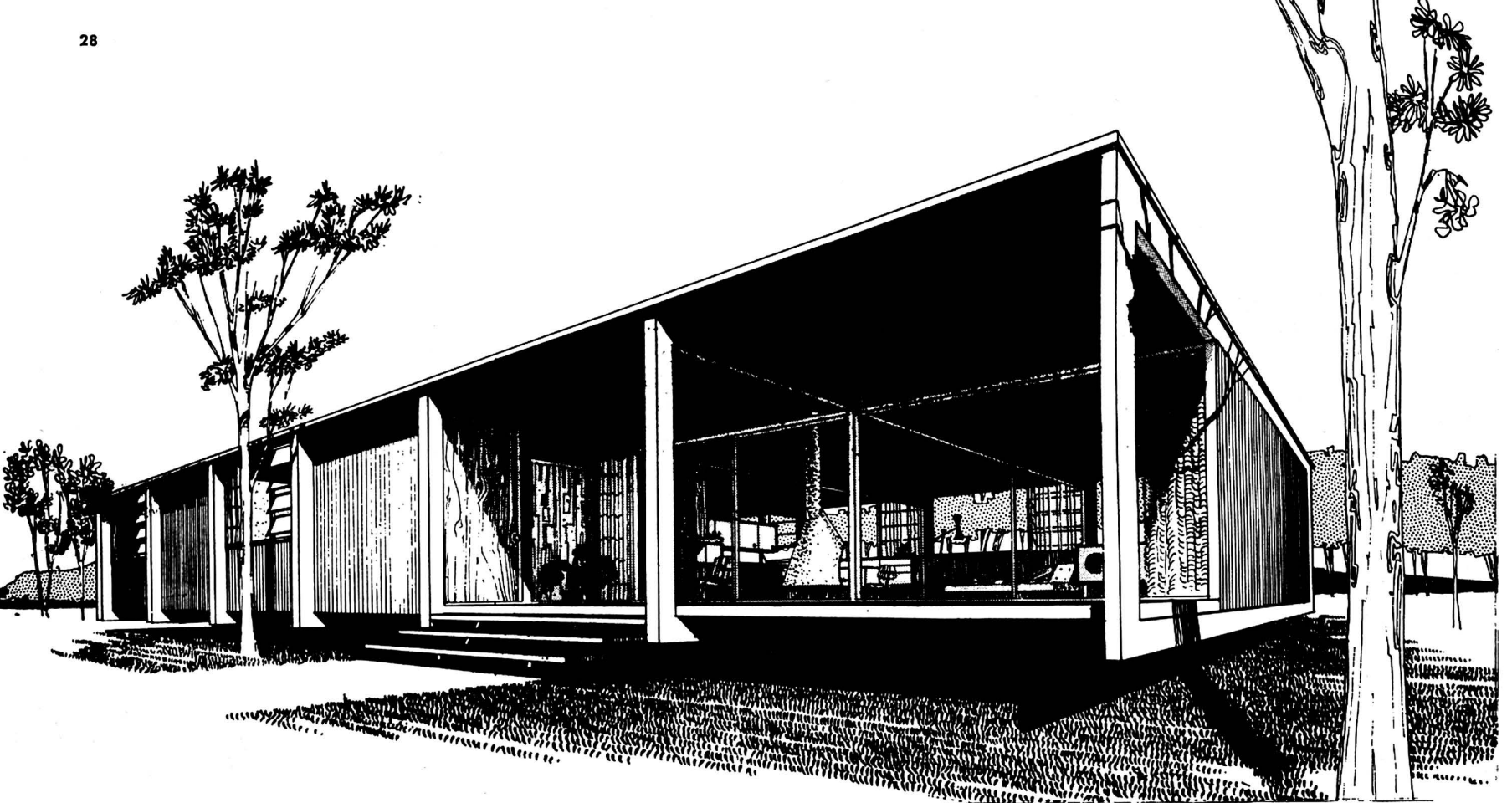
The Italian pavilion is the largest and, like those of other nations, contains many arid stretches: rooms devoted to artists whose reputations are deservedly local. I will ignore all of this, and confine myself to the brief notes I made in my catalogue. But, first, before entering the pavilion one passes two very large ferro-concrete sculptures by Somaini: massive dolphin-like arabasques in space; good work, but not fully realized, because clumsily proportioned at the critical terminal points. The first good painting I saw was by Prampolini, who had a one-man show at the Galleria del Fiore in Milan a few months ago just before his untimely death. It is abstract, architectonic, boldly colored, and illustrates the influence of collage on modern painting. Just after this fine Prampolini one comes to a monstrous Guttuso a big vulgar painting of vulgar people—the masses, aggressive and grimly healthy—at the beach. (There are a lot of "social realists" in the Italian pavilion. Guttuso is the best, or worst, depending on your point of view). Next, a roomful of Chiricos: atrocious, except for a few which evoke faint memories of his "metaphysical" period. Mostly he paints heavy-footed horses and heavy-handed self-portraits in period costume. If an artist insists on painting in the manner and technique of 300 years ago, then by God he should do it as well as the old boys did if he is to claim our attention. But, naturally, none of these regressives do: they don't speak the language.

A roomful of Afros: the best room in the Biennale of work by a young contemporary artist. Possibly Afro's work suffers from an excess of taste at times. There is a certain preciousness about his tonal modulations. But that is an excess we are very much in need of today. And Afro's masterful use of black sustains the vigor of his work. Rivaling Afro at his best: a beautiful Santomaso—clean color; full of light and air, yet strongly constructed; a fusion of the lyrical with the intellectual, like a piece by Vivaldi.

A single sculpture by Viani: too stylized; his debt to Brancusi and Arp too obvious.

Several new paintings by Vedova: excellent lyrical abstractions; much freer and more complex than his earlier work. Full of receding and exploding linear perspectives, they give a sense of constant

(Continued on Page 34)

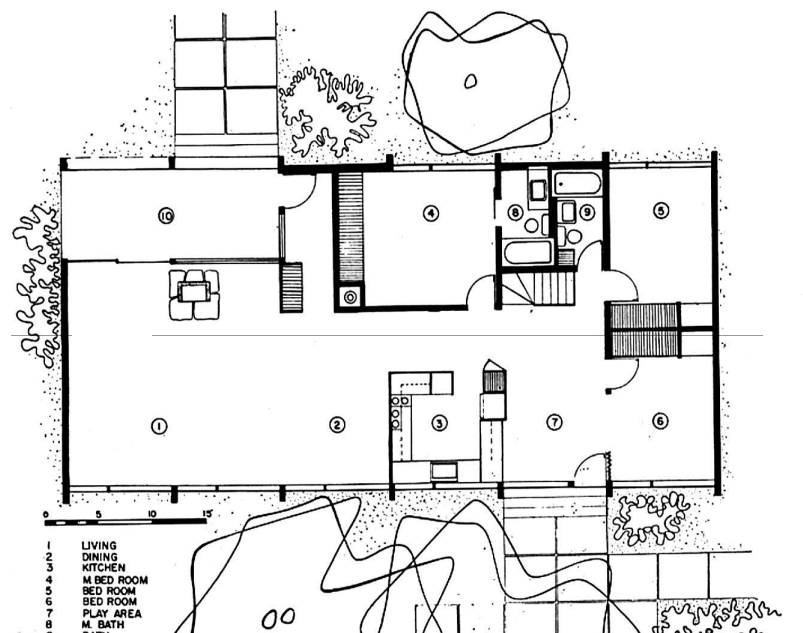
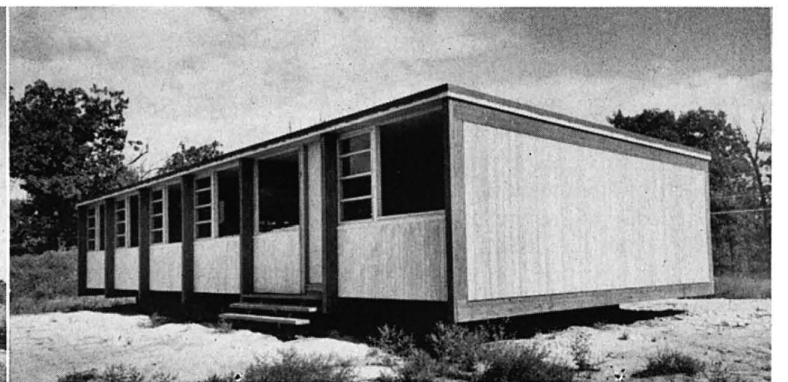
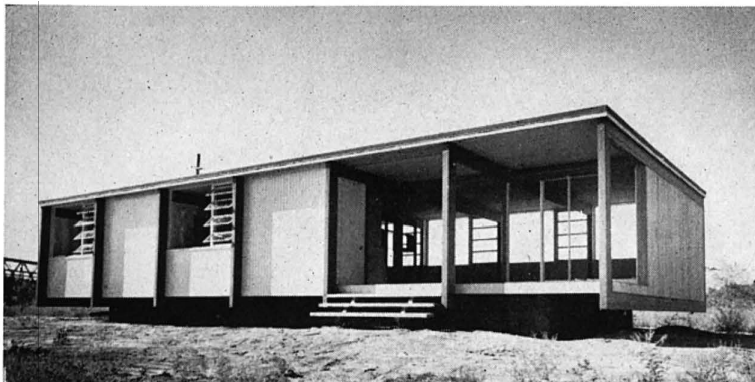


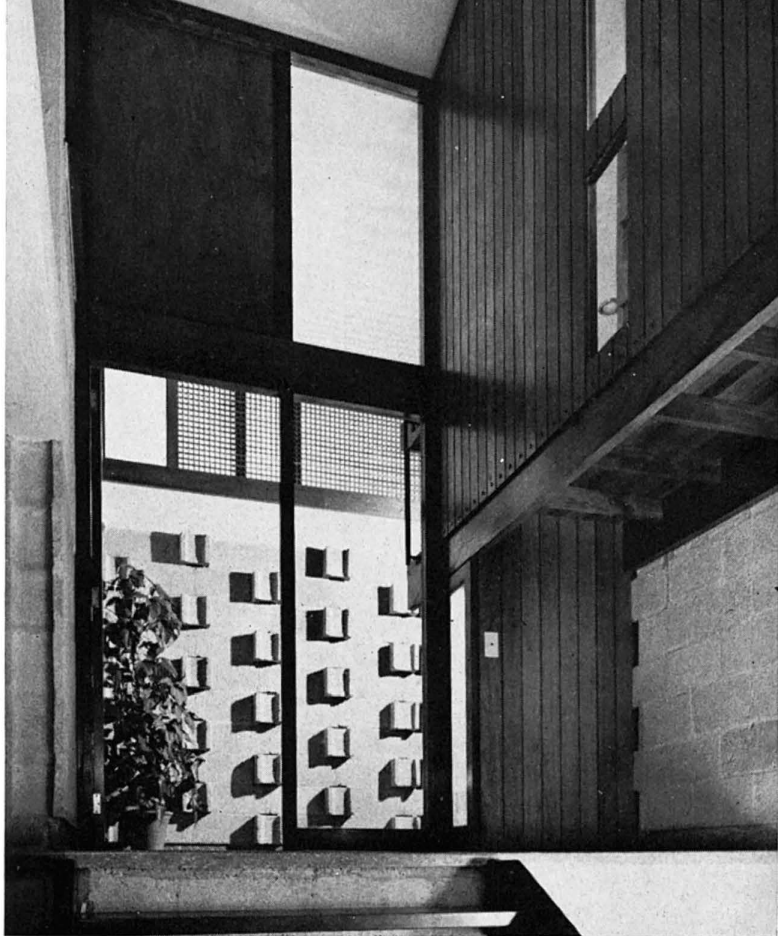
HOUSE BY LOUIS H. HUEBNER, ARCHITECT

This project for a house of maximum space at minimum cost resulted in a floor plan with living room, dining room, kitchen, gallery, and playroom essentially all one room. The space is divided by the kitchen cabinets which hang from the ceiling on stainless steel pipes.

For economy of construction, the concrete foundation is a smaller core at the center of the building. The house is cantilevered from the foundation five feet in all directions. Seven 5 x 12 laminated trusses, ten foot on center, form the basic structure of the building; the porch, adjacent to the living room, has sliding glass doors ten feet high and eight feet wide; siding on both sides is cypress given a natural oil stain; the front and rear is grooved plywood painted white; laminated beams and other trim will be stained dark brown; the roof will be built up tar and white slag.

The floor is covered with 3/4" plywood and Unico cork. It has been planned to use a prefabricated fireplace in the living room, with the forced air heating system having provisions for future air conditioning.





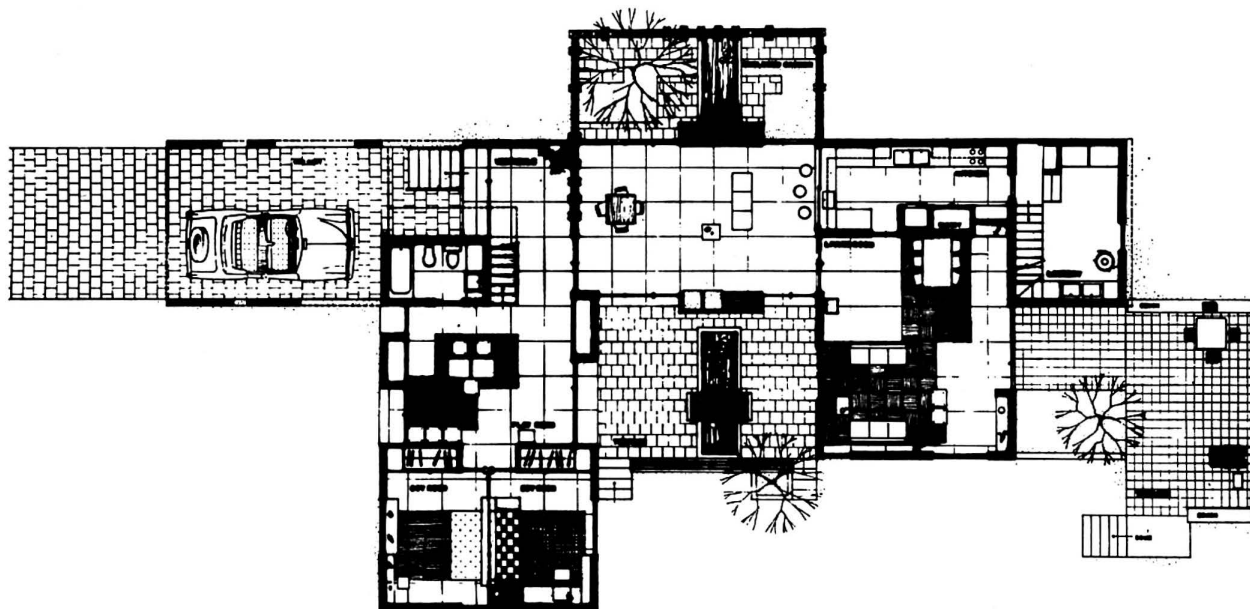
PHOTOGRAPHS BY MUNIZ



HOUSE BY MARIO ROMANACH, ARCHITECT

This house in Cuba has walls of concrete blocks left exposed and woodwork of varnished cedar which makes a good color scheme with the entrance and terrace floors of red Catalan tiles. The house has a central core which opens onto a small patio and a terrace. This core was designed to serve as the center of the household and has proved to be the most used part of the house.

Many of the walls have not been built ceiling high but are topped with wooden jalousies for better ventilation. These are protected from the weather by hanging beams which also give shade.



SOUTH AUSTRALIAN GOVERNMENT PAVILION

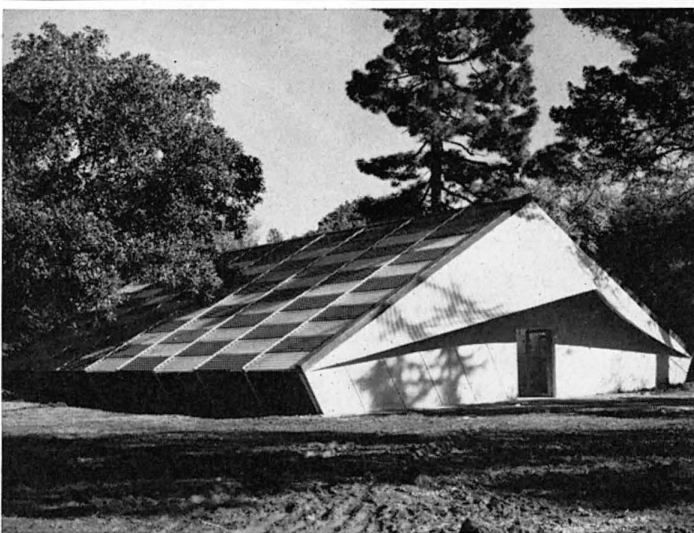
The basic elements of the pavilion—the floor and roof—are standard flooring units normally used in the construction of portable school classrooms. Some units were laid directly on ground, other units were inverted, waterproofed with plastic sheeting, and supported on a simple system of paired rafters and posts, to form finished ceiling and roof.

Two-inch thick standard size 8 ft. x 4 ft. sheets of Stramit (compressed straw) were lapped and bolted together to form wall panels. These panels were prefabricated, lifted into position and finished with waterproof paint. The remaining wall areas are plate glass, beaded directly into the frames formed by posts and wall panels.



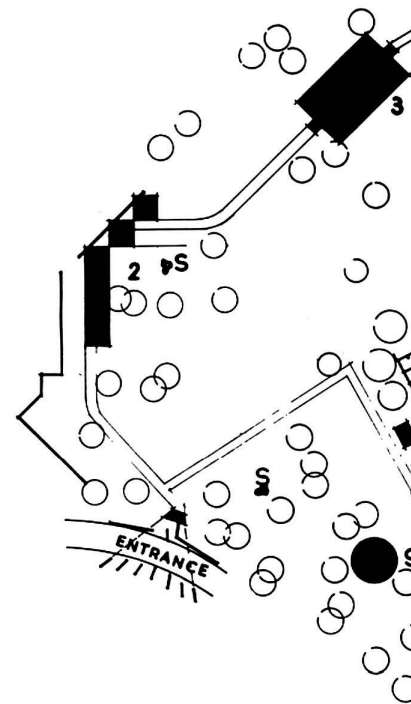
TRADES PAVILION

The Trades Pavilion, a tent-shaped building, covers an area of 4,000 square feet. In cross section the structure consists of triangular-shaped three-hinged steel frames, each having a span of 30 feet and a rise of 20 feet. The arches spaced at 8 feet centres are constructed from pairs of "clearspan" open-web joists. At the springing, the frames are raised 3' 7" above the ground on triangulated tubular steel supports, which in turn are supported on concrete footings. Wind bracing is provided at each end of the building, with longitudinal bracing to transmit wind forces on the ends to ground level. At each end of the building a canvas canopy is provided. This is in the form of two triangular membranes hipped at their junction and supported by steel wire guy ropes.



CONCRETE PAVILION

This pavilion is composed of six bays of 18' span prestressed periphery beams, which carry a 3' 0" grid of post stressed beams within them. All beams are 10' deep by 23 3/4" wide. Each 18' square bay was assembled on the ground, and held together by the stressing of the high tensile wires passed through the secondary beams forming the grid. The whole bay was then raised and supported on the steel pipe columns, and secured against wind and other applied loads. Precast panels laid in position where required, with sealed joints, form a roof.



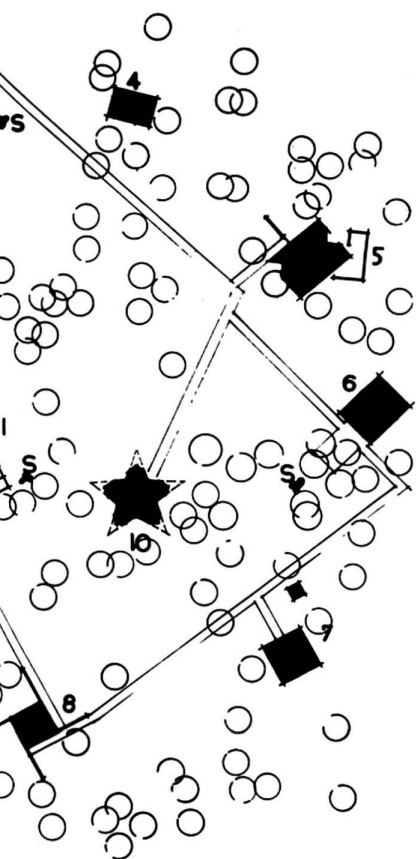
ARCHITECTURAL EXHIBITION

AUSTRALIA

The architectural exhibition staged in conjunction with the Sixth Australian Architectural Convention in Adelaide, South Australia, was the first of its kind to be held in this part of the world. In addition to showing good architecture by means of photographs and models, it was designed to illustrate in actual buildings new structural principles, new forms of construction and new materials which will become an integral part of Australia in the future.

The site was the Botanic Park near the center of the city, and it was an ideal setting for the project which resulted from the cooperation of architects, engineers, artists, manufacturers, and the building trade. The buildings were lighthearted and colorful as exhibition architecture should be, but serious excursions were made into new uses of common materials from concrete to canvas.

- 1 ENTRY & CONTROL
- 2 CONCRETE PAVILION
- 3 TRADES PAVILION
- 4 S.A. GOVERNMENT PAVILION
- 5 HOUSE
- 6 STEEL PAVILION
- 7 GLASS PAVILION
- 8 C.S.R. PAVILION
- 9 PLASTICS DOME
- 10 INTERNATIONAL PAVILION
- 11 PLAYGROUND
- 12 REFRESHMENTS
- S SCULPTURE



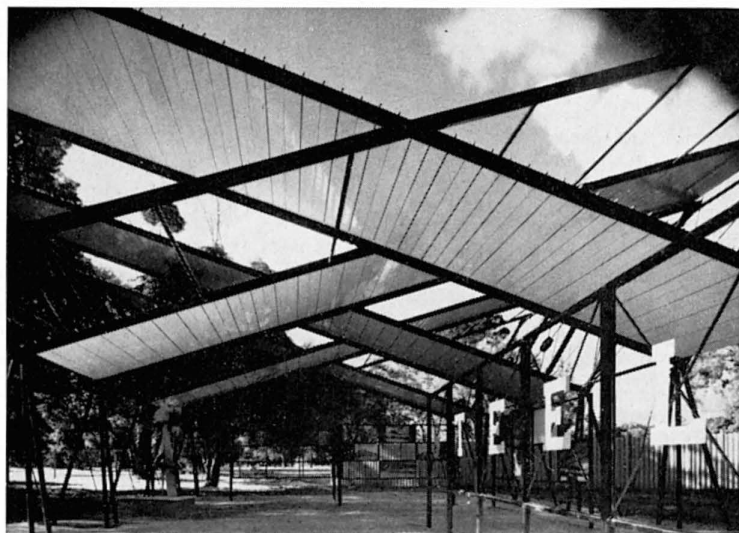
TIMBER HOUSE

Primarily illustrating the logical use of timber in various forms, the designers produced a relatively small house of some 900 square feet with unusual spaciousness and flexibility.

It was the deliberate aim of the designer not to attempt to produce a fully equipped house, but rather to illustrate the relationship between the various areas for living. This "house in the abstract" was produced with just sufficient fittings and furniture used to make the functions of the different areas obvious.

Glass walls tend to merge the interior with the natural surroundings. The beauty of this house springs from the honest expression of the structure and the sympathetic use of timber in its natural state. There is plenty of space provided for the circulation of visitors.

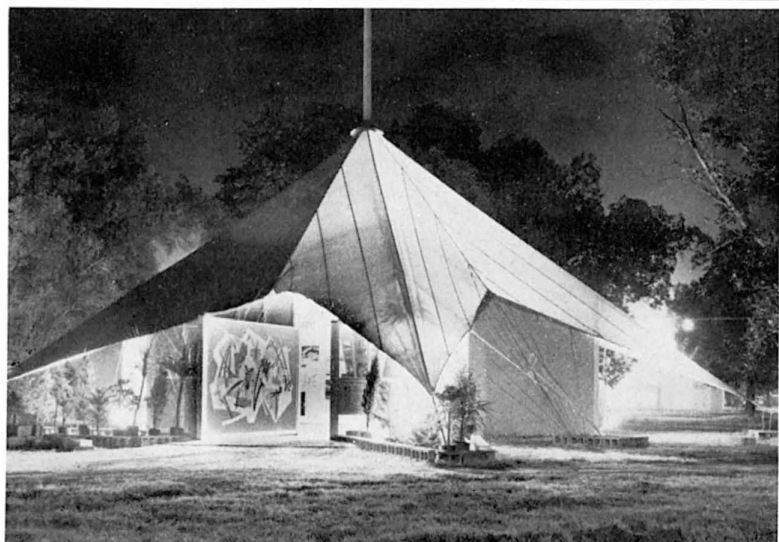
Exposed laminated timber arches of oak span the full width of the building some 32 ft. This ensures maximum flexibility in planning, since inner walls are not required to support the roof.



STEEL PAVILION

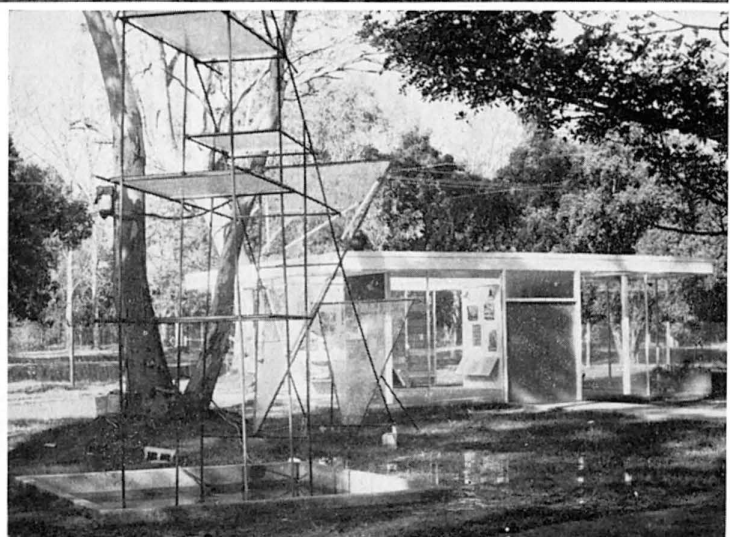
While the Steel Pavilion actually encloses no space, it has the appeal of a piece of abstract sculpture.

It consists of six prefabricated frames supporting panels of steel decking, with cables to take the tensional forces. The "Plastic Theory" design technique has enabled very light members to be used, giving an effect of lightness combined with great strength. All structural frames for the building were pre-fabricated off the site, complete with concrete bases, and erected with a mobile crane in three days.



INTERNATIONAL PAVILION

A structure of wood and canvas, the pavilion is hung on a central timber mast, forty-five feet high; twenty-five feet above the ground, taut sisal ropes radiate to the perimeter supporting colored canvas panels in a series of undulating planes, raking low to the ground at the five points but rising at the angles to allow light and movement to the interior.



GLASS PAVILION

The pavilion is essentially a glass cube with the minimum of other structural materials. Almost one wall of the building 3'0" wide glass louvres. The sheets of plate glass in the walls are jointed with patent aluminum glazing sections and are mitred at the corners. The corrugated sheeting on the roof is a new fibre glass material produced in various colors.

ARCHITECTURAL EXHIBITION COMMITTEE.

SIXTH AUSTRALIAN ARCHITECTURAL CONVENTION.

Keith Neighbour
Richard L. Roberts
Brian Claridge
John Tulloch
A. Lawrence Brownell
John Morphett
Newell J. Platten
M. Bradbury Harris
Alan N. Godfrey
Ian D. Campbell

MUSIC

(Continued from Page 12)

strument can substitute for mandolin in Schoenberg's *Serenade* or the passages where it appears through a veil of orchestration in *Moses and Aron*. A near-obsolete, amateur's instrument, scarcely to be valued above the ukelele, yet see what Schoenberg has made of it. The sound of plucked strings had almost vanished from the orchestra, except in the occasional pizzicato. Schoenberg found it again in writing for mandolin and guitar. The harpsichord, the most versatile of the plucked instruments, opens a new field of instrumental color. The very vices of the modern instrument, against which purists protest when they are used for playing the older music, are virtues for the twentieth century composer: the pedal control of registration which can distinguish single tones by a continuous changing of their color, as in the chamber music by Webern and Boulez, the sixteen foot stop weighting the bass.

Modern composers misuse the harpsichord as seriously as they misuse the organ. They would do better to make it their prime instrument for composing, instead of the piano. A twentieth century composer can learn more—and irritate his neighbors less while doing so—by working out his compositions on harpsichord, or like Mozart and Haydn, on clavichord, taking full advantage of the higher overtones, than on the comparatively limited piano.

The splendid new Metropolitan Opera recording of Stravinsky's opera, *Rake's Progress*, is brightened by use of the harpsichord instead of the piano for the recitatives, but this coloring which serves so well for the recording will not go well in a large opera house. Stravinsky told me that he had solved the problem of making the harpsichord heard in such conditions by having it played in octaves. Yet the instrument does not speak well in octaves. In such a situation, where the tone must carry, better use piano. And again, in the duet accompanied only by the keyboard instrument, the piano is preferable. Stravinsky wrote the part for harpsichord, but he wrote it in a style more suited to piano. I leave the decision to any listener who heard this section accompanied by piano in the Metropolitan Opera broadcast and will now listen to it in the recorded version with harpsichord.

Though I may argue eloquently for the older instrument, I am not prejudiced in its favor. Each has its place, and rightly used neither can be an adequate substitute for the other. It is still possible to play Bach well on the piano and abominably on the harpsichord. Beethoven's sonatas belong to the piano and to no other instrument. Yet the *Hammerklavier* well played on grand clavecin would provoke matter of interest not less than Weingartner's orchestral performance.

USC offered another summer program which deserves mention, a Festival of India, presented by the Indian Students' Association. I have seen the word Festival used so often for any sort of occasion that the mention of it now rouses me to antagonism. This was not a Festival, certainly not of India. It was a program of Indian music and dancing, and that would have been a sufficient title for it.

The performers were both professional and amateur, but among both amateurishness predominated. The speakers talked incessantly in several dialects, with little gain to the music; others in the audience seemed to enjoy the talking more than I did. The dancers went through their motions gracefully, in patterns reminiscent of Indian sculpture and painting. We were not told whether the dances were traditional or composed. The men especially failed of that grace in the torso which is the complement of the delicate, archaic hand movements, the release of every muscle which is the philosophic expressiveness of Indian dancing. Yet any criticism I may offer was set aside and my evening was made whole when a gentleman named Satyapal sat down to play the Sitar, a long-necked instrument with metal strings somewhat resembling a large theorbo lute or chittarone, with a smallish oval sound bowl. What he played was described on the program in the following language: "A classical Raga played on a classical string instrument accompanied by Tabla at the later stage. Sitar is a melodious instrument in which composition is improvised by the artist in a definite 'Raga'."

I won't argue with this description; I simply do not understand it. What is "Tabla?" My reference books ignore it. Whatever it may be was not evident on the stage, where the performer sat alone, both hands busy with his Sitar. A "Raga" (I borrow from the indispensable *Oxford Companion to Music*) "is roughly describable as a scale plus traditional regulations as to its use and the melodic turns to be

associated with it in improvisation." And going backwards in the quotation: "The Hindu system divides the octave into twenty-two, though it does not use all the notes in any one tune, but only a selection of them based upon any one of the sixty or more ragas." That makes the matter fairly clear. A Raga is a sort of tone-row carrying its own intervallic-harmonic relationships, governed by a set of conventions as to the manner in which these may be combined and embellished; within these rules and conventions the performer improvises.

The composition we heard began simply enough by reiterating a single tone and then a series of intervallic departures from it. These set up a tension subsequently modified by addition of what we might think of as passing tones, creating an expanding melody or paragraph of musical sentences, around which an insistent drone was built up on the open strings. (Tabla may signify drone). Though the style differs from what I have heard of lute-playing, the fundamental relationship of the two instruments is evident. It is not unlikely, though I shall not consult a philologist to confirm my guess, that Sitar and Chittarone, also known as Sitron or Cittern, have a common ancestor.

Satyapal is a highly gifted musician. He made his instrument speak with charm and force in several contrasting registers and dextrously varied his material while never losing contact with its melodic origins. I hope Mr. Kohs listened to this performance. He needs to get away from standard European models. The recorder is no more a primitive instrument than the Sitar or the lute and needs to be dealt with melodically in somewhat similar fashion. I will grant him—not in jest but seriously—that to compose music for a solo instrument of this sort one needs a tradition, a convention. Without this path to break away from, originality cannot thrive.

The same criticism can be made of contemporary Japanese writing for the shakuhachi and koto. Yet as I write this I recall with deference the many works I have heard by Michio Miyagi, a twentieth century Japanese composer, honored by his countrymen, who has just died. Miyagi brought to the older instruments a style containing many ingredients of European melody and the Lisztian technics and harmonies we claim now to despise. He did not fear to compose waltz movements for koto and shakuhachi. I have even heard a jig. Whatever he composed was made honestly, with a regard for the instruments, but lacking the authority of his own ancient tradition. The number of his compositions I have listened to at one sitting testifies to the affection the Japanese feel for his music. Like many of the male Japanese musicians he was blind and trained on the koto, of which some believe him to have been the best modern virtuoso.

Since completing this article I have heard John Hamilton play his graduation recital, a gratifying performance and the best harpsichord recital I have heard at USC. I shall discuss this recital in a later article.

GEORGY KEPES

(Continued from Page 19)

objects is the only means of artistic description of reality. Nevertheless, at all times master works of art have transcended mere representation; and during the past seventy-five years Western art has shifted toward ideas and methods corresponding to this Far Eastern vision. What the artist Piet Mondrian lately called the "liberated and universal rhythm distorted and hidden in the individual rhythm of limiting forms," the great pioneers of modern art have tried to make visible. Today artists more often depict the inner world of man than the likeness of particular objects, making visible and external their experience of connection with the world around them. But the general public, most scientists included, still assumes that art is naturalistic representation.

Because our modern specialization so often separates artist and scientist, neither is fully aware of the profundity of the other's work. Both reach beneath surface phenomena to discover basic natural pattern and basic natural process, yet the scientist expects the artist to interpret literally and the artist expects the scientist to think mechanically.

The essential vision of reality presents us not with fugitive appearances but with felt patterns of order which have coherence and meaning for the eye and for the mind. Symmetry, bal-

ance and rhythmic sequence express essential characteristics of natural phenomena: the connectedness of nature—the order, the logic, the living process. Here art and science can meet on common ground.

Most scientists feel that conceptual thinking has transcended the power of visualization to aid them in describing the new worlds of science. Immersed in the tradition that visualization is static representation of objects, they could hardly have escaped entertaining this view. Recognition that visualization is much more than this can provide a spur to their thinking that they now deny themselves. Artistic expression comes to conclusions similar to those of science, finding idioms for the description of processes and relations. Here is reinforcement for science, an increase of power, a source of breadth to counterbalance the limitations which science systematically sets for itself.

“It is becoming apparent that the metrical aspects alone of all subjects cannot express all the things in which scientists, as such, are interested, and the development of mathematical theory of relationships other than metrical will be a great help to scientific research when it has to face either problems of greater complexity in inorganic nature, or any problems in organic nature. In the most recent work in physics as in wave mechanics or in biological problems (including the unsolved problems of civilization) both the whole and the parts must be continually kept in mind. The metre rule is no longer the physicist’s magic wand, alone capable of dealing with all problems of physics, and outside the laboratory the ourselves-alone idea of, for example, intense nationalism, in practice does not work. Both inside the laboratory and outside, man is meeting problems needing “contrapuntal” thinking, or, to vary the metaphor, needing the type of mental activity usually associated with the artist who can pay infinite attention to detail without losing sight of the whole.”*

Contemporary scientists recognize that visual models of their new concepts cannot be provided by a portrayal of things; it is a model of relatedness that is called for. Artistic expressions which convey a sense of relatedness can provide science with new resources for visualization. In a closer communion between artists and scientists, it may be possible to work out new visual idioms to reinforce the abstract concept by the powerful, immediate sensory image which conveys the same meaning.

Scientists are aware of the role of what they call “intuition” in the creative process whereby they integrate their data into new expressions of order. They are often aware, also, of the closeness of their creative thoughts to visual and artistic thinking—they “look forward” to certain types of results; they “design” their experiments and their apparatus. Their procedure in presenting results, however, gives us no hint of this. We are shown logical steps by which knowledge can be verified; we are not shown the deep workings of human minds.

The scientist anticipates his results, above all to the extent of addressing his problem by visualizing it. His results take shape in part as a set of connected images, grasped, understood, attached to previous experience. This is not to say that his investigation will not overrun the boundaries of the visualized goals—science is often a runaway process. Often expressions are arrived at the use and significance of which are unclear. A basic mathematical concept is the square root of minus one—De Moivre’s *i*. Yet *i* was unanticipated, emerging from mathematical manipulation. It was called “imaginary,” as opposed to the other “real” numbers with which men had been familiar; it disturbed mathematicians by presenting a breach in their orderly structure of concepts. Its menace departed, however, when expressions containing *i* found simple geometrical demonstrations and practical uses gave *i* a meaningful place in the world.

Mathematicians who build new spaces and physicists who find them in the universe can profit from study of the pictorial and architectural spaces conceived and built by men of art. The finite universe of late medieval times found a pictorial

*William H. George, *The Scientist in Action*, London, 1936, Emerson Books, Inc., New York.

(Continued on Page 34)

1956

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J.O.B.

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FOR ARTISTS, ARCHITECTS, DESIGNERS AND MANUFACTURERS

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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.

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F. DESIGNER: Industrial design organization in midtown New York City seeks person for position working on store fixtures, store department planning, packaging, product design, and point-of-purchase material. Ability to do rough visuals for presentations desirable. Must be able to assume responsibility and eventually work with accounts. Prefer young man with some experience but will consider beginner with good training background and no experience.

G. DESIGNER: Large Philadelphia manufacturer of electric lighting fixtures seeks male designer, 25-35 years old. Experience in furniture line helpful. Excellent opportunity. Salary commensurate with education and experience.

counterpart in the limited, shallow, "abstract" spaces of Giotto. Stage by stage, art kept pace with developing cosmological concepts until, in the Italian Renaissance, the artists became the cosmologists themselves. Of all artists, the Greeks alone reveal space conceptions limited by Euclidian geometry. The past seven centuries have given us the "symbolic" space of the early Flemish masters; the "rational" space of fifteenth century Renaissance Italy, deep and clear; the "ideal" space of Raphael and the High Renaissance, in which a clear foreground, continuing the spatial characteristics of the world in which the observer finds himself, converges upon a spatially mysterious, other-worldly realm beyond; the soaring, levitational space of Gothic cathedrals; the poised and balanced spatial volumes of the High Renaissance church of San Biagio at Montepulciano; the "exploding" space of the German Baroque at Vierzehenheiligen; the pervasive space of the Impressionists, dissolving all solid form; the laminated, timebound space of the later Cubists.

We have accumulated so vast and complex a store of scientific knowledge today that we need a new kind of science to describe the essential motifs of the whole in a unity. Art can make an important contribution by providing insights into structural correspondence common to the various disciplines of science but ignored because science, of necessity, has isolated and limited its fields and objectives. Modern science expands the area of generalization; discrete terrains are linked in common formulations. The larger the areas that are brought into the same scale and meaning, the more important becomes awareness of form relationships; we focus less and less on the facts themselves and more and more upon their interconnection. Thus, in its evolution, science approaches art.

ARTICLE FROM THE FORTHCOMING BOOK "THE NEW LANDSCAPE IN ART AND SCIENCE"; PAUL THEOBALD AND CO.

VENICE BIENNALE

(Continued from Page 27)

transformation, and of shifting, interweaving patterns of movement.

A number of sudden converts to Paris styles ("tachisme," "l'art brut," or "l'informel," i.e., carefully calculated formlessness): Moreni, Milone, Morlotti, Spazzapan, Manzi, Galvano—echoes of Schneider and Mathieu, or of Wols and Dubuffet, but without their strength and control.

The very interesting sculpture of Consagra: massive and flat-like stencils, or abstract silhouettes; a kind of bas-relief set free in space. Consagra's best pieces are "abstract couples." I mean, sculptures in which a dialectical play is set up between two large forms of equal size, combined in one piece. And they are best when there is least surface ornamentation—otherwise they become a bit "chic," or stylish. Another interesting sculptor is Sandro Cherchi, whose bronze human figures look as if they were hacked out of slag or compacted from lava. The faces show the influence of Braque and Picasso; and Cherchi's work would be more interesting if this were not so, and if it were more abstract—because the qualities that make it interesting are purely abstract, i.e., formal.

A retrospective for the late Filippo de Pisis whose painting excites more interest in Italy than elsewhere. A drawing-room artist, in my opinion: rococo, with echoes of Vuillard and Bonnard, and occasional essays at the surrealism of Pierre Roy.

Manzu—the only good naturalistic sculptor in the Biennale. The grace and piquanterie of his dancers, the austere elegance of his robed cardinals are undeniable—even if the qualities of his work tempt one to appreciate it in non-plastic terms. But he is a good sculptor because he does not neglect the problems germane to sculpture—the creation and significant distribution of masses in space—and because he solves these problems with strength and eloquence.

Other things I liked in the Italian pavilion: two new compositions by Burri, all in black, more "weighty," less decorative than his earlier work. The very personal art of Gianni Dova, who paints a translucent aquarium world in aquarium colors with great skill. The abstract silver bas-reliefs—rather like printing blocks—

of Gio and Arnaldo Pomodoro. The imaginary topographies—ideal classical cities, planned in detail, and seen panoramically from above—of Clerici. And, finally, the work of Sergio Saroni, a very young and very talented abstract impressionist, whose composition and brushwork are at once explosively spontaneous and extremely skillful. Saroni is de Kooning's peer in the mastery of the sharp-edged, suddenly terminated overlap of color. He knows his trade; he has ideas. I commend his work to anyone in search of new talent.

All in all, the Italian contribution to this Biennale is the best—not because it is of consistently high quality (it is not), nor because it is the largest and most diversified, but because it includes more good work than any other.

For maintaining a uniformly high standard, honors go to Belgium and Switzerland. A large part of the Belgian pavilion is devoted to a retrospective exhibition of paintings by Rik Wouters (1882-1916), who may be described as an intimist and impressionist, out of Renoir, Bonnard and Vuillard, interested in fabrics and cheerful interiors-with-women. Very pleasing; but it is the work of Belgium's contemporary artists which makes this pavilion especially interesting. There is Gaston Bertrand, an abstract painter who has developed greatly since he showed his work at the Stable Gallery in New York a few years ago. He is not as finicky, nor as antiseptic as he was then; and his color now is lavish, daring and original. There is the very talented, but still eclectic, Marc Mendelson. And there are Anne Bonnet, Louis Van Lint and Jan Cox—whose Flemish surrealism out of Ensor does not hold much interest, but whose excellent drawings and lithographs (a kind of European equivalent of South Sung) do.

The Swiss pavilion this year is devoted to sculpture which is described in the catalogue as non figurative, and is, though little of it is essentially abstract. The work of the late Sophie Taeuber-Arp is featured—her most urban-architectural relief constructions, which, in quantity, I find rather monotonous and less rewarding than her paintings. For me the Swiss pavilion is interesting because of the work of the newer people: Aeschbacher, Hafelfinger (whose work should be conceived on a larger scale), Brignoni, André Gigon, and especially—Louis Weber. Weber's abstract, monolithic forms are reminiscent of some of Vantongerloo's best work. They are small, but succeed in evoking a sense of grandeur, so flawlessly are they proportioned. The Swiss pavilion also includes several pieces by Robert Muller, a young sculptor who lives in Paris and who has been attracting attention lately in America. Muller, like Chadwick and César, makes monstrous quasi-human insects. He is the best technician of the three, and his work is the most powerful, but I find it striking rather than truly powerful, and essentially rather chic; and I consider his formal subjects to be outmoded—they became clichés almost as soon as they first appeared.

The U.S. pavilion is also one of the best containing relatively few really bad paintings, and several really good ones: those of Stuart Davis, De Kooning, Jimmy Ernst (one of his best in a long time), Boris Margo, George Mueller, Jackson Pollock, Franz Kline (*New York*, 1953, one of the few by this artist that make plastic sense to me), and Mark Tobey (whose "white writing" is so much more interesting than his figurative work).

The Japanese pavilion, which was just opened, is the most interesting architecturally. It is the work of Takamosa Yoshizaka who, although a disciple of Le Corbusier, succeeds in preserving the classic Japanese private-house tradition: the assimilation of man-made to natural forms and elements. It is unfortunate that the work this pavilion contains is of little interest. Yamaguchi's bold abstract emblems are striking but essentially decorative, and lacking in formal inventiveness. The other paintings are a horrid mixture of 19th century Japanese wood-cut styles with French impressionism.

Holland's contribution, because of Mondrian, is the largest. But the Dutch pavilion is disappointing, except for the sculpture of André Volten: soaring, linear forms in space, masterfully executed. From Ireland comes an excellent abstract tapestry, *Sun and Shadow*, by Louis Le Brocquy, boldly composed and brilliantly colored. Le Brocquy also shows paintings reminiscent at once of Bacon and Cremonini. He has his own palette, though, of pale greys and jade greens. Uruguay makes a significant con-

(Continued on Page 36)

H. DESIGNER DRAFTSMAN: Large Boston department store needs as designer draftsman someone with creative and proven ability. 4-5 years experience in department and specialty store interiors, fixture design and detailing essential. College graduate with architectural or industrial design degree preferred. Liberal employment benefits and opportunity for growth in a store with large expansion program.

I. FASHION ARTIST: Private fashion school in New York City seeks full or part time instructor experienced in all media of illustration. Write, stating age, background and experience.

J. 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.

K. FLOOR COVERING DESIGNERS: Nationally known Eastern floor covering manufacturer needs several experienced designers capable of creating good floral designs. Creative designing experience in soft-surface or hard-surface floor coverings very desirable. Can also consider those with design experience in draperies, fabrics and wallpaper.

L. FREE-LANCE DESIGNER: Progressive distribution organization in New York City interested in services of designer to develop well-detailed, contemporary seating pieces.

M. GENERAL PRODUCTS DESIGNERS: New York firm seeks designers with at least 5 years experience and a flair for general products, jewelry and watches. Automotive and transportation talent is also needed. Applicants should have good rendering ability and be capable of visualizing sketches of a definite creative content. Salary ranges between \$600 and \$800 a month for qualified persons. Immediate employment, or as close to October 1 as possible.

N. GRAPHIC ARTISTS, ILLUSTRATORS: Direct-mail house seeks free-lance graphic artists for design of letterheads, circulars, brochures, etc. Artists must be from Boston area.

O. GRAPHIC DESIGNER: Outstanding opportunity for creative designer to work in Philadelphia area. Young woman preferred who has a fresh, creative approach to apply to textile and cosmetic package design. Salary commensurate with experience and ability.

P. GREETING CARD LETTERER: Los Angeles firm has openings for an experienced male greeting card letterer and two female color-separation artists experienced in that or a related field. Openings are for full-time and permanent employment.

Q. INDUSTRIAL DESIGNER: Established manufacturer, Buffalo, New York, seeks man with industrial design education and minimum of five years experience, to design electric heaters, electric fans, residential lighting fixtures and other products. Background and interest in home furnishings most desirable. Starting salary commensurate with ability and experience. Excellent opportunity in permanent position.

R. INDUSTRIAL DESIGNER: New York office of industrial design firm has immediate opening for an industrial designer with 3-5 years experience. Person must be good at rendering and able to make good presentation of drawings.

S. INDUSTRIAL DESIGNERS: For IBM, Poughkeepsie, N. Y. Laboratory for product styling, exterior design. Experience in perspective drawings, clay models, layout drawings. Knowledge of die-casting, plastic molding, sheet-metal fabrication. 3 years' experience minimum. Industrial design degree desirable.

T. PACKAGE DESIGNER: East coast, industrial design firm seeks package designer of art director caliber, who has had experience with other package design firms. Salary adequate to attract right man who is interested in permanent position offering future associateship on profit-sharing basis.

U. POTTER wanted to establish own studio in pre-Revolutionary building located in historic Massachusetts town; thousands of visitors yearly. Rent free in exchange for some maintenance duties. Young man preferred.

V. RADIO-TV: Large, well-established Mid-west manufacturer with outstanding company design department has several full-time positions. Candidates from Chicago, Mid-west area preferred.

1. *Furniture Designer* who knows traditional furniture design and manufacture.
2. *Home Fashion and Color Consultant* to relate style and color trends of home fashion field to new and future company products and to make recommendations for selection for mass market colors and finishes for new company products. Prefers woman experienced in field.
3. *Graphics Designer* to share with present graphic designer re-

tribution with a retrospective of Torres-Garcia, a fine artist who discovered and marked out a constellation of his own, situated between those of Klee and Mondrian. And Yugoslavia, having been destalinized for some time now, offers some interesting work: paintings by Pregelj and Protic, individual both in color and subject matter; and sculpture by Bakic; compactly massive, highly essentialized torsos and animals.

As for Canada: the word "archetypal" is being thrown about a lot, and very loosely, these days; but Archambault's figures of the horned moon-goddess in her three phases, and of the Great Mother, may properly be called that. Formally, his work is reminiscent of Cycladic art. I would like to see him deal with these themes in a formal language of today. Canada also shows a good, and technically inventive, color lithographer, Harold Town.

I have saved the Soviet pavilion to the last. It is open for the first time since 1934; and there was a good deal of—essentially naive—advance speculation about what Russia would show. Russia has many first-rate modern artists, but they live (or lived) in France, England and the United States. Perhaps there are some at home, too; but they are unrepresented here, and what Russia has sent to the Biennale may be described, tactfully, as God-awful. Busts of heroes, heads of ex-heroes, and Tintoretto-size paintings of the masses at work and at play, sweating their guts out in the fields (happily, of course), or tattling on each other in the kangaroo courts (amiably, of course). Naturally, all that concerns us as bourgeois estheticians is that this paradisaical life seems to occasion so much bad art—19th century academism that would not have passed muster at the Munich academy in its heyday.

In Europe, as in America, there are critics who never pass up an opportunity to "detect" signs of a return to the figurative; and the fact that some countries are represented at the Biennale by figurative artists has provided these critics with further "evidence." But many countries are represented by only a handful of artists—and these, not their best. What is significant is not that there is a good deal of figurative art in this exhibition, but that most of it is very bad; while the good work—all of the best work—is abstract.

ROOTS OF CALIFORNIA CONTEMPORARY ARCHITECTURE

(Continued from Page 17)

Even while discovering America, Neutra wrote a significant book on building in his adopted country, "Amerika," published in Germany in 1930, the year he became a United States citizen.

Equipped with a newcomer's sharpened sensibilities and a cultivated taste, his book is an excellent record of American building of that period.

Before coming to California Neutra worked for Holabird and Roche, and for Frank Lloyd Wright. For several years after his arrival in California he was associated with Schindler in his Kings Road office, and together they won an honor award for their design of a League of Nations building in 1926. Another joint endeavor was a city planning project for Richmond, California, never executed.

The Lovell house was a distinguished beginning for a career in the world of architecture, and with the exception of Wright, Neutra is the only one of the seven whose work was widely known in other sections of the United States and in Europe and Japan. His planning covers a large field, from a ten-year development plan for the Island of Guam, to scores of residences and office buildings. A housing development for San Pedro in the thirties was for years unequalled in the category of group housing, and his kindergarten, also of the thirties, became a model for future outdoor-indoor schools. His influence has been wide, and today many draftsmen trained in his office carry on his design principles.

His aim, he said early in his career, was to break with Hollywood stage setting architecture and to design carefully for life itself. In his book, "Architecture of Social Concern," he views architecture as essentially a social art, but one in which "visionaries" have always proved in the end to be the practical men.

Up to 1915 California was remarkably free of borrowed archi-

sponsibility for designing company printed materials, etc. Younger man preferred.

4. *Product Designer*: Prefers candidates with several years industrial design experience preferably in radio-TV, although such is not required.

W. STAINED GLASS DESIGNER: Boston firm seeks stained glass designer. Must be able to do cartooning-pencil sketch of window. Windows to be used in temples, churches, homes, etc. Salary \$6,000-\$7,000.

X. TOY DESIGNER: Toy company seeks designer experience in stuffed toy field with ability to create new items and make patterns. Flair for novel and unusual approach necessary. Wolper Toy Co., 79 Bridge St., Brooklyn 1, N. Y.

Y. TWO AND THREE DIMENSIONAL DESIGNER for giftwares field. Experience and design background necessary. Knowledge of decorative and industrial materials, processes and assembly necessary. Must be capable of small product modelmaking. Products must be attractive and practical and principally in fields of glass and metal.

Z. TWO-DIMENSIONAL DESIGNER: Large manufacturer of institutional and fine vitrified china in Western Pennsylvania has two staff openings in well directed design department for imaginative, trained designer. Principal emphasis on decoration in 4 separate product lines, with other activity such as shape design, packaging, displays, etc. Salary commensurate with capacity and experience.

Aa. TYPE FACE DESIGN DRAFTSMAN: Cambridge, Mass. manufacturer of photographic typesetting equipment seeks artist to make master drawings of printing type faces and to create new type face designs. Salary commensurate with experience.

Bb. 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. AIRBRUSH ARTIST: 8 years' experience in full line of industrial and commercial photo retouching. Creative ability in design of home appliances, radio and TV. Seeks position with progressive firm. Prefers New York City. Male, age 27, married.

B. ARCHITECT-EDITOR: Attended St. John's Univ.; Columbia Univ.; New York Univ. School of Architecture. 30 years' architectural experience; 14 years' contributing editor in this field. Knowledge of architecture, construction; and of interests of builders, owners. Prefers Pacific or Atlantic seaboard. Male, age 53, married.

C. ARCHITECT-INDUSTRIAL DESIGNER: B.F.A. in Design, Art Inst. of Chicago, 1947; 2 years' Architecture, Illinois Inst. of Technology. 10 years' industrial design and architectural experience. Experience in design, engineering, detailing, modelmaking, presentation and administration in furniture, appliances, display, interiors packaging and transportation. Has also done planning design detailing, supervision engineering and administration for residences, shopping centers, schools, hotels, hospitals, factories, office buildings, etc. Seeks position with architectural or architectural-industrial design firm. Prefers Midwest. Male, age 35, married.

D. ARCHITECTURAL DESIGNER: Graduate, Parsons School of Design, 1954. 3 years' experience with top New York design firms in store planning, shopping centers, hotels, restaurants and schools. Seeks position in Boston area. Male, age 25, single.

E. ARCHITECTURAL DESIGNER: B.A. Tohoku Univ., Japan, 1956. Experience in designing and drafting. Wish to learn American architecture by spending 4 years' in U.S. Fare will be paid by applicant. Male, age 25, single. Contact Hiroshi Kumagai, 36 Hamaichi Narusecho, Myiogi Prefecture, Japan.

F. ARCHITECTURAL DESIGNER-DRAFTSMAN: Graduate, Cologne Technical Inst., Germany, 1956. Abilities in design, sketching and construction. Desires employment with U.S. architectural firm. Male, age 23, single.

G. ARCHITECTURAL DESIGNER-DRAFTSMAN: B.Arch., Univ. of Pennsylvania, 1954; 4 years' training Texas Technological College. 4 years experience in design, working drawings, detailing, rendering and preliminaries for institutional, commercial and residential work. Desires position abroad, prefers Italy or France. Male, age 27, single.

H. ARCHITECTURAL RENDERER: 2 years', Univ. of Georgia; 1 year, Pratt Inst. 3 years' experience all phases of architectural field. Would welcome inquiries as to architectural rendering for registered, practicing

architects only. Brochure of samples sent on request. Contact David M. Ward, 421 Howard Ave., Middlesex, N. J.

I. ARTIST: Graduate, Pennsylvania Academy of Fine Arts. Professional artist. Exhibited nationally. Seeks contact with architects to submit designs on an individual or competitive basis for mural projects. Male, age 48, single.

J. ARTIST-TEACHER: Studied at Minneapolis School of Art; Walker Art School, Minneapolis; Univ. School of Fine Arts, Mexico; Univ. of Minnesota. Experience: 3 years' in university and professional school as teacher of painting, printmaking, drawing, design, art history. Male, age 33, married.

K. ARTIST-TEACHER: 4 years' Cooper Union Art School; received E. A. Abbey, Rome Prize, Guggenheim fellowships. 3 years' university, professional school teaching experience; exhibits in museum collections; experience in murals; illustrator for Fortune and Esquire. Desires full or part-time employment in New York, Connecticut area. Male, age 37, married.

L. ARTIST-TEACHER: B.F.A. (Cum Laude) 1949; M.F.A. 1951, Univ. of Southern California; Accademia di Belle Arti, Italy, 1949; Universidad Michocana, Mexico, 1952; Six Fresco Mural Commissions. Exhibited nationally and internationally. Experience: free-lance commercial art; teacher in all media. Desires position in college or university. Male, age 29, single.

M. ARTIST-TEACHER: B.S.Ed. Tufts Univ., 1954; 5 years' Museum School; traveling fellowship to Europe and Near East, 1952. Experience: 3 years' teaching in public schools; works exhibited nationally and internationally. Seeks position teaching painting, graphics or design in private or public school. Male, age 27, married.

N. DESIGNER: Free-lance designer wishes to contact manufacturers of wallpaper and/or drapery fabrics, textile or plastic, in New England, New York, New Jersey, Pennsylvania area. Willing to call periodically to show new work. Florals, scenics, geometrics and novelties. Female, married.

O. DESIGNER: Studied at Pratt Inst.; Boston Univ.; Chandler School for Women; North Shore Studio of Art. Experience in interior, furniture and fabric design. Desires free-lance opportunities in New England area. Female, age 22, married.

P. DESIGNER-HANDWORKER: Studied at Bradford Regional College of Arts and Crafts, 1949-1951; private study in Sweden, 1951-1954. Experience: interior designing, color setting, mural decorations; handwork in wood, leather, silver. Desires position as craftsman with U.S. firm, prefers California. Male, age 26, married.

Q. DESIGNER-MODEL MAKER: 11 years experience in design and model making of furniture, business machines, household products; also color formulation and application of materials. Able to execute original designs in clay, hydrocal, wood, metal and plastics. Seeks position with small industrial design group in middle or northern section of Connecticut. Male, age 33, single.

R. DESIGNING, STYLING, DECORATING STUDIO: Wide experience in designing fabrics, prints, roller and screen, wallpapers, carpets, furniture, lamps 16 years' in business. Desires free-lance opportunities. Female, married.

S. EXHIBIT-INTERIOR DESIGNER: B.F.A. Cranbrook Academy of Art, 1952; European study. Experience: exhibit-display work and set design; architectural interior planning (3-D illustrating and color); 4 years' teaching design, ceramics, weaving, metal work, on college

level. Exhibited nationally. Seeks position with exhibit-interior design firm. Male, age 33, single.

T. FURNITURE DESIGNER: European training in commercial art, display, interior design. Experience in upholstered furniture, case goods, tables, dinettes, etc. Seeks responsible position with company in New York or eastern area. Male, age 42, married.

U. FURNITURE DESIGNER: Experience in traditional and contemporary design; skilled in sketching furniture, drawing full size working details. Desires free-lance assignments. Male, age 25, married.

V. INDUSTRIAL DESIGNER: Art school training in Ireland and Canada; degrees in drawing, design. Experience in typography, printing, calligraphy, advertising layout, architecture, etc. Instructor in advertising design, Academy of Arts Newark, N. J. Desires consultant connections with industry within 100 miles of New York City. Male, age 45, married.

W. INDUSTRIAL DESIGNER: 10 years as head of Industrial Design department for large manufacturer of mechanical and electrical equipment; 2 years' experience in direction of all phases of product appearance design. Desires position as consultant or staff member with progressive manufacturer. Male, age 59, married.

X. PRINTING-ART PRODUCTION: 4 years' study at Pratt Inst. Executive experience as contact man, art and printing buyer. Desires opportunity at top level. Will forward resume and references at request. Male, age 37, married.

Y. PRODUCT DESIGNER-MODELMAKER: B.F.A. in Advertising and Product Design, Mass. School of Art, 1956. Mechanical background; some architectural design experience. Interested in developing ideas into working models. Seeks position in Boston-Worcester area. Male, age 22, single.

Z. SCULPTOR: 5 years' experience teaching own school; 3 years' teaching on university level. Wide exhibition record. Recently returned from 3 years abroad. Desires teaching position. Contact John Bergschneider, 166 Newbury Street, Boston 16, Mass.

ROOTS OF CALIFORNIA CONTEMPORARY ARCHITECTURE

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tectural forms. The indigenous work was independent in spirit, noted for its freedom of form, its asymmetry, and the flexible plan which reflected the needs of the user. And the new architecture, based like the folk work on our climate and our way of life, was maturing naturally. California was unique as an originator of architectural ideas.

Then an event occurred which was to change the pattern. This was the San Diego Exposition of 1915. Just as the Columbian Exposition interrupted the flowering of modern work in Chicago, the picture-book Spanish style adopted by San Diego for its Exposition buildings brought a sudden self-consciousness to California.

Before 1915 men with such diverse styles as Gill and the Greenes had numerous clients. Indeed their work was so popular that San Diego has hundreds of contractors' houses based on Gill's forms, fenestration and use of materials; and in Pasadena the Greenes were so widely accepted that Henry Greene says, "Plagiarism and poor copies of our work led us to discontinue publication of any of our work in periodicals."

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Nevertheless, soon after the Exposition the Greens found it advisable to close their office. Henry Greene says in explanation, "It was the flurry of interest in the superficial Spanish architecture that forced a discontinuance of our work."

Gill's practice also suffered. More crimes, he said, were committed in the name of the Spanish than in any other except Greek temples. He was no longer registered as an architect in San Diego after 1920, and in Los Angeles where he then practiced, his jobs became increasingly small. In the last ten years of his life much of his work was remodeling. His important career ended some sixteen years before his death.

Schindler and Neutra also felt the withering effects of the Exposition. Many new tracts opened in the Los Angeles area had restrictions which permitted only Spanish style houses; old and new areas had rulings that plans must be submitted to an "art jury," composed of men who had no training in or knowledge of architecture.

There were other obstacles in the path of contemporary architecture in the twenties. The greatest was the custom of loan agencies of refusing financing on houses which they believed had no "resale value." Neutra and Schindler fell into this category, and although time has proved the bankers wrong, the clients of these architects had to find private financing for their houses.

Nor did the Building Department of the city look favorably upon new design. New structural systems were involved in the work of Schindler and Neutra, for they had made contemporary architecture a structural reality, not a new face applied to traditional framing. Building permits were held up while the architects made many trips to the City Hall to prove their design to the satisfaction of the Building Department.

The owners of the first West coast modern houses were a brave people. They paid for plans that had a strange look, only to have them rejected first by the art jury of the tract, then turned back for revision by the Building Department of the city. It was not a situation to inspire confidence. And when they took

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COMPETITION

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In the first review of entries it became apparent that some had been more successful than others in the creation of controlled open spaces and clarity of plan organization. The first eliminations were almost entirely on the basis of the site plan, in that construction alone seemed to fill and crowd the site, whereas others had managed to create a feeling of enclosed and comfortable space for the whole, and also intimate and friendly courts and gardens which were considered appropriate to the University.

Some discussion of the unsuccessful designs is mentioned as being desirable in the program as it refers to the report of the jury. It was considered impossible to list the seven in order of preference, and the instructions to the jury were taken to mean the selection of the winner and the next one in order of preference.

In the limits of a jury report, it does not seem advisable or fair to attempt to do more than give the general reasons for the first elimination, four in number, other than the fact that they were less successful than others in creating enclosed spaces deemed desirable if not essential to residential buildings. In one there was a too great difference in character size and scale between the central unit and its surrounding buildings. In a second, the scheme was based on a formal arrangement on two axes, and the necessity for maintaining the formal balance made it all but impossible to achieve the residential quality of the more informal solutions. In the third and fourth, the central units became over complicated and unruly to the point of losing the fine integrated relation of outside and inside spaces so apparent in the winning design.

The three remaining entries were subject to an exhaustive analysis. The #3, #4, and #7, determined to be after the final decision, the entries of Funk, Kitchen and Hunt, Warnecke and Warnecke and Pereira and Luckman respectively, the last being the single building solution. By secret ballot at about 11 a.m. of August 14 #4 was selected by unanimous vote.

The entries #3 and #4 were essentially the same concept varying only in size and detail of the elements.

Whereas #7 presented so many distinguished qualities both in concept and architectural excellence, as well as the masterful and complete presentation, it was the collective feeling of the jury that such massive unit would be out of scale and definitely antagonistic to its surroundings, and to be successful should have a larger site and would seem to indicate a more metropolitan setting. In addition to these reasons, it was, in the jury's opinion, unable to create the intimate relation of buildings to land, and seclusion of private areas more easily contrived in a group scheme.

Thus the decision remained that first place went to Warnecke and Warnecke, and second to Funk, Kitchen and Hunt.

Each contained advantages and qualities lacking in the other, and it seems appropriate to state at this point that the kitchen dining arrangement of the second place design was found preferable and could be easily introduced in the winning design. This refers only to the placing of the kitchen on the same floor as the dining room, and could be achieved by placing storage and refrigerators, etc., on a floor below and at the same time closer to the landing dock. In both designs there was much room for improvement in these facilities.

It was considered also of the second design that the lower height of the buildings was in better scale than that of the first. At the same time, this perhaps necessitated an unfortunate meeting of the buildings at the corners, and perhaps caused the inability to avoid a conflict with the existing Durant Hotel, so successfully done in the first place design. This was considered of prime importance to the jury, who visited the site to confirm the point.

The significant points on which #4 was considered superior to #3 are as follows:

v. A better relation to flow of traffic to and from the campus to the north both as to autos and pedestrians, a more natural and inviting entrance to the whole and integration with interior rather than exterior circulation to the various elements.

2. A more attractive, informal and residential character for the central units, particularly as seen from above from rooms facing the interior.

3. A better disposal of small courts opening off of living and dining areas, and complementary relation to walks and other open areas.

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4. A more convenient location of the recreation room to the residential quarters.

5. A better plan for the residential units, particularly in regard to placing of the service elements, stairs and elevators.

* * *

In a design of this complexity it is not to be expected that a solution without fault can be achieved and the jury wishes to be on record that selection of the winner does not imply complete endorsement of all details.

The following questions arose regarding the winner, and further study and consideration is recommended for the following:

1. A reconsideration of the kitchen dining arrangement as previously mentioned.

2. Line of traffic for many students to and from meals could be improved, with less need to go through living rooms, and more provision for coats, books, etc., possibly by introducing a vestibule entry to the dining room.

3. Possibly there is insufficient covered walkaway for rainy weather.

4. The office and entry of the residence units seems inadequate for delivery of packages and other demands to be placed upon it.

5. One member of the jury expressed particular concern over the treatment and fenestration of the residential unit exteriors in doubling floors as a unit, and the terminal railing feature at the top. It is assumed by the jury that these difficulties can be solved with further study.

In summation these seem to be minor criticisms; the major difficulty in the opinion of the jury lies in the kitchen arrangement.

In conclusion, the jury feels that the competition has been conducted in an admirable manner, and to the benefit of the University. An excellent solution of brilliant simplicity has been achieved and one which is in complete harmony with the objectives and character of the University as a whole.

Respectfully submitted,
Mrs. Dorothy B. Chandler
Mr. Pietro Belluschi
Mr. John E. Dinwiddie
Mr. Farnham P. Griffiths
Mr. Paul Thiry

(Signed) John E. Dinwiddie
for the jury

ROOTS OF CALIFORNIA CONTEMPORARY ARCHITECTURE

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their plans to the bank to ask for a loan they received another shock. But that was not the last.

The final obstacle between the design of a modern house and its construction was the tradition-bound character of the building trades, who were accustomed to building by rote. The architect had to train his own crew to execute his plans; he had to spend innumerable hours on the job overseeing the work personally. As a result the modern house was more costly than the traditional one, just as today the custom-built house exceeds in cost the merchant-built one.

It is due to the staunchness of the pioneers that modern work was at last widely accepted in California—the first place in the United States.

Of the seven men whose work you see, four are living today. Charles Greene, Gill and Schindler are dead. Gill died in 1936 almost forgotten. Schindler, with his passionate interest in all details, spent his last working hours before his death in 1953 designing a mailbox for an old client.

Maybeck, now 93, sits in his garden in Berkeley in his famous red tam o'shanter and speaks of the Renaissance as if it were yesterday. "I built of materials that the men of the Renaissance would have used if they had been building in the Twentieth Century," he says.

Neutra today in his sixties, now a world figure in architecture, works with the same fervor as when he designed his first house for California in the late twenties.

The name of Wright, who continues to build at the age of 88, has become part of the American language.

What they have given to us can be read in this exhibition of photographs and plans of their work. The exhibit answers a question Gill once posed: "What rough or quarried stone will

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each of us contribute to the universal edifice, what idle or significant sentence will we write with brick and stone, wood, steel and concrete upon the sensitive page of the earth?"

Here then are the California architectural pioneers and this is their work. It belongs to us, for as Wright said once in writing of Sullivan, "The work of the pioneer is the work of a man for men."

CURRENTLY AVAILABLE PRODUCT LITERATURE AND INFORMATION

Editor's Note: This is a classified review of currently available manufacturers' literature and product information. To obtain a copy of any piece of literature or information regarding any product, list the number which precedes it on the coupon which appears below, giving your name, address, and occupation. Return the coupon to Arts & Architecture and your requests will be filled as rapidly as possible. Items preceded by a check (✓) indicate products which have been merit specified for the new Case Study House 17.

INTERIOR DECORATION—HOME STUDY

(828c) Approved supervised home study training in all phases of interior decoration. Ideal supplementary course for architects, builders, designers. No classes. No wasted time. Text and work kit furnished. Low tuition payments. Send for free booklet. Chicago School of Interior Decoration, Dept. 8286, 835 Diversey Parkway, Chicago, Ill.

NEW THIS MONTH

(292a) Custom Lighting Fixtures and Architectural Interior Metal Work: Manufacturers of custom lighting fixtures for banks, churches, residential, and offices. Also complete interior fix-

tures, desks, check and writing stands, room and office separators decorative interior murals in metal and plastic. Specializing in all metals: brass, copper, aluminum, iron, and newly developed original decorative plastics. Consultation service for design and material recommendation. Send for information and sample decorative plastic kit. Strickley & Company, 711 South Grand View Street, Los Angeles 57, California.

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;

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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.

(292a) Built-in Ranges and Ovens: Latest developments in built-in Ovens with Glide-out Broiler, also motorized Rotisserie. Table top cook top ranges (4 or 6 burners) ready for smart built-in installation. Available in colors or stainless steel to provide sparkling interest in spacious contemporary kitchens. Send for color brochure, photos, and specifications. Western-Holly Appliance Company, 8536 Hays Street, Culver City, California.

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.

(281a) Mosaics: Studio workshop offers complete line of contemporary custom mosaic table tops, mosaic murals, architectural sculpture, contemporary furniture, special leather and brass. Original designs. Maurice Bailey Designs, 968 North La Cienega Blvd., Los Angeles 46, California. Phone: OLeander 5-8654.

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.

FURNITURE

(270a) Furniture (wholesale only): Send for new brochure on furniture and lamp designs by such artists as Finn Juhl, Karl Ekselius, Jacob Kajaer, Ib Kofod-Larsen, Eske Kristensen, Pontoppidan. Five dining tables are shown as well as many Finn Juhl designs, all made in Scandinavian workshops. Write Frederik Lunning, Distributor for Georg Jensen, Inc., 633 N. La Cienega Blvd., Los Angeles 46, California.

(285a) Wholesale Furniture: Executive office furnishings, desks, tables, chairs. Custom and contemporary styling for all institutional, commercial and residential furniture. Special cabinet and upholstered pieces. Special design service. All materials, brass, wood and metals. Visit our showrooms: Monte-

verde-Young Co. (formerly Leathercraft Furniture Mfg. Co.), Los Angeles, 970 North La Cienega Blvd., or factory showrooms, 3045 East 11th Street, Los Angeles 23. In San Francisco: Fred T. Durkee, Jackson Square.

(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.

(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 Directional, Inc., Dept. AA, 8950 Beverly Blvd., Los Angeles 48, Calif.

✓(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.

(265a) Catalogue sheets and brochures available on a leading line of fine furniture featuring designs by MacDougall and Stewart. Paul Tuttle, Henry Weber, George Simon, George Kasparian. Experienced contract department at Kasparians, 7772 Santa Monica Blvd., Los Angeles 46, California. For further information write on your letterhead to above address. Showrooms: Carroll Sagar & Associates, 8833 Beverly Blvd., Los Angeles 48; Bacon and Perry, 170 Decorative Center, Dallas, Texas.

(168a) Furniture, Accessories, Retail: A remarkably comprehensive selection of contemporary furniture, fabrics and accessories. Emphasis on good design. Equipped for execution of interiors, commercial and residential.—Dan Aberle, 14633 Ventura Blvd., Sherman Oaks, Calif.

(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 Pendaflex 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.

(138A) Contemporary Furniture: Information. Open showroom to the trade, featuring such lines as Herman Miller, Knoll, Dux, Felmore, House of Italian Handicrafts and John Stuart. Representatives for Howard Miller, Glenn of California, Kasparian, Pacific Furniture, String Design Shelves and Tables, Swedish Modern, Woolf, Lam Workshops and Vista. Also, complete line of excellent contemporary fabrics, including Angelo Testa, Schiffer Prints, Elenhank Designers, California Woven Fabrics, Robert Sailors Fabrics, Theodore Merowitz, Florida Workshops and other lines of decorative and upholstery fabrics.

These lines will be of particular interest to Architects, Decorators and Designers. Inquiries welcomed. Carroll Sagar & Associates, 8833 Beverly Boulevard, Los Angeles 48, California.

HARDWARE

(215a) Reflector Hardware Corp. announces new 55-S SPACEMASTER Catalog. Contains 128 pages, over 650 illustrations of most advanced merchandising equipment on market. Includes: Wall Sections, Counter Set-ups, Island Units, Signing Equipment, Shelving, Splicing and Binning Equipment. Most complete merchandising equipment catalog printed. Available from the Reflector Hardware Corporation, Western Ave. at 22nd Place, Chicago 8, Illinois or 225 West 34th St., N. Y. 1, N. Y.

✓(204a) Contemporary Locksets: Illustrated catalog on Kwikset "600" Locksets, 6 pin tumbler locksets for every door throughout the home; suitable for contemporary offices, commercial buildings. Features: 5-precision-matched parts for easy installation; dual locking exterior locksets—simplified cylinder reversing—may be reversed for left or right-handed doors. Stamped from heavy gauge steel, brass. Available in variety of finishes. For free catalog, write to Wm. T. Thomas, Dept. AA, Kwikset Sales and Service Company, Anaheim, California.

HEATING, AIR CONDITIONING

(55) Water Heaters, Electric: Brochure, data electric water heaters; good design.—Bauer Manufacturing Company, 3121 W. El Segundo Boulevard, Hawthorne, California.

(267a) Write for free folder and specifications of "Firehood," the conical fireplace, designed by Wendell Lovett. This metal open hearth is available in four models, black, russet, flame red and white, stippled or solid finish. The Condon-King Company, 1247 Rainier Avenue, Seattle 44, Washington.

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

(277a) Lighting Fixtures: Complete information on contemporary lighting fix-

tures by Chiarello-Frantz. Feature is "Light Puff" design: pleated, washable, Fiberglas-in-plastic shades with anodized aluminum fittings. Accessories include wall brackets, floor and table standards, and multiple canopy fixtures for clusters of lights. Write to: Damon-Kaufmann Inc., 440-A Jackson Square, San Francisco 11, California.

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

(272a) Radiant Heating Systems and Service: A complete service in the field of Heating and Air Conditioning, Rusherheat, Inc. engineers, fabricates and installs radiant heating systems for residences, terraces, pools, commercial and industrial applications. This company is in a position to be neutral in the usual controversy of radiant heating and air conditioning versus warm air heating and air conditioning since it specializes in both fields. Rusherheat, Inc., 920 No. La Brea Ave., Inglewood, California. Phone: ORegon 8-4355.

(268a) Electric Radiant Heating Panels: Provide constant heat with nearly perfect BTU radiation. Invisible installation in ceilings. Operated manually or automatically by thermostat. Separate control for each room if desired. Assures constant normal room humidity with complete efficiency. Lower installation costs. For information write to F. Scott Crowhurst Co., 847 No. La Cienega Blvd., Los Angeles 64, 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.

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.

(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.

(288a) Lighting Fixture: The new double arm, precision positioned, adjustable Luxo lamp is ideal for decorators' studios, plants, hospitals, as well as the home. Moving arms permit easy change of position. Lamp can pivot in a circle 90" in diameter. The shade remains stable while the arms are in motion, yet may be raised, lowered or tilted at any angle. A variety of mounting brackets are available for wall, desk or sloping surfaces. Obtainable in various sizes and colors, Incandescent and Fluorescent. For catalogues of specifications and prices write Luxo Lamp Corporation, Dept. AA, 464 Bryant Street, San Francisco 7, Calif.

✓(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: Sky-dome, 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.

(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.

(231a) Aluminum Honeycomb Lighting: Complete information now available on this new approach to full ceiling lighting—Honeylite. Made from high purity aluminum foil by special "Hexcel" process. Honeylite is now available in various cell sizes. Information describes acoustical value, excellent light transmission efficiency. Its adaptability to any lighting fixture now using glass plastic or louvers is noted and its fireproof and concealing qualities listed. For complete illustrated information, write to M. J. Connelly, Hexcel Products, Inc., Dept. AA, 951 61st Street, Oakland 8, California.

(234a) Multi-Plex: Recently introduced by Leadlight Fixture Company, Multi-Plex is a complete series of fully

enclosed modular slow-brightness light-diffusing units. As described in new catalog, this handsome line features Plexiglas diffusing drop-panels, uniform diffusion and efficient distribution. By combining units in various patterns, unlimited range of designs for any existing or new ceiling is possible. Catalog also describes material and make-up, high-reflectance finish and easy installation of luminaries. For detailed information, write to Leadlight Fixture Co., Dept. AA, 10222 Pearmain St., Oakland, Calif.

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

(938) Paint Information Service—authoritative, complete—especially for Architects. Questions to all your finish problems answered promptly and frankly, with the latest information available. No obligations. Also color samples and specifications for L & S Portland Cement Paint, the unique oil-base finish for masonry, galvanized steel. Used on the West's most important jobs. General Paint Corp., Architectural Information Department, 2627 Army St., San Francisco 19, 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.

(213a) Gelvatex Coatings: "First of the vinyl emulsion paints"—These paints have proved their outstanding durability in England, Africa, Canada, France, Australia, New Zealand. Available for all surfaces in wide range of colors. Advantages: lasts up to 7 years or longer; may be applied on either damp or dry surface; dries in 30 minutes; flows on in 25% less time; not affected by gasoline, kerosene, lubricating oils or greases; highly resistant to acids, gases, sun, salt air, smog. Gelvatex film lets surface breathe, will not trap moisture vapor, rain cannot penetrate. For informative literature write to Larry Blodgett, Dept. AA, Gelvatex Coatings Corp., 901 E. Vermont, Anaheim, Calif.

(185a) Plymolite translucent-fiberglass reinforced-building panels. A new lightweight, shatterproof material with a thousand uses; for home, office, farm or factory. Lets light in but keeps weather out. Plymolite is permanent, beautiful, weatherproof, shatterproof, and easy to use. Plymolite may be worked with common hand or power tools and may be fastened with ordinary nails and screws. Available in a variety of flat and corrugated sizes and shapes, also a selection of colors. Both structural and technical information available. Plymold Company, 2707 Tulare Ave., Burbank, Calif.

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NOTE: Literature cannot be forwarded unless occupation is shown. 106

(227a) Mikro-Sized Tile—Newly perfected, precision ground tile described as most important development in 20 years of tile making. Reduces setting time, insures perfect alignment of joints, even on adjacent walls and integral corners. Spacing lugs on two edges only—twice the size of regular lugs—providing standard 3/64 inch joints. Time saved by elimination of shimming, sanding, juggling as tiles are uniform in size. For detailed information, write to Mr. Allan Paul, Adv. Mgr., Gladding, McBean Company, Dept. AA, 2901 Los Feliz Blvd., Los Angeles, Calif.

(107h) Tropi-tile: Unusual acoustical tile, unique in texture, beauty and design. Fiberglass backing for noise absorption dramatically camouflaged by the strength and beauty of handsome woven wood surfacing. Can be made to harmonize with any type decor specified and all convention methods of application apply. A development of Tropi-craft of San Francisco, 14 Sherwood Pl., San Francisco 3, Calif.

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

(196a) Panel Tile: New Polystyrene wall tile in 9-inch squares, textured, striated front surface, "sure-grip" diamond back. Eleven popular colors are built in, cannot fade, chip, peel off or discolor. Washable, scratch and mar proof, withstands heat, will not rust, rot, warp or swell. Well suited for residence, business, industrial and institutional installations. Can be installed over any firm, smooth, sealed wall, such as plywood, sheetrock, plaster board or plastered walls. Further information will be supplied by New Plastic Corp., 1025 N. Sycamore, Los Angeles 38, Calif.

(924) Sash and Trim Colors: Folder strong, durable sash and trim colors ground in treated oils; pure, light-fast pigments combined with specially formulated synthetics; won't check, crack, withstands discoloration, retains gloss, flows easily but won't run, sag; good hiding capacity; worth investigation.—General Paint Corporation, 2627 Army Street, San Francisco, Calif.

(228a) Mosaic Western Color Catalog —In colors created especially for Western building needs, all of the clay tile

manufactured by The Mosaic Tile Company is conveniently presented in this new 8-page catalog. Included in their various colors are glazed wall tile, ceramic, Velvetex and Granitex mosaics, Everglaze tile and Carlyle quarry tile. Completing the catalog is data on shapes, sizes and trim, and illustrations of a popular group of Mosaic All-Tile Accessories for kitchens and baths. For your copy of this helpful catalog, write The Mosaic Tile Company, Dept. AA, 829 North Highland

(195a) Corrulux: One of oldest of translucent plastics, now greatly improved. Reinforced with inorganic, non-combustible flame barrier core. Variety of colors, light weight, shatterproof. Ideal for patios, carpools, skylights, monitors and sawtooth, fenestration for factories. Can be sawed, drilled, nailed. Corrulux Division of Libbey, Owens, Ford Glass Company, Room 1101, 3440 Wilshire Blvd., Los Angeles 5, Calif.

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

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 "alligating." 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

(290a) Indoor Movable Shutters—Illustrated brochure shows many features and installations of Paul Heinley Indoor Movable Shutters—with details on newest shutter treatment, Shoji Shutters. Specifications include construction details, methods for installing and information for ordering or requesting bids. Paul Heinley, 2225 Michigan Ave., Santa Monica, 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.

(284a) Solar Control Jalousies: Adjustable louvers eliminate direct sunlight and skylare at windows and skylights; some completely darken for audio-visual. Choice of controls: manual, switch-activated electric, completely automatic. In most air-conditioned institutional, commercial and industrial buildings, Lemlar Solar Control Jalousies are actually cost-free. Service includes design counsel and engineering. Write for specifics, Lemlar Corp., P. O. Box 352, Gardena, California; telephone FAculy 1-1461.

(217a) New aluminum sliding glass doors: Complete literature and information now available on Ador's new model all aluminum doors at competitive prices. Data on unusual design flexibility, rigidly secured corners with heavy gauge fittings for slim lines, extreme strength. Description of complete four-way weather sealing, corrosion resistant finish, centering rollers for continuous alignment, elimination of rattles. Charles Munson, Dept. AA, Ador Sales, Inc., 1631 Beverly Boulevard, Los Angeles 26, California.

(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" scal 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.

(212a) Panaview Aluminum Sliding Windows: Complete Panaview 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, Panaview, 13434 Raymer St., No. Hollywood, 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.

(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.

(210a) Soulé Aluminum Windows; Series 900: From West's most modern alumiluting plant, Soulé's new aluminum windows offer these advantages: alumilite 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.

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.

(276a) Inter-communication Systems: (Merit specified for Case Study House #17.) All type panels and systems for residential use, office or industrial. Write for information, Paul Beale, Talkmaster, Inc. (Dalmotron), San Carlos, California.

(289a) Sound systems—HI-FI and Inter-communication. All types of sound systems for residential, office, industrial, churches, schools, etc. Complete design and installation service. Complete stock of quality component parts. Visit our showrooms. Free consultation service. Write for information, etc. CALIFORNIA SOUND PRODUCTS, INC. 7264 Melrose Avenue, Hollywood 46, Calif. Phone: WEbster 1-1557.

SPECIALTIES

(249a) Fireplace tools and grates: Profusely illustrated brochure showing firetools, stands and wall brackets, and irons (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.

(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.

(271a) Drafting Board Stand: Write for free descriptive folder on versatile drafting board stand. This sturdy, all-position metal stand attaches to wall, desk, table. Swings flush against wall when not in use. Two models to fit any size drafting board. Swivel attachment available. Releases valuable floor space. Art Engineering Associates, 3505-A Broadway, Kansas City 11, Missouri.

(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.

STRUCTURAL MATERIALS

(275a) Harborite Plywood: The miracle overlaid fir plywood—super-resistant to wear, weather and water, now available in unlimited quantities to the building industry. These large, lightweight panels are easy to handle, easy to work, cut labor and paint costs. Only select Douglas Fir veneers are used, and machine-edged and butted tight. All solid wood—no core voids—no flaws. Waterproof glue makes permanent weld. Resin-impregnated overlay makes perfect paint-holding surface. Write for brochure and information on local dealers, Harbor Plywood Corp., Aberdeen, Washington.

(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.

(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 ply-

wood 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.

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

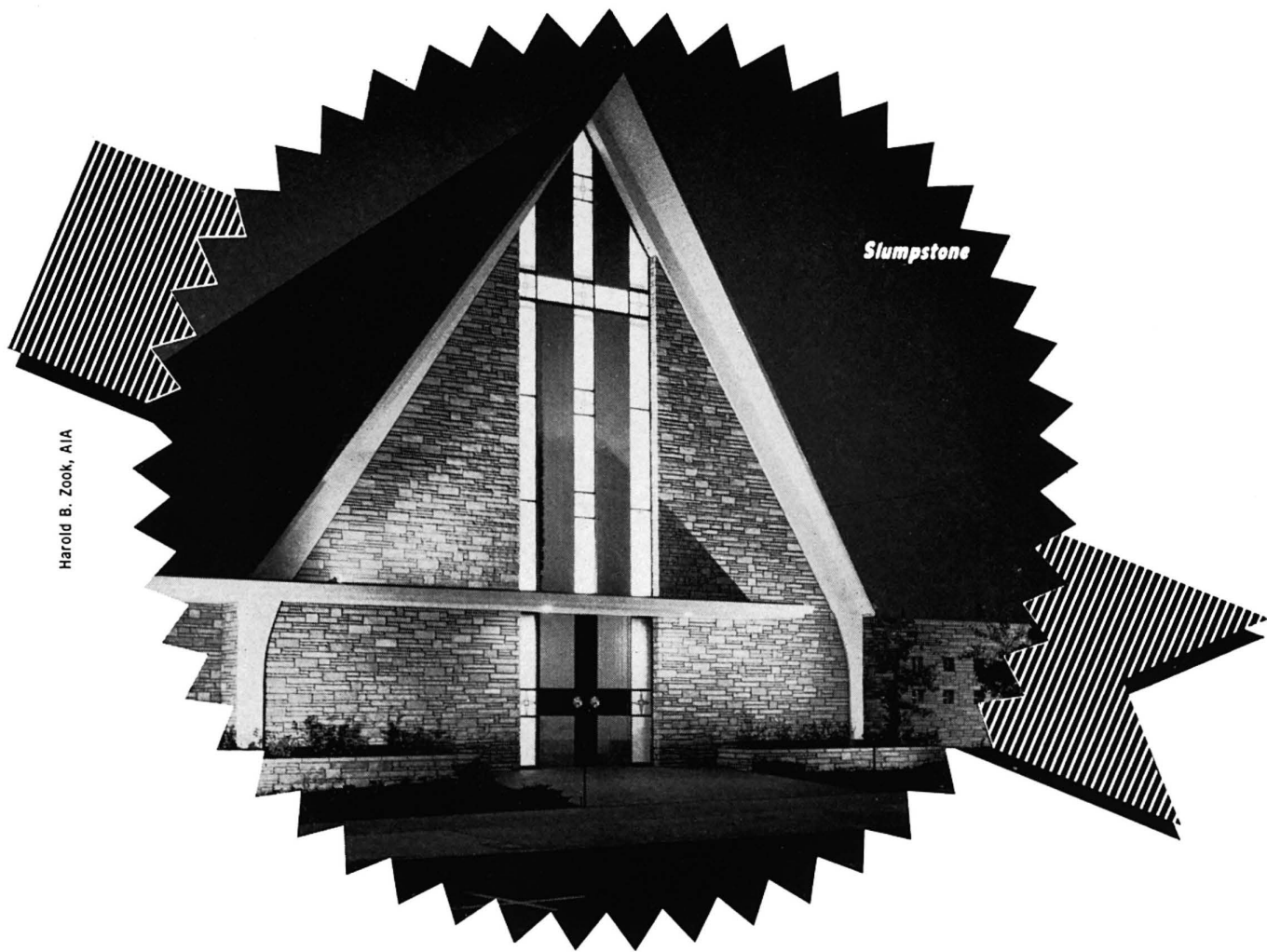
(179a) Filon-fiberglas and nylon reinforced sheet: Folder illustrating uses of corrugated or flat Plexolite in industry, interior and outdoor home design and interior office design. Technical data on Filon together with illustrated breakdown of standard types and stock sizes; chart of strength data and static load. Additional information on Filon accessories for easy installation.—Filon Plastics Corporation, 2051 E. Maple Avenue, El Segundo, California.

(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.

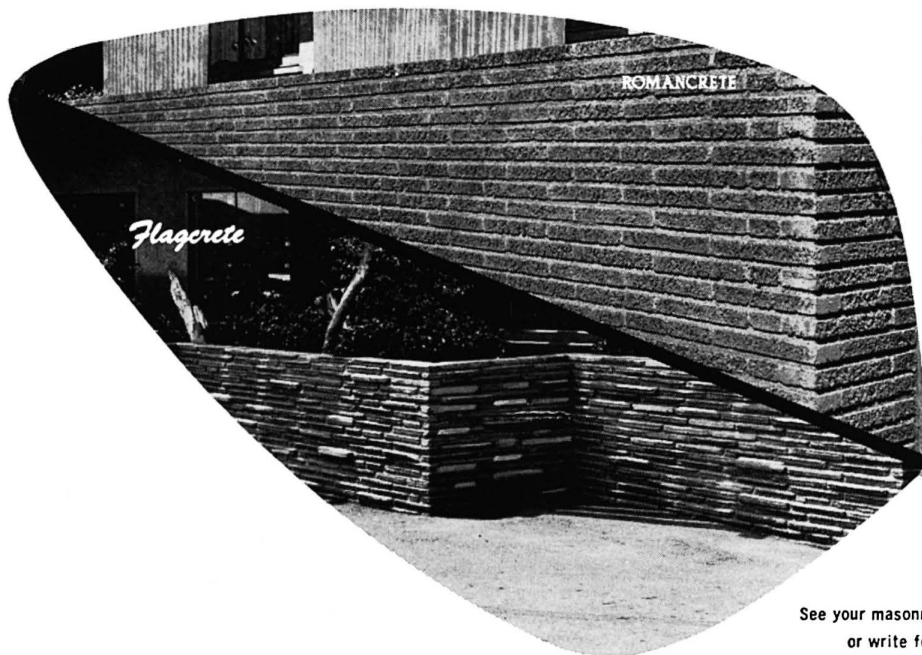
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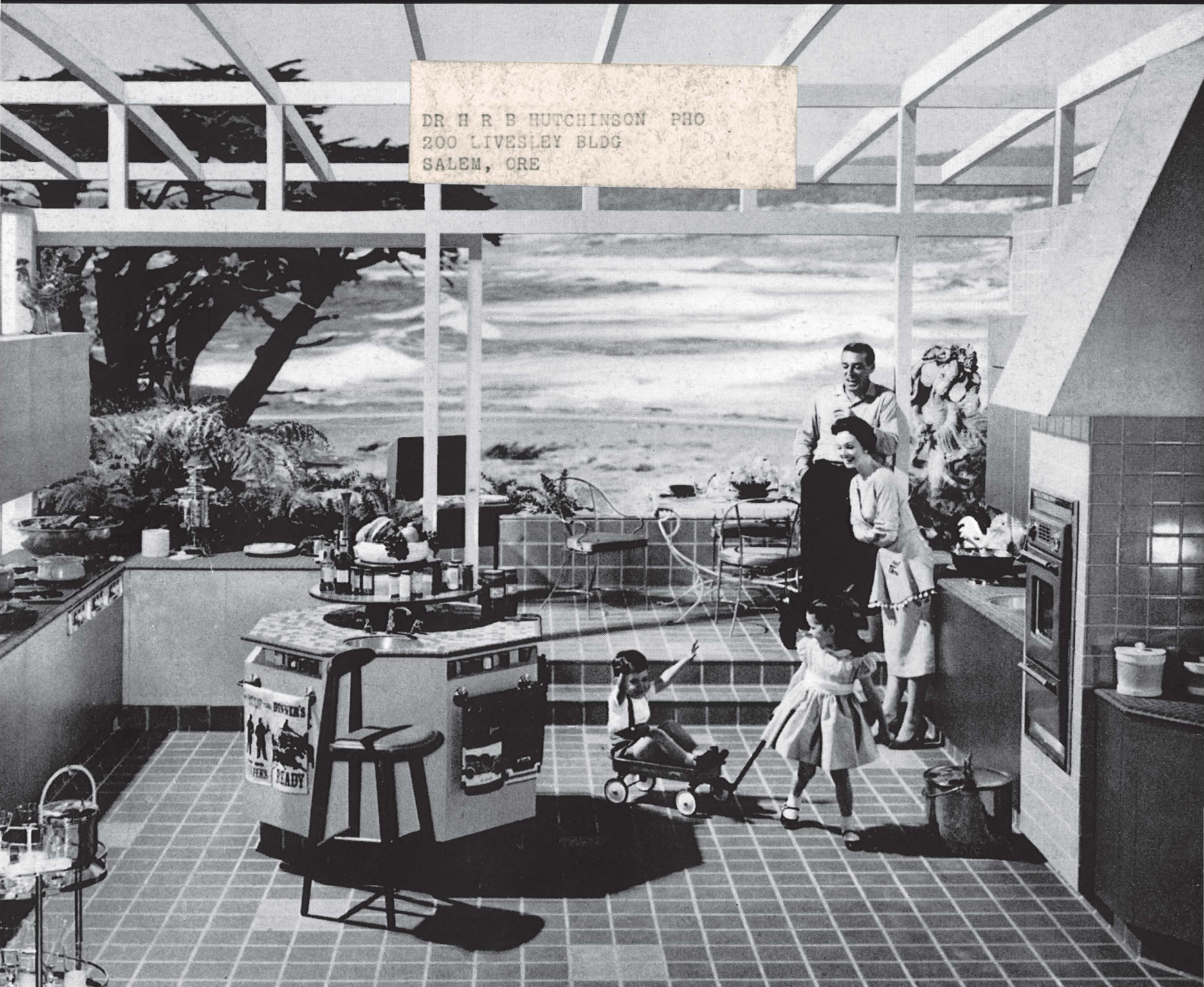
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