

arts & architecture

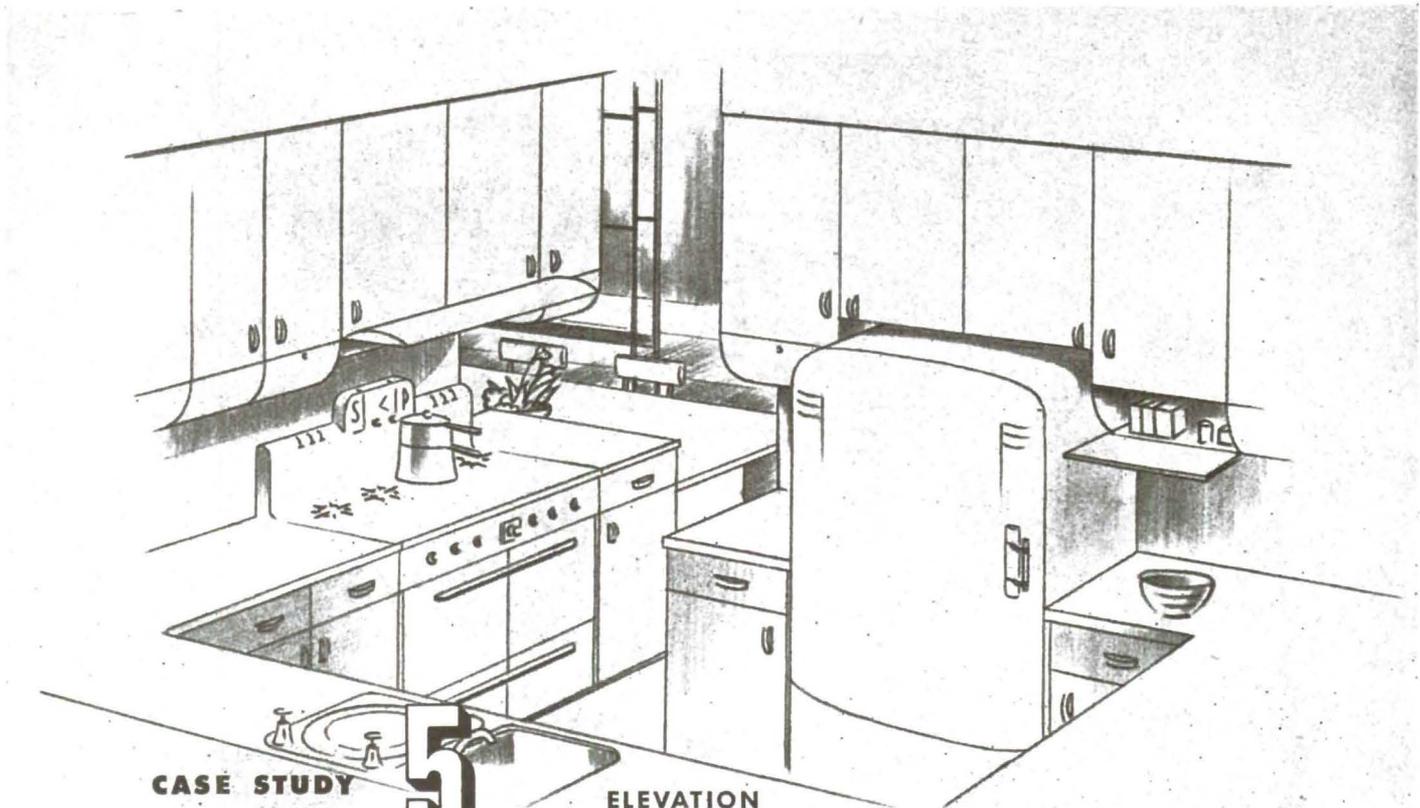
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DECEMBER 1945 • CASE STUDY HOUSES #8 AND #9

maller

THE MODERN APPROACH FOR MODERN KITCHENS



**CASE STUDY
HOUSE NO.**

5

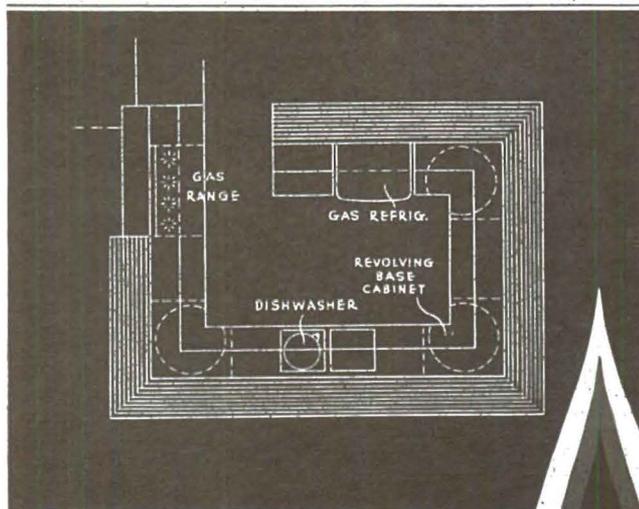
By Whitney R. Smith, Architect, in cooperation with the Home Planning Bureaus of Southern California and Southern Counties Gas Companies.

ELEVATION

Continuous counter surface throughout kitchen to dining area.

FLOOR PLAN

Compact arrangement designed for small areas where it is most important to take full advantage of every square foot.



Arts and Architecture Magazine and the Architect, Whitney R. Smith, have selected all-gas equipment for Case Study House No. 5 because — it's modern in appearance and performance. Gas is practical! Be sure your designs provide gas for cooking, refrigeration, water heating, and space heating.

Design for



GAS

SOUTHERN CALIFORNIA GAS COMPANY
SOUTHERN COUNTIES GAS COMPANY

arts & architecture

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CONTENTS FOR DECEMBER 1945

articles

Report on Creative Life in Berlin	32
Approach to Space	33
Exploration of New Film Techniques	38
Adventure in Education	42

architecture

Small Modern Shop by Office of Summer Spaulding— John Rex, Architects	40
Case Study Houses #8 and #9	43

These houses, upon which additional material will appear in subsequent issues of the magazine, are a part of a continuing series by nationally known architects for Arts & Architecture's Case Study House Program.

special features

Art	10
Books	22
Music	24
Music in the Cinema	26
Notes in Passing	31
Who Am I?	36
New Developments	53

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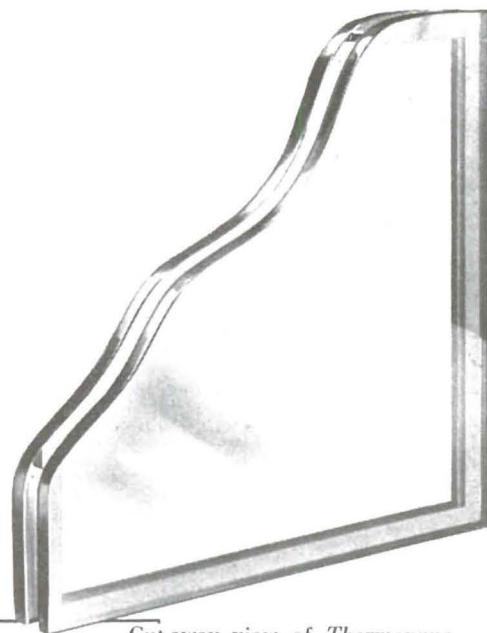
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Cut-away view of *Thermopane*—the windowpane that insulates.



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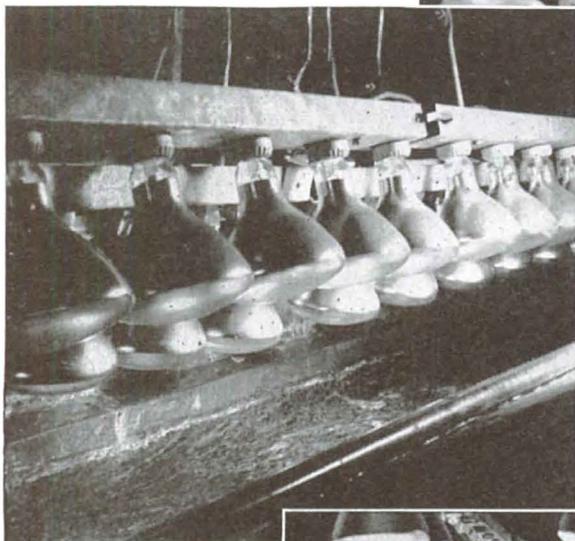
However, your department or appliance store usually has Western-Holly gas ranges. If you can't get one immediately, it's better to wait for . . . Western-Holly, The Mark of Excellence on Gas Ranges.

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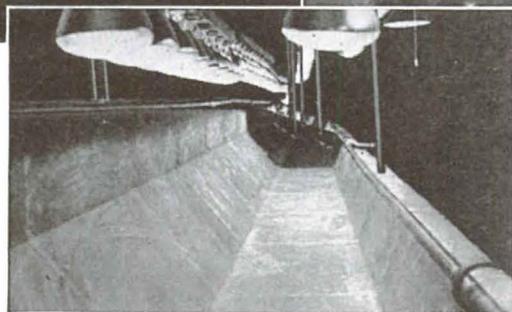
CULVER CITY, CALIFORNIA

LOS ANGELES: FURNITURE MART • SAN FRANCISCO: WESTERN MERCHANDISE MART

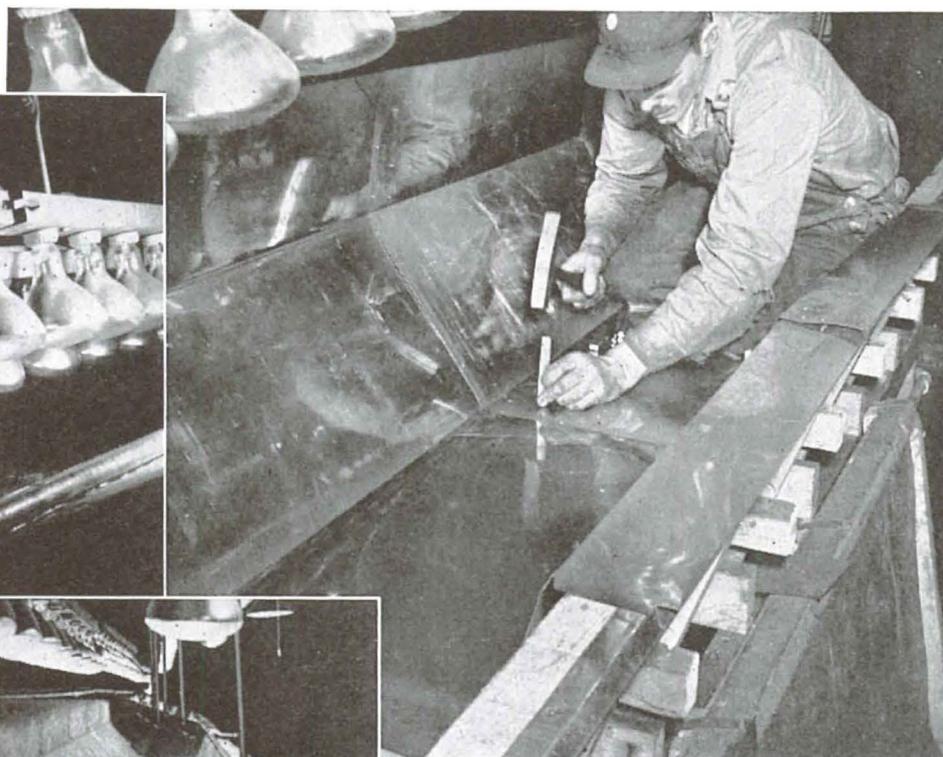
Better sheet copper construction ... thanks to REVERE research



Here cold water can be seen pouring into a heated copper gutter undergoing test. The behavior of the gutter during expansion and contraction was recorded by motion picture photographs.



Completed test gutter. By means of electric heating lamps and torrents of cold water, it was possible to create a temperature range of 160° F.



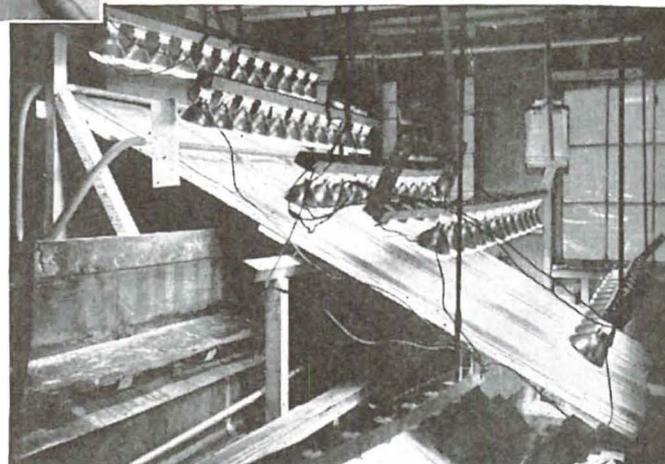
Installation of test gutter in Revere laboratory, duplicating a gutter which has given 70 years of perfect service on a public building.

Several years ago, Revere set out to discover why many old-time sheet copper installations have stood up better than some of the modern ones—despite refinements in copper as well as in the technique of installation.

The reason, discovered and confirmed by painstaking work in the Revere laboratory, is simply this—any sheet copper installation must have enough columnar strength to expand, when heated, without buckling. Alternate buckling and straightening, with expansion and contraction due to outdoor temperature extremes, is the real cause of failure.

From these findings, Revere has been able to reduce the principles of sheet copper construction to a matter of engineering design, with the assurance of satisfactory performance.

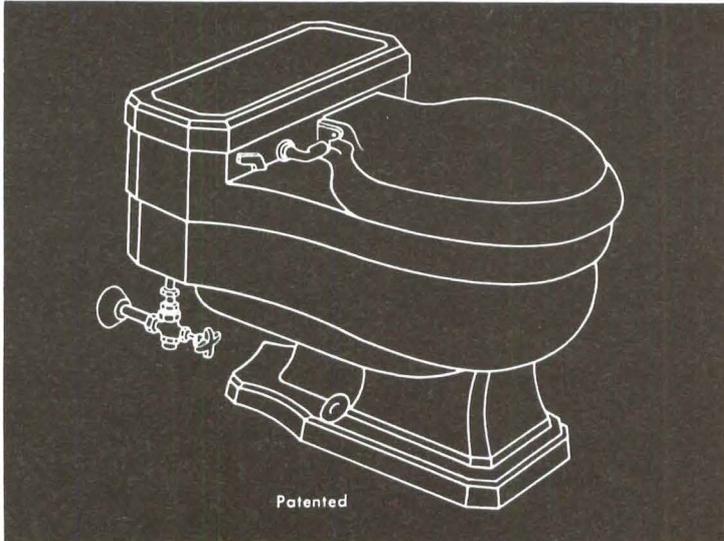
Details are described and illustrated in the new Revere booklet, "Copper and Common Sense". To be sure of receiving a complimentary copy, architects, contractors and engineers should write the Revere Executive Offices. Revere materials are handled by Revere Distributors in all parts of the country. The Revere Technical Advisory Service, Architectural, is always ready to help you.



Exhaustive tests were also conducted on experimental copper roof panels and other installations in order to cover every phase of sheet copper construction.

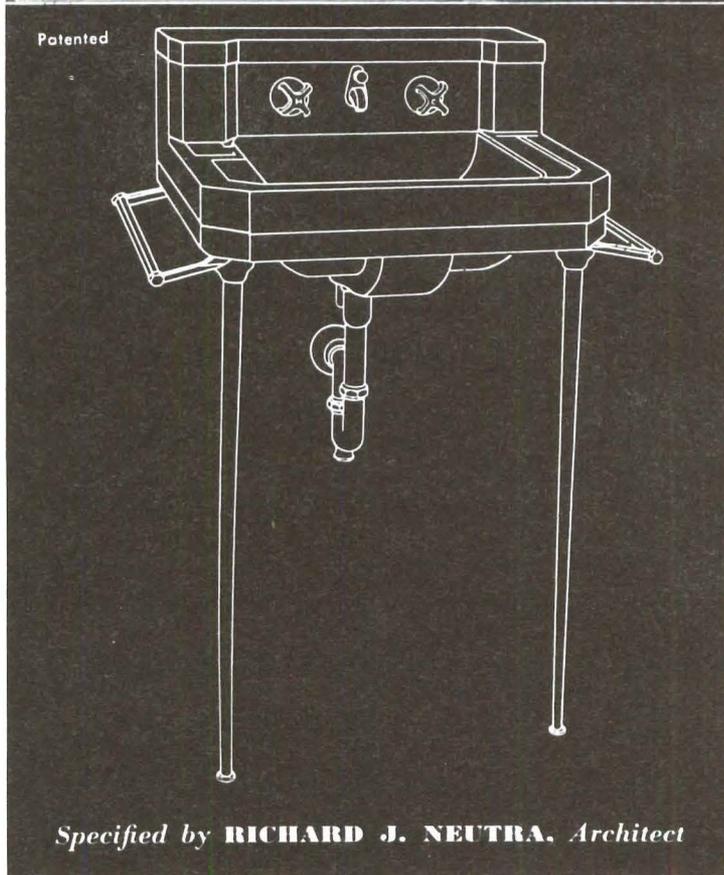
REVERE
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THIS IS
C S I #6
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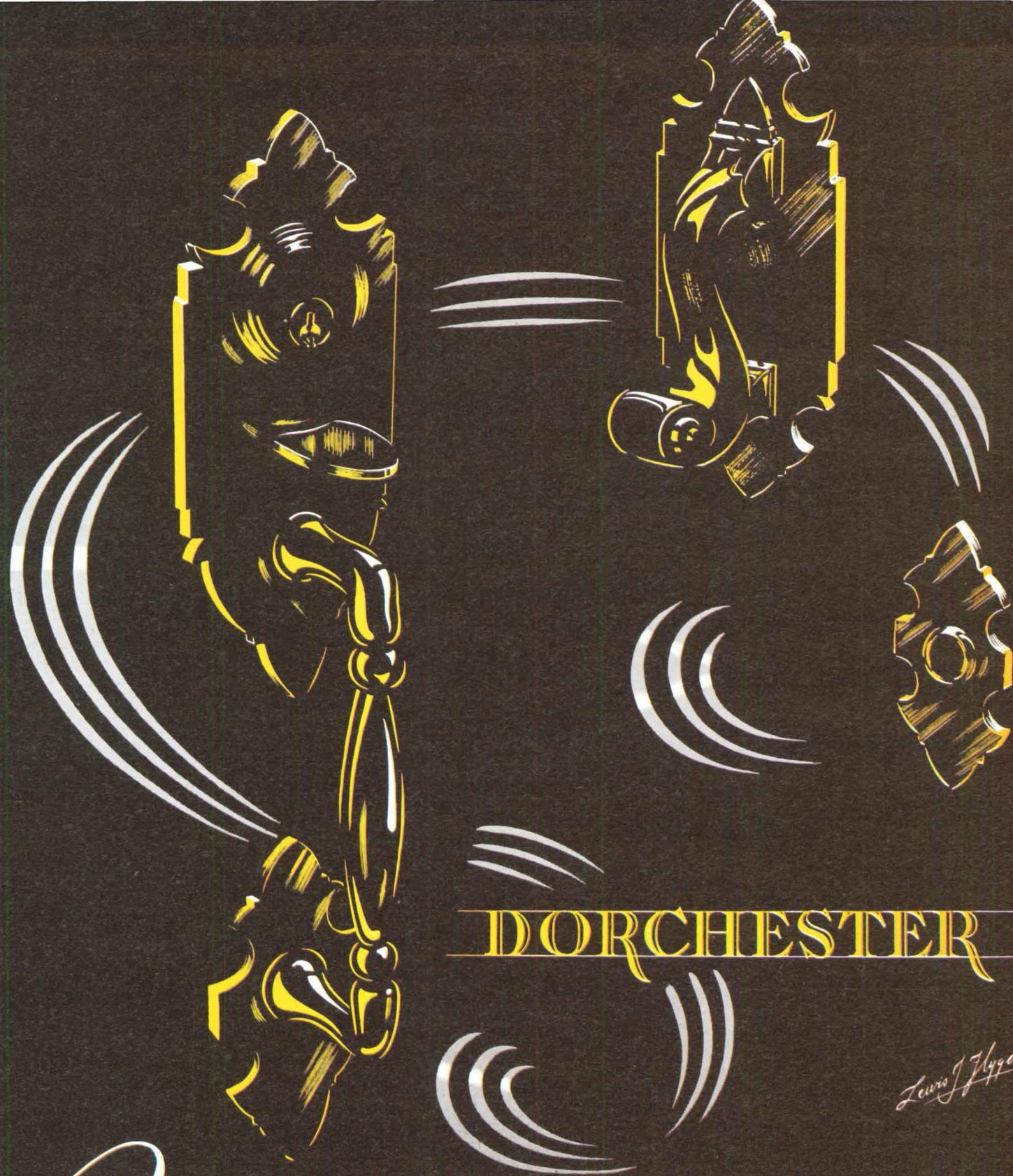
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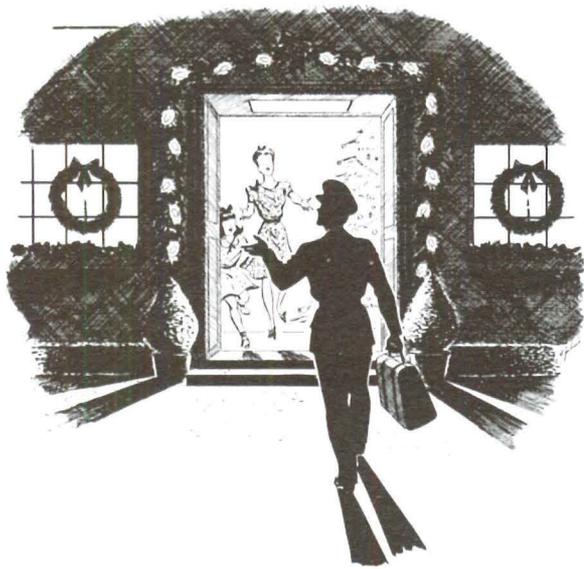
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NEW YORK



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This Christmas, of all years, millions of tiny colorful Christmas lights all over America, will say "Welcome Home" to our valiant sons, returning from the darkness and desolation of world battlefields.

On trees and shrubs, on streets, in public parks — but, most of all, in homes — these twinkling lights will tell how glad we are to see them — will symbolize our gratitude, too deep for words.

And like bright stars, brought close to earth, they will proclaim our heartfelt wish for lasting peace, good will toward men.



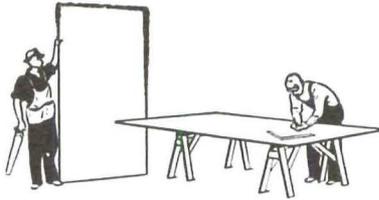
**NORTHERN CALIFORNIA
ELECTRICAL BUREAU**
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ART

There is undoubtedly no better time than the Christmas season to take stock of the world in which we live. On the streets, in the shop windows, on the display counters are to be found, in inescapable profusion, the tangible assets and debits of our culture. And just as inescapable are the intangible undercurrents of that culture. In the goods for sale, in the holiday trimmings, in the harassed gift-list makers, there is revealed the pitiful testimony of a way of life in which art has no part. Not the "art" of museums, not the "art" for sale at Christmas budget prices, but art as a way of making things, art as a way of doing things. We are revealed as a people with the shell of a tradition whose meaningfulness has been all but lost in a superstructure based on the exchange of worldly goods. When the emphasis of value rests in the material object, the material object is deprived of content; it consists of nothing more than what the eye sees. And the eye is but an instrument, however miraculous. Animals of prey have better vision than men, but men have something beyond sensory experience and conditioned reflexes. That "something," whether it is called religious, spiritual, a belief in something greater than the self, a reverence for life, or whatever else that is capable of leading men to overcome chaos and evil, resides *within* man. It involves his capacity not only for intelligence but also for belief, for love, and for his capacity to do good toward his fellow beings. Man strives to establish order, but to seek order there must be recognition of the importance and the need of order, a set of values which does not violate the wholeness of man. Inner order expresses itself in outward order.

Today there is very little manifestation of inner order. What is worse, there seems to be no awareness of an absence of order. The evidence is on every side—the houses that most of us live in, by choice or necessity, are monuments of disorder. Inside and out they are laden with ugliness, shoddy materials, inconvenience. And the things that go in the houses, whether cheap or costly, create confusion and unrest. There is no order in period furniture for *us*, however orderly it may have been in its own time; and there is certainly no order in the hodge podge of odds and ends, handed down, picked up at a sale, or otherwise acquired with the sole object of furnishing a house. If we find this kind of disorder in the pivot place of our existence—the home, and all the objects of our daily living—it is not surprising to find the same disorder in the merchandise now passing as gifts for the Christmas trade. They are all part of the same fundamental disorder and spiritual impoverishment. It is quite easy to blame "war conditions" in labor and materials for this depressing account of our culture. But war itself is merely the most overt sign of the chaos in our life, a way of life which has lost a sense of values and proportions—the sense of order. It is significant that this lack of inner order has reached the outermost periphery of casual objects of use and adornment. There is no parallel in history for the assortment of gadgets and trivia which clutter our lives. The list is endless. However different in kind, there is one thing which with few exceptions they all have in common—a lack of design: order which has meaning. In its place there is imitation, *pictures* of things, *models* of things. Once a deck of playing cards was highly formalized and decorative, pleasing and suitable to the use for which it was made. Today these cards are covered with "scenes"—huntsmen, pretty girls, dogs, bouquets of flowers, colonial ladies and gentlemen—all in "natural" colors. Table mats have similar scenes, garish, uninviting to the appetite; lamp shades have pictures on them. Cigarette boxes, ash trays, "ornaments" of all kinds, salt and pepper shakers, are made in the shapes of houses, hats, pianos, and all the creatures of the barnyard and the forest. Cocktail glasses are covered with Spanish dancers, Russian peasants, Mexican peons, or strip tease ladies. Tiny plants grow from the backs of donkeys, fawns, ducks, the aprons of children, or a ceramic shoe. Jewelry, once of formal or abstract design, now copies birds, butterflies, and flowers, and even descends to caricatures of heads, dancers, and "humorous" animals. Trinket bracelets have minuscule replicas in silver of every conceivable object, from grand pianos to corsets, while diamonds, rubies, and sapphires are sometimes in settings the shape of airplanes, battleships, or flags.

It is an inevitable fact, of course, that this impoverished "content" of
continued on page 18



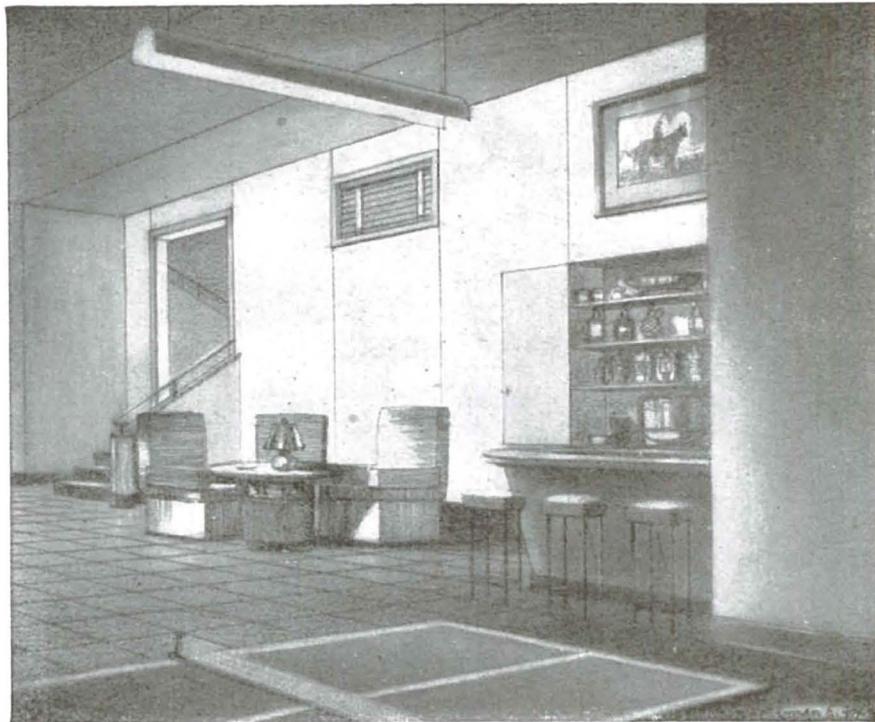
There are three grades of Douglas fir plywood panels made especially for various phases of wall construction. PLYWALL is made especially for standard wallboard use; PLYPANEL is a premium panel used for quality interior work; PLYSCORD is a utility panel made for wall and roof sheathing.

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Fir Plywood...
easy to plan,
easy to apply!*

There is no special or complex planning necessary in designing a wall treatment with Douglas fir plywood. Just follow a few basic suggestions—and the variation of finished design is almost endless.

One of many possibilities is illustrated here. In this case, the panels of Douglas fir plywood have been placed so that the vertical joints lend a pleasing design and at the same time give the basement playroom an illusion of extra height. As in all cases, the architect started with the openings and divided the plain wall spaces in an orderly pattern for the most pleasing effect. This particular basic design treatment is diagrammed at the right.

Douglas fir plywood is an ideal material for walls —



Follow these Simple Suggestions in Planning Wall Designs with Large, Durable Plywood Panels!

strong, rigid, kick-proof and puncture-proof. No matter what design treatment is used, the large, light-weight panels go up quickly and easily. They can be worked by hand or with power tools and they hold nails or screws right at the edge without danger of splitting.

Remember — the variety of wall design treatments is limited only by the architectural plan and the ingenuity of the designer. For more detailed information about plywood for wall construction, write the Douglas Fir Plywood Association.

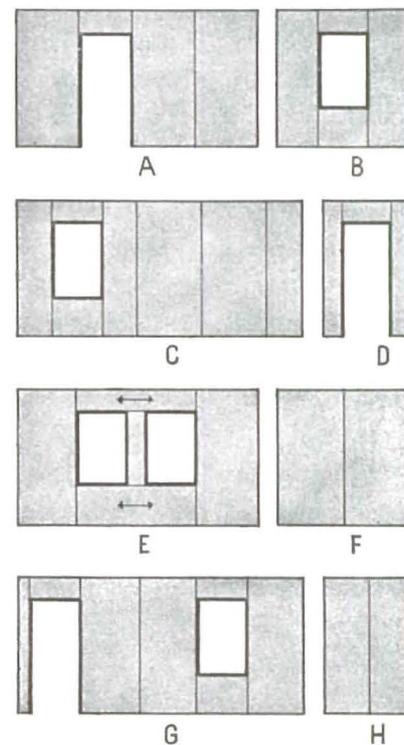


DOUGLAS FIR PLYWOOD ASSOCIATION

Tacoma 2, Washington

No. 6 of a Series

*Vertical Treatment of Panels
For an Attractive Wall Design*



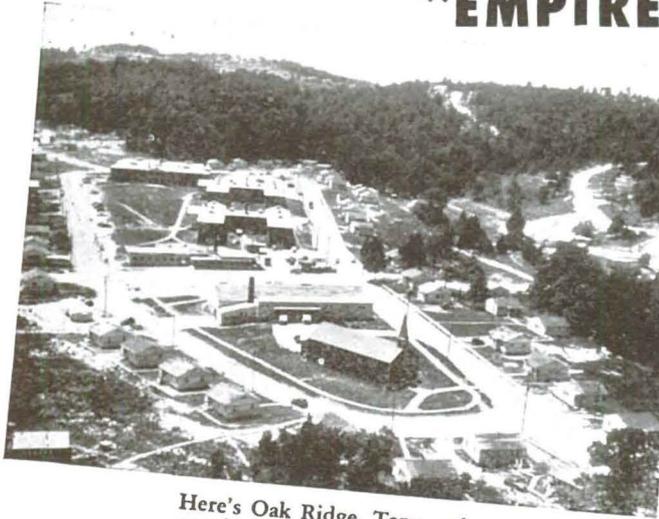
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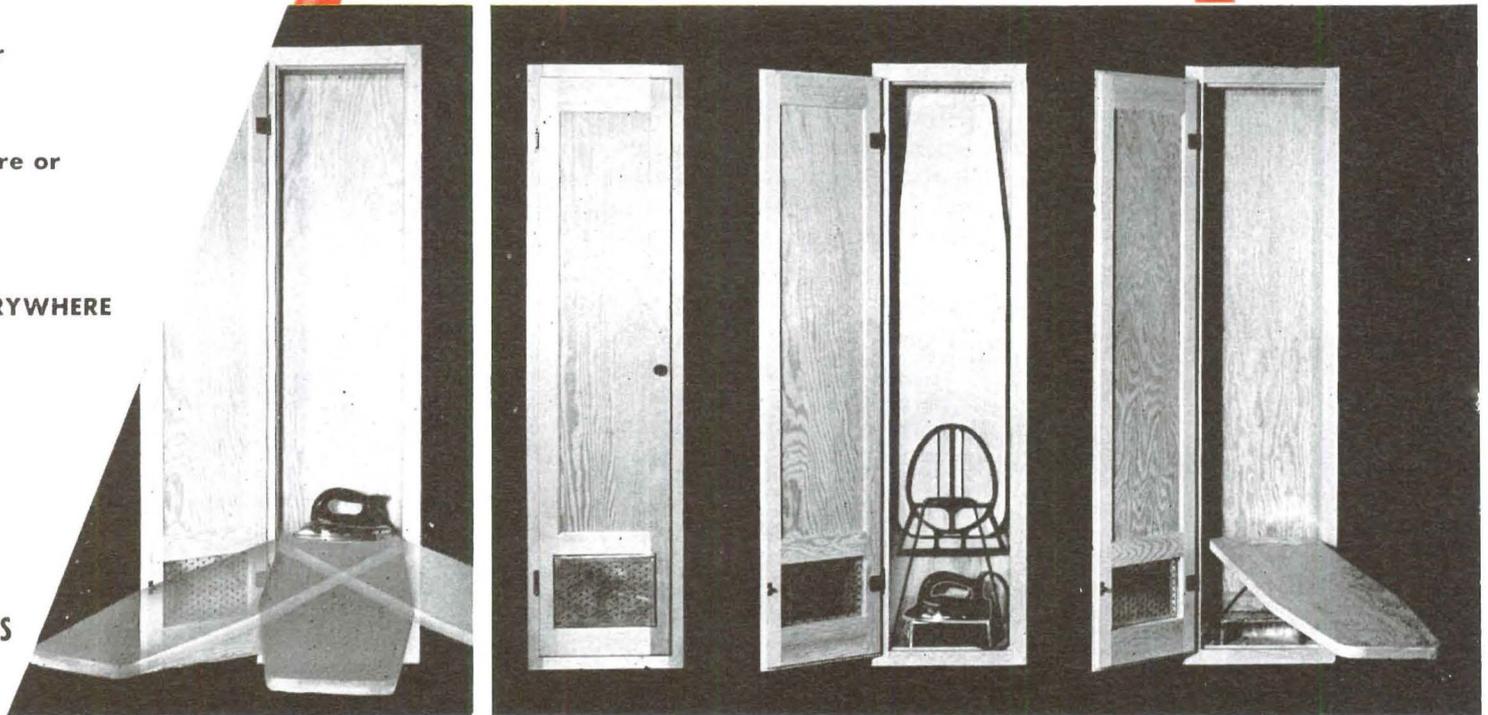
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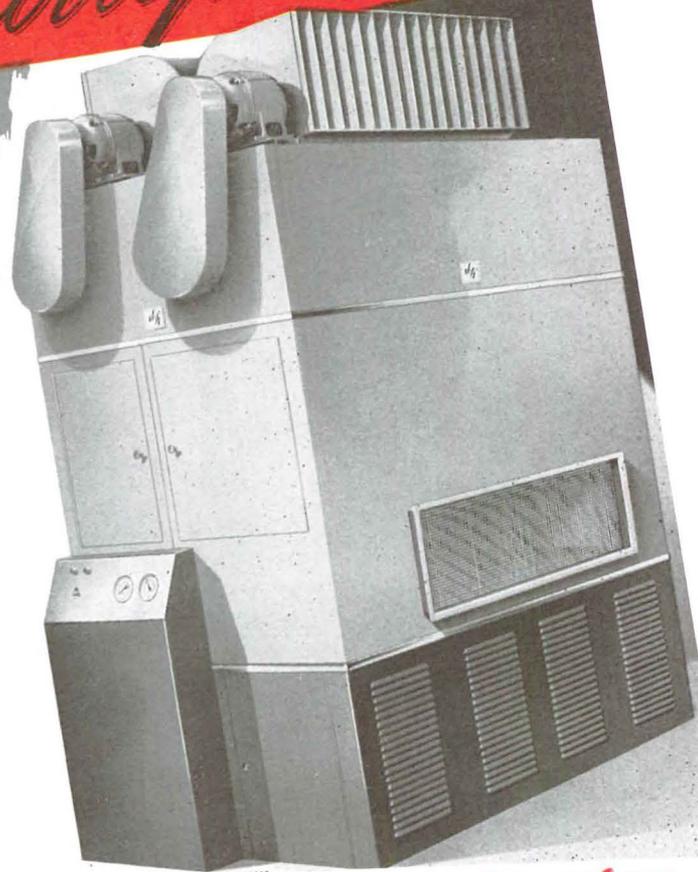
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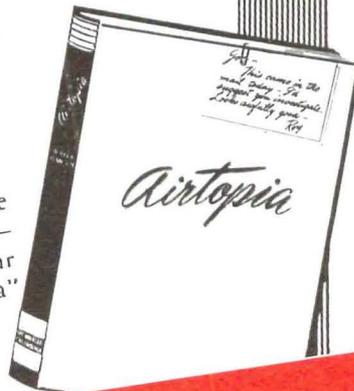
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Are your ears burning...
MR. ARCHITECT?

THE SMITHS JUST BLEW
ANOTHER FUSE IN THE
HOUSE YOU DESIGNED
FOR THEM...LET'S LISTEN



Mr. Smith: "I thought blackouts ended with the war, but since Mrs. bought all of these new electrical gadgets for the home it's just one blackout after another every time a fuse blows, which is plenty often. Next time I'll get Square D Multi-Breaker Control—or know why."



Mrs. Smith: "I'm really afraid to change fuses and why should I? We paid enough money for this place to get the best... and that should have included a Square D Multi-Breaker."



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Next Time, Specify

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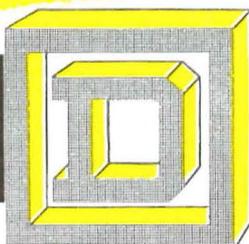
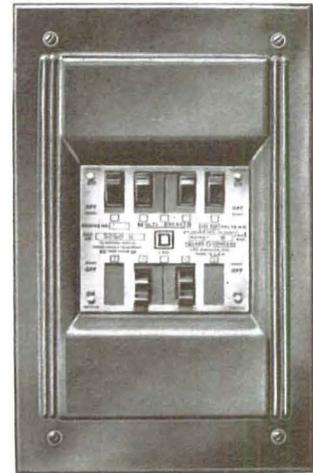
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ART

continued from page 10

adult "thinking" is our children's heritage. Save in a few notable and praiseworthy exceptions, the toys and the games we present the coming generation reveal in all its nakedness the shame that is ours. A toy should aid a child to develop as a human being, it should quicken his powers of imagination, it should help him to become self-reliant, give him pleasure in doing or making, encourage the feeling for *order*. Instead, the child is given boxes of things, assorted objects of wood, felt, paper, plastic, with instruction sheets and diagrams—how to make a house, a boat, a train, a chicken, a man. Coloring sets are accompanied by pictures to be "filled in" or copied—even photographs to be "tinted." Modeling sets come with little molds so that all the child has to do is press the clay in, and out comes a ready-made fish, cow, or commando. Other boxes contain miniature jeeps, tanks, guns, battleships, bombers, for "the soldiers and nurses of the next war." . . .

Christmas, this year particularly, reveals the paucity of our way of life, our lack of art in life, our ignorance of art as a way of making things and doing things. If we have lost the understanding of order, that does not mean it may not be regained. But the ability to know, and the responsibility to impart order comes from within. It is late, but perhaps not too late to start looking for a set of values which will guide us away from the chaos and the vacuity of life centered in the object.—GRACE CLEMENTS.

SAN FRANCISCO

The Annuals of the San Francisco Art Association afford the critical observer the best means of estimating the condition and trend of all that is vital and contemporary in art in this region. True, the Annuals attract participants from other parts of the country but the percentage is hardly large enough to dilute any conclusions that might be drawn. The 65th Annual, and the eleventh to be shown at the San Francisco Museum of Art, is quite important because it reaches an apex both in condition and trend. As to the condition of art here this exhibit presents works of an overall degree of competence that surpasses any of the Annuals yet shown in the San Francisco Museum. It is seldom that a show doesn't have some quite noticeable weak spots in it. This one has none. It touches a high mark in imaginative content, it is notable for the very successful use of color throughout, it is varied and it is well

hung. Obviously, this is one of those fortuitous occasions when all factors combine for the best: exceptionally good work by the artists and first rate work by the juries, both in selection and in awards.

The trend of things to come in art, hereabouts, is indicated clearly by the extent to which the majority of the contributing artists have freed themselves from slavishness to reality. This movement away from reality suggests the use of the word "abstraction." But if this term is to be used as defined by Webster: "Characterized by little or no reference to the appearance of objects in nature," it is inadequate. On the other hand, if the word is allowed to compass everything from the point where the imagination selects certain aspects of nature and emphasizes these elements in such a way as to suggest abstract relations of line, form and color, to the pure abstraction of the dictionary definition, then the general character of the 65th Annual is more accurately described. In this discussion of definitions the identity of well defined schools such as surrealism, cubism, romanticism, and so on, are not challenged. (There are comparatively few followers of these in this Annual.) One thing must be emphasized. This movement toward the abstract is not along any set track or toward any single kind of expression. There seem to be almost as many directions as there are artists. This is a healthy state of affairs, one which assures expansion and growth.

The observed tendency of this Annual may seem to give the impression that abstraction has now become the one important approach to art here. This is hardly so. Art is nothing if it is not varied and inventive. While the general trend of the show is toward abstraction, as herein defined, there are a number of painters who find realism a more satisfactory base to build on. And they use it with imagination—which is to say inventiveness. One of the best pieces of painting in the show, John Langley Howard's *Breakfast Dishes* (tempera), is in this category. The title is suggested by the two hands of the dishwiper which show in the picture. Beyond is the frame of a window out of which can be seen a stretch of water with the city of San Francisco in the distance. This composition was awarded the Artist's Fund Prize for the most distinguished work in any medium. Representative of pure abstraction is James McCray's *Reticulation-Elements of an Aerial Landscape* (oil). Here is a method akin to Mondrian but more flexible and more intricate, one not confined to a vertical and horizontal division of

continued on page 59

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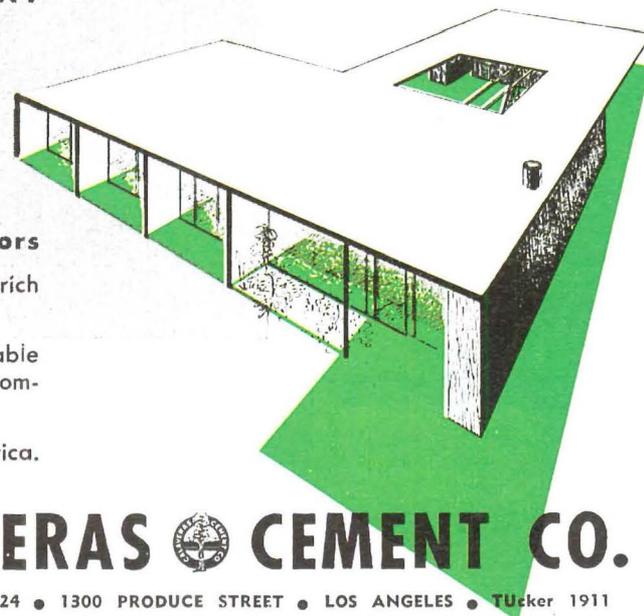
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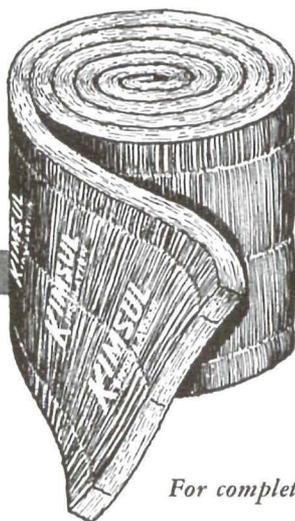


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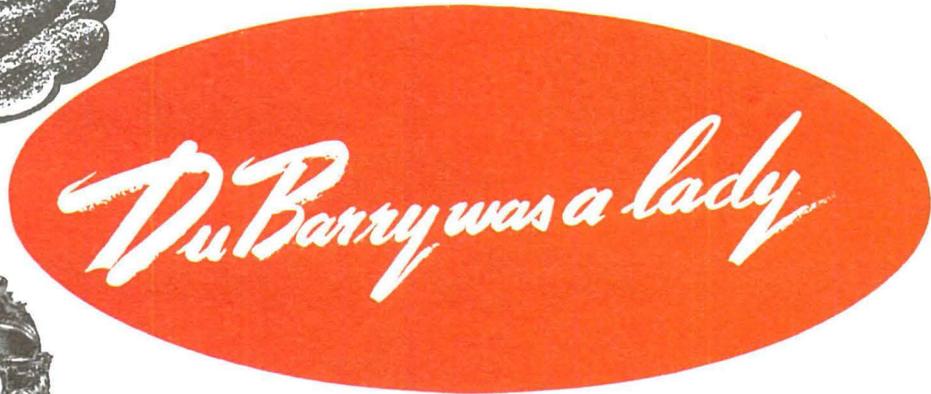
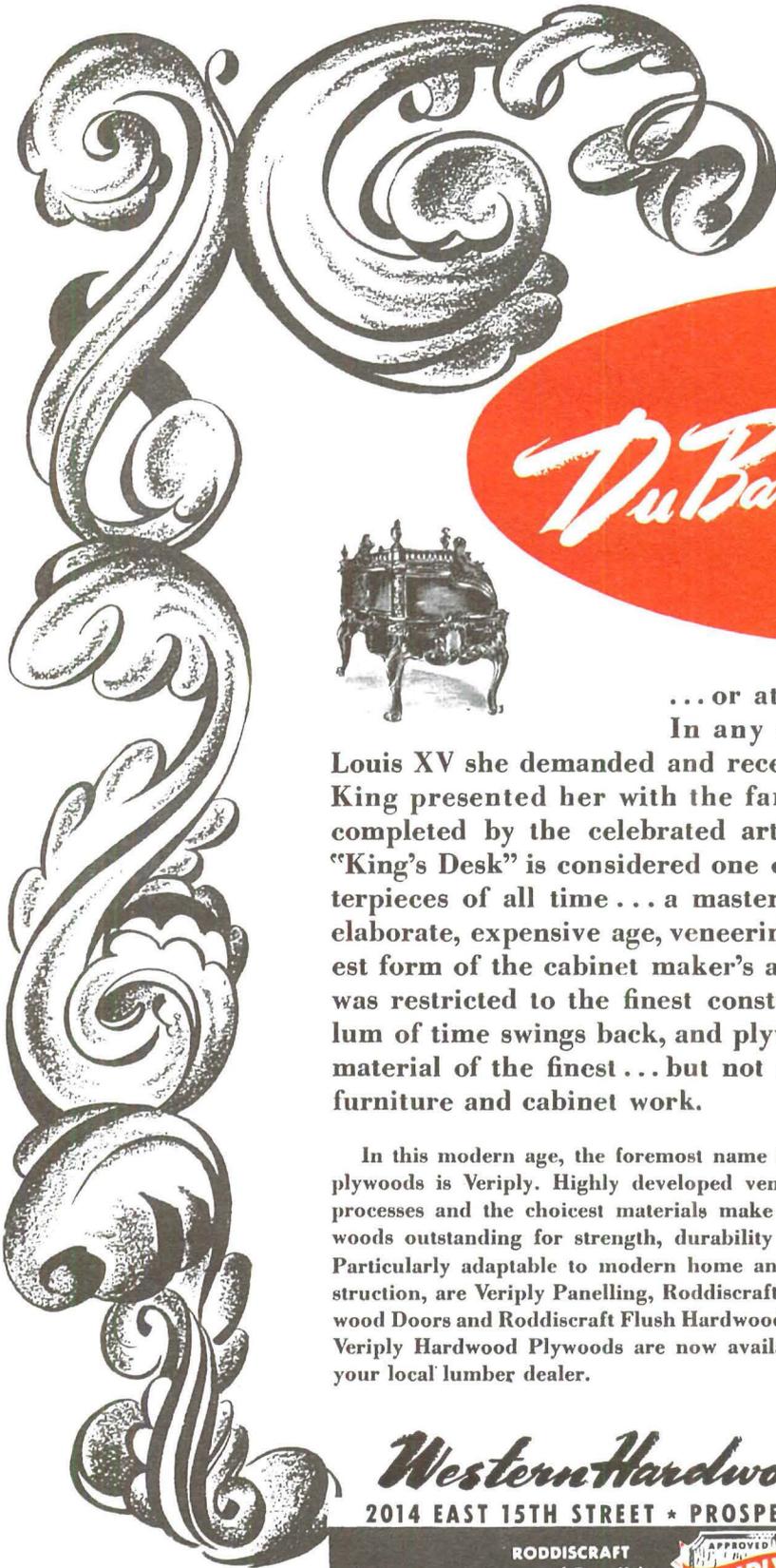
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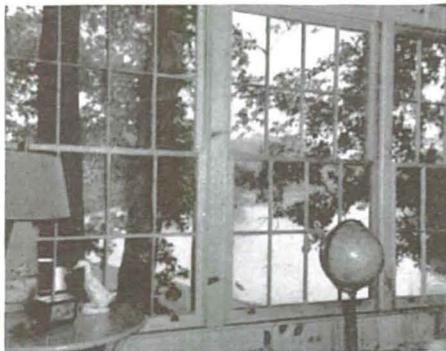
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BOOKS

TOMORROW'S HOUSE—214 pages, including 96 pages of photographs. Simon and Schuster, New York, 1945.—\$3. The underlying thesis of this book is simple and sound: "Tomorrow's House needs no new invention, materials, or techniques for its realization. What is required is a deeper understanding of today's trends, coupled with the most creative and bold use of the techniques already at hand." The authors—George Nelson, consultant editor, and Henry Wright, managing editor of Architectural Forum—capably foster such an understanding.

The highest architectural tradition has always dictated that architects design their buildings for their times and for the living habits of their contemporaries. Following this practice the historical examples of outstanding architecture were modern at the time of their design and construction. For this reason the authors inform their readers that they favor modern houses, not because they are modern but because they are traditional. If this viewpoint seems strange and unpalatable to a reader, then as the authors warn, this book is not for him.

Throughout the authors are guided by their announced purpose of not dictating a new gospel of house planning, but of merely exploring some of the myriad possibilities of contemporary living habits and industrial techniques for making houses better and more attractive. Toward that improvement they analyze the functions of the house—living, eating, bathing, sleeping—allot adequate space, and treat the equipment required for their full attainment. The factors of sound and air control, natural and artificial lighting and heating, laundry and storage are considered. These elements are correlated and assembled to form a house. Then the problems of site and financing are studied. This unusual order of subjects is typical of the book's fresh approach.

The many difficulties of getting a modern house designed and built are frankly disclosed. Among the obstacles are the run-of-the-mill architect; the old-line builders who squawk and jack up the price



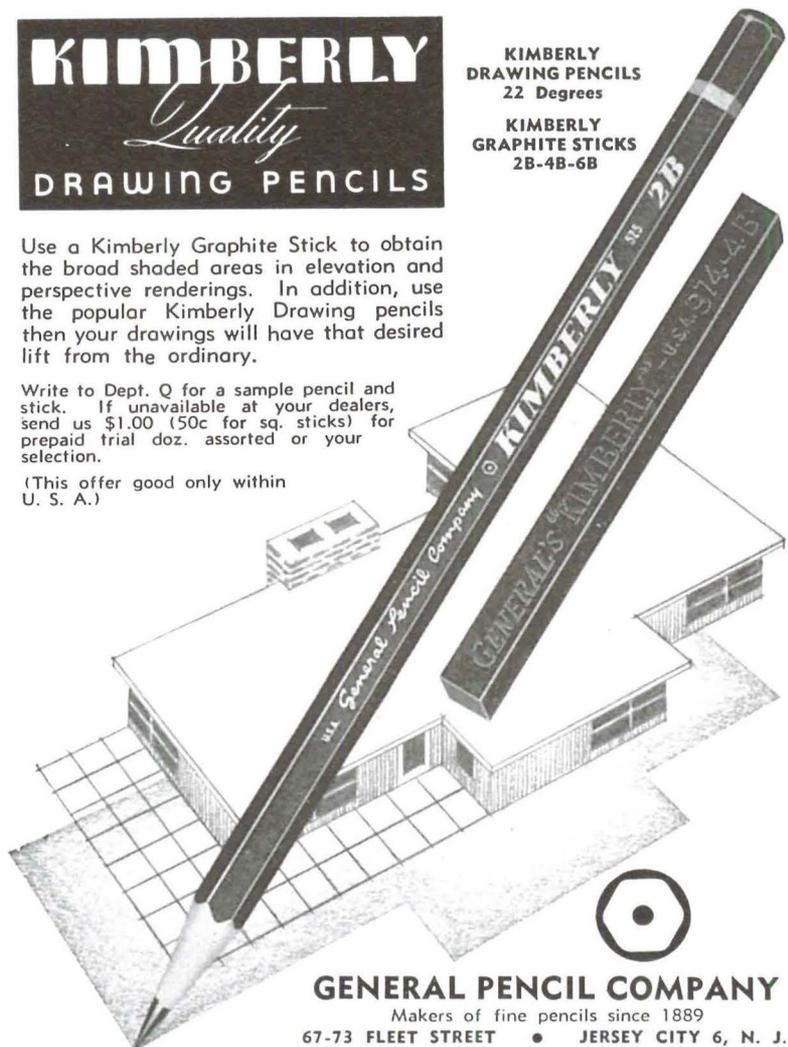
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at the sight of anything new; the banker who is frequently shocked at the newfangled ideas which people are getting about their houses; the FHA representative who is unable to make a proper decision on this difficult subject. These persons need the enlightenment possible from this work but they probably will not read it. The talk about the coming miraculous improvements in residential design and equipment is deflated and a conservative forecast of things reasonably to be expected is substituted. The more immediate need for the full use of materials and techniques already available is properly stressed. "Almost all of our houses, even the new ones, are ten to fifty years behind what they could be."

Surveys made by several agencies show the very sad situation of American house design. Less than five percent of the new houses will be of modern design. How fuzzy and vague are general esthetic thought and taste is thus plainly indicated. What a large group to educate! The authors have made an important contribution to this task.

The text is supplemented and enriched by ninety-six pages of photographs of fine American modern house design. Identifying the work of individual architects and photographers is laborious because of the awkward arrangement of the index. The names should also appear directly under the photographs.—LAWRENCE E. MAWN, A.I.A.

PAINTING AND PAINTERS by Lionello Venturi—250 pages. New York: Charles Scribner's Sons, 1945. The author's announced purpose is to offer an approach to more than fifty paintings of artists from the thirteenth century to the present, from Giotto to Chagall, to serve as a "primer of culture in painting." His training and experience have enabled him to accomplish this purpose with distinction. A refreshing simplicity and directness of expression give this book clarity, readability, and interest.

A number of the artists—Meissonier, Puvis de Chavannes, Bouguereau, Millet—are included only "as a means of negative interest . . . in order that the reader's critical experience might be enriched thereby." Among others, Michelangelo, Titian, El Greco, Rembrandt, Goya, Monet, Toulouse-Lautrec, Van Gogh, Cezanne, Rouault, Braque, Matisse, Pissaro, Marin, are discussed. They are

continued on page 60



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MUSIC

In technique, adequacy is the one criterion. Beyond adequacy the function must be its own criterion. Nowadays any major symphony is adequate to its function of recreating in sound the music written for the symphonic instrument. The question arises whether or not this adequacy of function can actually be altered or improved in any important or perceptible manner by the nature of the person who appears in front of the orchestra and waves a stick. Indeed the question has become subconsciously so serious that several conductors have tried to overcome the difficulty by an appearance of shaping the invisible music with their hands. "When Toscanini conducts," the question runs, "what actually happens to make the music different than it would be if X or Y, being professionally competent persons, had kept time in his place?"

The answer involves a technical achievement of our time as miraculous and self-sufficing as the building of the pyramids. The forces and material are gathered; the overseer cracks his whip.*

Any civilization that wanted to could build pyramids. More than one civilization has accumulated multi-instrumental means. Time had to wait until the collective efforts of a number of competent musical technicians could be transfigured by the appearance before it of a single man with a stick. Until the early nineteenth century the conductor was a performing instrumentalist, or he was a kind of percussionist who kept time by tapping a rod. Group music was in general synchronized by certain fixed elements within the musical means; beyond these fixed means the music was swung in relative freedom and independence. Such music-making survives today in the jam session, the unrehearsed freedom in special circumstances of hot jazz. A relative independence also continued to be observed in chamber music played by as many as eight more or less equally equipped individuals.

Music made the need for the conductor; the need began with the composition of large symphonies. With the symphonies of Mozart and Haydn, and notably with the Beethoven symphonies, the concerted effort became at once too large and too subtle to be comprehended by the uncoordinated joint efforts of many individuals. The first formal conductors of this music, Spohr, Mendelssohn, and Berlioz, were also composers, but after them soon appeared professional conductors, who lived to conduct. Even then, towards the end of the century, the greater conductors continued to be the individually creative musicians, Wagner, Von Buelow, Mahler, Strauss. Wagner, the genius, Von Buelow, the romantic scholar and fanatical drill-master, created the pattern of the modern orchestral performance. With Mahler the conflict between composer and supervising executant reached its tormenting climax, paralleling the drama of the great composer-pianists. These men lived to create music; they labored to perform other music. Their own music was no longer fully accepted, regardless of its quality, because they themselves performed it. The composer withdrew from the field of routine performance, leaving it free to be used by a new class of genius, singly and almost supernaturally dedicated to executive perfection.

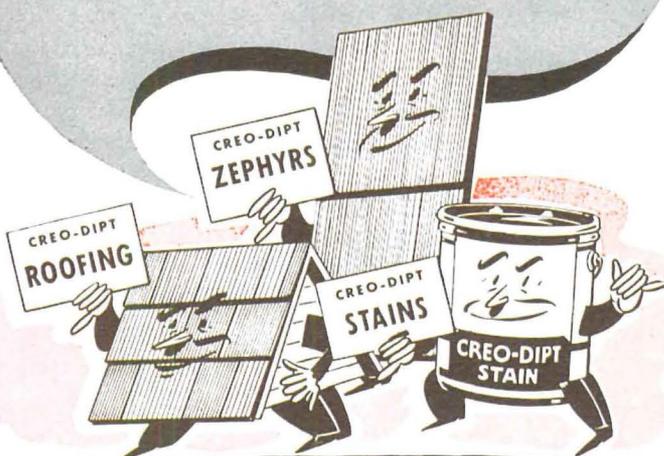
That generation of genius is nearly ended. Weingartner is gone with Nikisch and with Muck; only Toscanini remains. Say what you will of Stokowski, Koussevitzky, Beecham, even Walter: they are lesser men. A difference of only a few years has made the

continued on page 28



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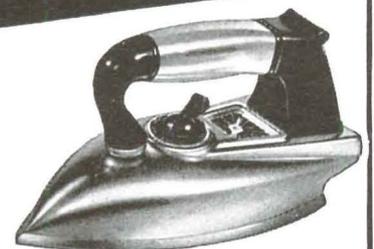
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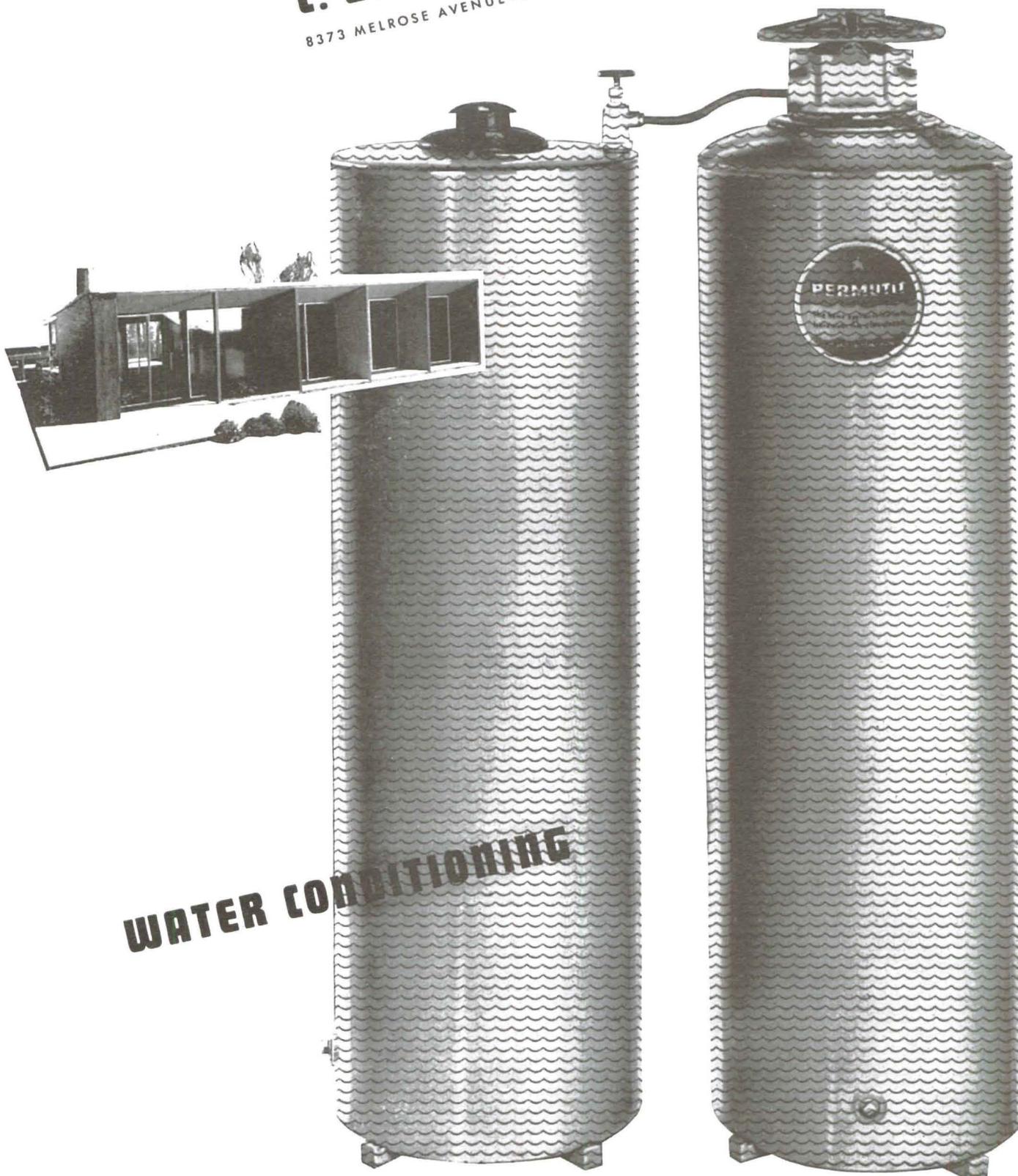
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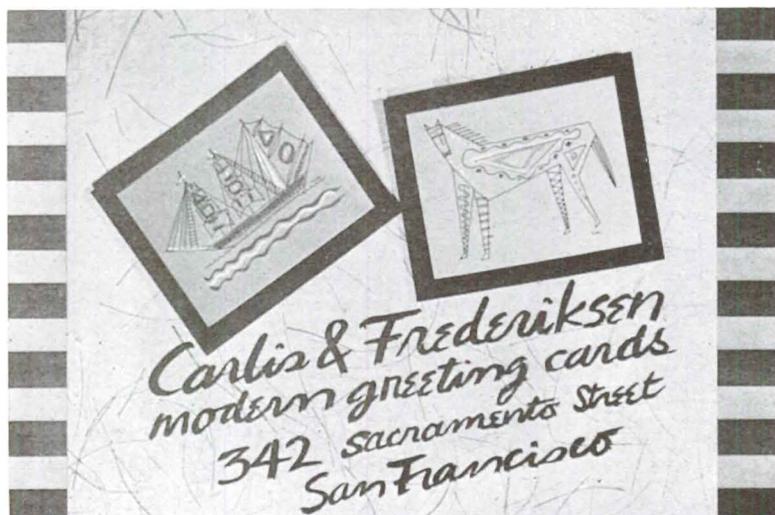
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MUSIC

IN THE CINEMA

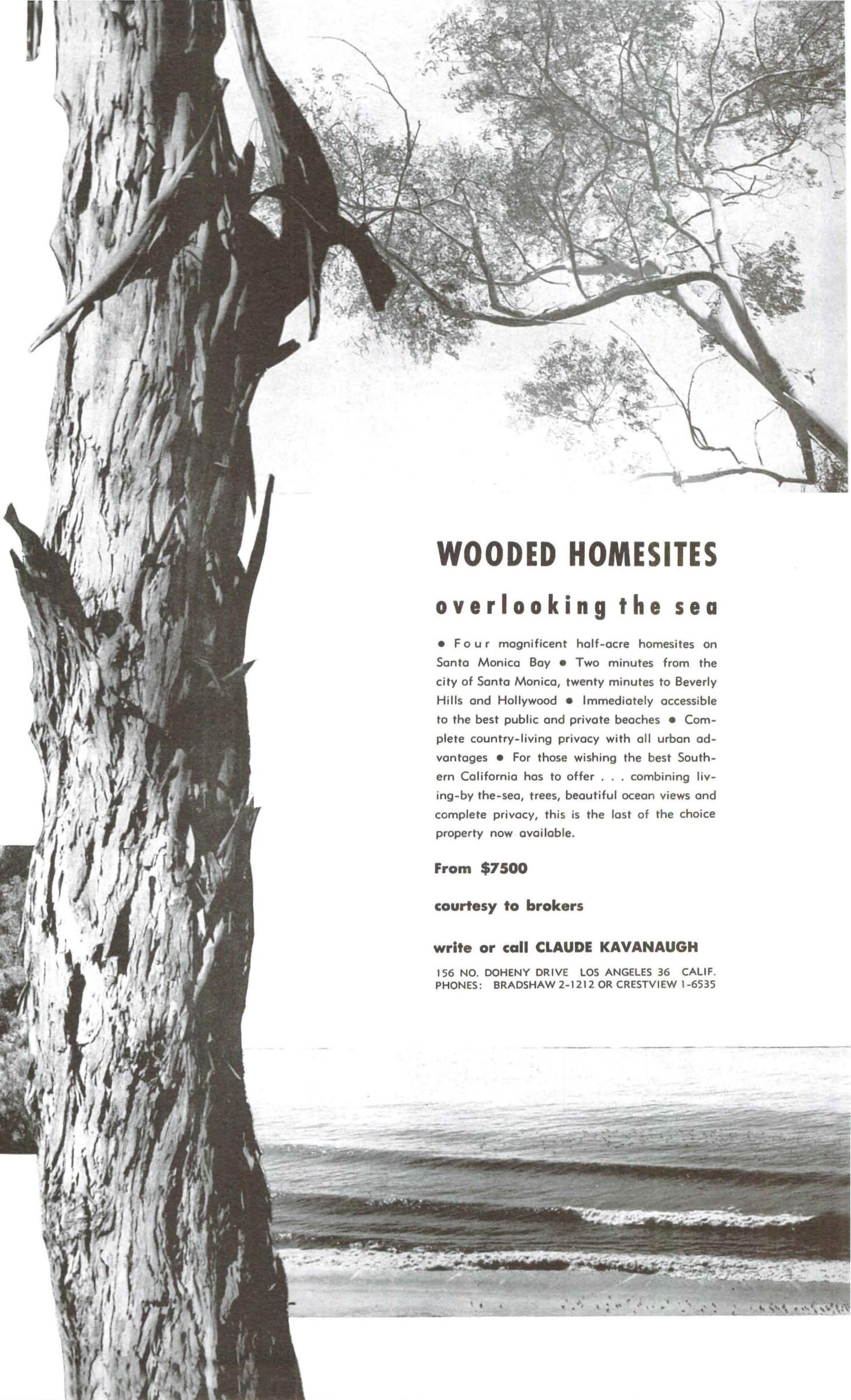
He who examines a cross-section of even the more pretentious of current films will discover that excellence in dramatic content is rarely matched by first-class music, that integrity of style in artistic and musical matters means little to some producers and directors, and clichés are still the stock-in-trade of certain cinema composers. Only a small percentage of the better contemporary motion pictures are balanced productions, containing music that is completely appropriate to the film in content and timing, or, at the very least, is not inconsistent with its atmosphere and period. The others, multi-million dollar ventures all of them, may have merit as dramas or spectacles, but are handicapped because someone—producer, director, or composer—lacks musical taste and education. Perhaps some old hand at the game, who knew the bosses back in vaudeville days and possesses an iron-clad contract, is chosen to write the score while a dozen genuine talents the country over sit on their hands; or perhaps there are too many fingers in the pie. One of the chief reasons for eclecticism in cinema scores is the division of labor among various staff composers. With the efficiency of an assembly line at Willow Run, specialists in boogie-woogie, or South-American dance music, or the “classical” idiom, or something that sounds vaguely modern, all add their sauce to the same dish. Strangely enough, a score that resembles a scrap-book will pass inspection in a film whose backgrounds and decor are beautifully consistent. One is reminded of the fate of the Stoddard Temple in *The Fountainhead*. Greek, Renaissance, and Baroque elements were grafted upon a structure that originally possessed integrity and contemporaneity. But the aforementioned type of movie score does not even have a sound base; it is all patchwork.

This is exemplified in the recent extravaganza, *Yolanda and the Thief* (M.G.M.), whose chief claim to fame rests on its imaginative dance sequences, colorful settings and costumes, not on the forced dialogue or sterile plot. Corn grows so high in the opening scenes that the choreographic originality comes as a distinct and welcome surprise. The film’s artistic highpoint is a dream sequence in which Fred Astaire, Lucille Bremer, and a corps de ballet dance against a surrealistic background inspired by Dali, and in which occur some excitingly beautiful moments (such as the moonlit showers of tinkling coins), when dance, atmosphere, settings, and music are all in tune. But even this one dance episode, a potential masterpiece, is marred by too many cooks with divergent tastes. Astaire expresses the basic mood of the settings with the pantomime of modern ballet, but breaks it by sandwiching in a few tap routines; and into the impressionistic background music that would have been an appropriate concomitant of such decor, the director and his assembly-line of composers have mixed North American jazz and rumbas, the net result being a potpourri.

Less inconsistency but more clichés emerge from the sound track of a sensitively wrought and realistically portrayed film, *Our Vines Have Tender Grapes* (M.G.M.). The drama and excitement of every-day life in a mid-western rural community, with Edward G. Robinson as a Norwegian-American farmer and Margaret O’Brien as his daughter, provide the subject matter of the picture. Much of Bronislau Kaper’s musical background is in a pastoral, almost classical mood, which is quite appropriate, although one wonders whether the Norwegian folk-idiom might not have been better suited to a film all of whose characters boast a Scandinavian background. Be that as it may, the total impression of Kaper’s fluent neo-classicism is spoiled by his inability to write homogeneously, and by his reliance upon the cliché of borrowed melodies. Stephen Foster’s *Beautiful Dreamer* and a modern, sentimental ballad, reminiscent of David Raksin’s *Laura*, suddenly pop up in the midst of his score as background for a romantic scene, and *Jingle Bells* rings out at the first sign of snow. How long must we wait before film composers adopt a philosophy of—“I don’t know whether it’s great, but it’s all mine, and all of one piece”?

The cinema version of *A Bell for Adano* (Twentieth Century-Fox) is a sincere and moving picture of the American Occupation in Italy, with John Hodiak completely convincing as the freedom-loving and tender-hearted Major Joppolo. A consistently skillful musical setting by Alfred Newman contributes much to the overall impression of excellence. Memorable, and deserving of concert performance, is the dissonant, agonizing march for the return of the

continued on page 60



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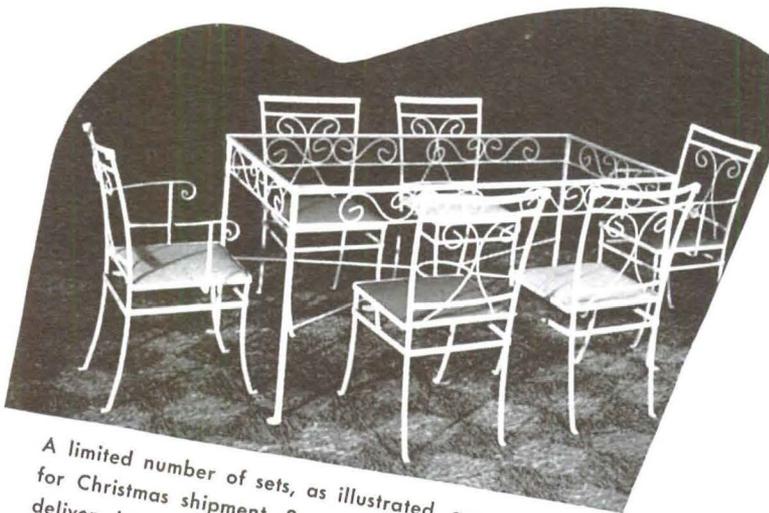
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MUSIC

continued from page 24

conductor a lesser, even at his best, a routine genius. Perfectionist though he may be, he is no longer supernatural: his best work has been anticipated.

Toscanini remains to recreate for us a few more times the first still evidently supernatural outbursting of experience. Such men as he made the great orchestras; such men adapted to these orchestras the wealth of a full century of music made for the symphonic means. It is hard to believe that the majority of the greatest symphonies had been written before the coming of these men. And with the passing of these first conductors of genius music enters upon a new course; it returns to the spontaneous musicianship of soloists, artists trained now with a new powerful cooperative technique, to make music jointly in their cooperative art as soloists. The symphony will remain; like opera it will grow more and more routine; only in occasional moments will conductors rediscover with the freshness of new genius the first experience of the wealth of symphonic music fully played. Music written for the symphony has become imitative, in the same way that the work of the conductor is now necessarily imitative. The correct has very nearly become the obvious; the brilliant, the extraordinary are only to be expected: individuality weary of correctness begins to express itself by distortion.

It was otherwise in those days when Brahms yielded to the authority of Nikisch; Weingartner laid down the rules of orchestral playing; Muck comprehended Wagner as his own experience; Toscanini broke open for opera and then for symphony the possibilities of virtuoso performance. Only the last is left, tired and now often like his fellow autocrats routine. But those of us who through the opportunity of radio first came regularly to the experience of symphonic music will remember the greatness of his genius, how he transcended at his best all others who would sound like him, how he still rises to those old heights, when the occasion, and the occasion now more often than the music, lends his old genius youthful wings. Such an occasion came on the night of the Japanese surrender, when after MacArthur and President Truman had spoken Toscanini conducted the NBC orchestra in what appeared to be a nearly spontaneous performance of the Beethoven *Eroica Symphony*. To describe such a performance by superlatives is meaningless. One can only with tears in one's eyes attempt to shatter the inevitable silence.

We do not know fully how it is that the conductor produces his unique result, why the performance of the same music under each great conductor is a unique experience. Part is preparation, part drill, part orchestral routine. The symphony as a personal medium is not likely to be improved; it can only go backward. Art will not cease evolving. A conductor of the sort of Toscanini is not to be expected to appear again. We look forward to what Lewis Mumford would call neotechnic music. That music is already being written, and musicians now must learn to play it.—PETER YATES.

*"The baroque orchestra had been built up on the sonority and volume of stringed instruments. Meanwhile mechanical invention had added enormously to the range of sound and the qualities of tone that could be produced. . . All the instruments were now scientifically calibrated: the production of sound became, within limits, standardized and predictable. And with the increase of the number of instruments, the division of labor within the orchestra corresponded to that of the factory. . . The leader was the superintendent and production manager, in charge of the manufacture and assembly of the product, namely, the piece of music, while the composer corresponded to the inventor, engineer, and designer, who had to calculate on paper, with the aid of such minor instruments as the piano, the nature of the ultimate product—working out its last detail before a single step was made in the factory. . . In the orchestra the collective efficiency, the collective harmony, the functional division of labor, the loyal cooperative interplay between the leaders and the led, produced a collective unison greater than that which was achieved, in all probability, within any single factory. For one thing, the rhythm was more subtle; and the timing of the successive operations was perfected in the symphony orchestra long before anything like the same efficient routine came about in the factory." Thus Lewis Mumford in his great book *Technics and Civilization* characterizes the symphony orchestra as the ideal pattern of paleotechnic society, the era of the machine, that civilization which begins with mining and crude labor-saving devices and which reaches its highest efficiency in the railroad and centrally controlled, exactly timed mechanical routine.



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notes

I N P A S S I N G

FOR SOME REASON NOT entirely related to good sense, we evidently feel that we can be defended only by the creation of diplomatic, political, and economic booby-traps. Merrily and industriously we dig elephant pits all around the world, blithely unaware that the only things which eventually will fall into them will be lumps of our own carcasses. Unfortunately, we are never willing to consider the desirability of a progressive, fluid state of world politics in which adjustments on an international basis can be made to fit, rationally and honestly, the needs of people subject to the physical nature of the earth upon which they live.

We must instead complicate our existence with rules and patterns, with islands of privilege and poverty, maintaining them steadfastly, and stubbornly up to and including the insanity of war, blithely convinced that any system of checks and balances based upon our own invention must of necessity represent the good life for everybody.

Even snakes find it necessary to shed their skins occasionally, but some dismal fate hounds us to do what we do with the deepest conviction that we are always good and right, and that anyone who objects is a double confounded, confused, ignorant stinker and no-good-nik.

There is neither time nor space to point out the obvious forces that are responsible for the thinking behind the recent performances on our many diplomatic fronts. It is, however, perhaps a good thing that the position is now so nakedly exposed and that the intrigues and counter-intrigues, the pressures and the tensions, the tightening of the screws a little here, the release of a safety valve there, shows itself to be nothing but a frantic effort to maintain what can well be the real death of mankind—the status quo. We advance rapidly toward a last catastrophe, loudly insisting that our time, against all logic in nature, must remain a fixed point in space—immovable and unchangeable—from which it is neither right nor moral to retreat or advance.

It is tragic that internationalism has been so discredited and transformed by misapplication of its meanings into what, for purely political purposes, looks rather like a form of arbitrary world domination. Evidently we cannot convince ourselves that it should and could be a form of world cooperation between peoples dealing primarily with material needs based upon the physical characteristics of the earth upon which we live.

Whether the Mr. McCormacks choose to make fun of the Mr. Wallaces' quart of milk or not—that quart of milk, or its equivalent, in common human decency must become a part of our obligation to our fellow inhabitants of the globe or we will be committed inevitably to the final end of all blindness and stupidity—chaos.

Too many of us still insist that whatever we do is valid and just merely because we do it, and that no sacrifice at the expense of underprivileged people is too great in order that our own standards be maintained. That greedy self-sufficiency that conditions our politics and that poisons our lives and that refuses to look one minute beyond the immediate life span, can be interpreted, certainly, at this point as the first small whisper of the crack of doom.

Only this time we are not "magicked" by the sound of words or the tiny dancing feet of angels on philosophical pin-heads—we are faced by hard facts of science—undeniable, irrevocable, and completely impersonal.

There's too much corroborative evidence to deny the direction of thinking that leads us into conflict, and there can be no real end to it until we accept the world as a cooperative enterprise, in which measures and balances will be adjusted and controlled by a congress of all peoples in order to create a standard of living that will meet honestly the definition of what we now so piously, so fraudulently, and so hypocritically call "human."

And here again we have a Christmas, the spirit of which is evidently too noble for us to live up to—the substance of which we spend most of our lives denying. 1945 . . . and still it seems we remain committed to the soft voice and the big stick. Perhaps some day there will be an end to it and we can approach the celebration of the *Day of Good Will* without the uneasiness and sense of guilt that turns Christmas itself into shopkeeper's holiday, and not the time of surprise and love and pleasantness that is its real and its best intention.

report

on creative life in Berlin

by Robert Joseph

■ Berlin's creative life—theater, music, art, radio, ballet—is undergoing a great period of renaissance. There is a hurried, frenzied activity in this four-quartered city which suggests an interesting comparison with the Florence or Venice of the Italian Renaissance, with squalor and creative forces side by side. And all the concomitant phases of renaissance are here; great exertions, major and minor accomplishments; pain and sorrow; and at times a brilliant ray of hope which emerges from something German. From the writer's point of view much of this Renaissance is real; much more of it is pumped in, hypodermic fashion, by all of the four occupying Allies in this capital city of the former Reich. Whatever one may say in judgment of this new spirit—phoney, real, overwhelming, encouraging—it is bizarre and interesting to see a city revive culturally amidst terrible hunger and cold, shattered lives and shattered buildings. It should never be forgotten that here in these early winter days of 1945 with no coal, little food, no glass for windows and no heat for theaters or stages, no makeup and paints, no building materials, and a discouraging lack of men and women whom one can trust and work with—it should never be forgotten that this suffering is real.

In the field of the theater Berliners are already encouragingly rejecting bad stage plays and patronizing good ones. Since no theater in Berlin has any heating—and it snowed yesterday—one should not assume that people go into theaters to keep warm. Subways stop running at nine which means that performances start around 5 to 5:30. It is not an uncommon sight to see Berliners eating their entr'acte dinners of black bread and something smeared on it, (if they're lucky enough to have anything edible to spread on their bread), during performances of Curt Goetz' *Hocus Pocus* or Shakespeare's *Macbeth*. This week the first American plays are being shown including O'Neill's *Anna Christie* and Robert Ardrey's *Thunder Rock*, productions of which were fair and excellent respectively. Outstanding presentations in Berlin include the performance of *Nathan the Wise* at what was the former Max Reinhardt Theater and Bert Brecht and Kurt Weill's *Dreigroschenoper*, both of which are excellent. Two of Berlin's leading stage producers are Jurgen Fehling and Karl Heinz Martin, both of whom were given the first stage producing licenses in Berlin this week. Fehling is offering an adequate presentation of *UrFaust*, the first version of what was later to become Goethe's great masterwork. In addition to these better-than-average stage productions are the usual little theater performances which are springing up and dying out all over the city in halls and vestibules of bombed out buildings.

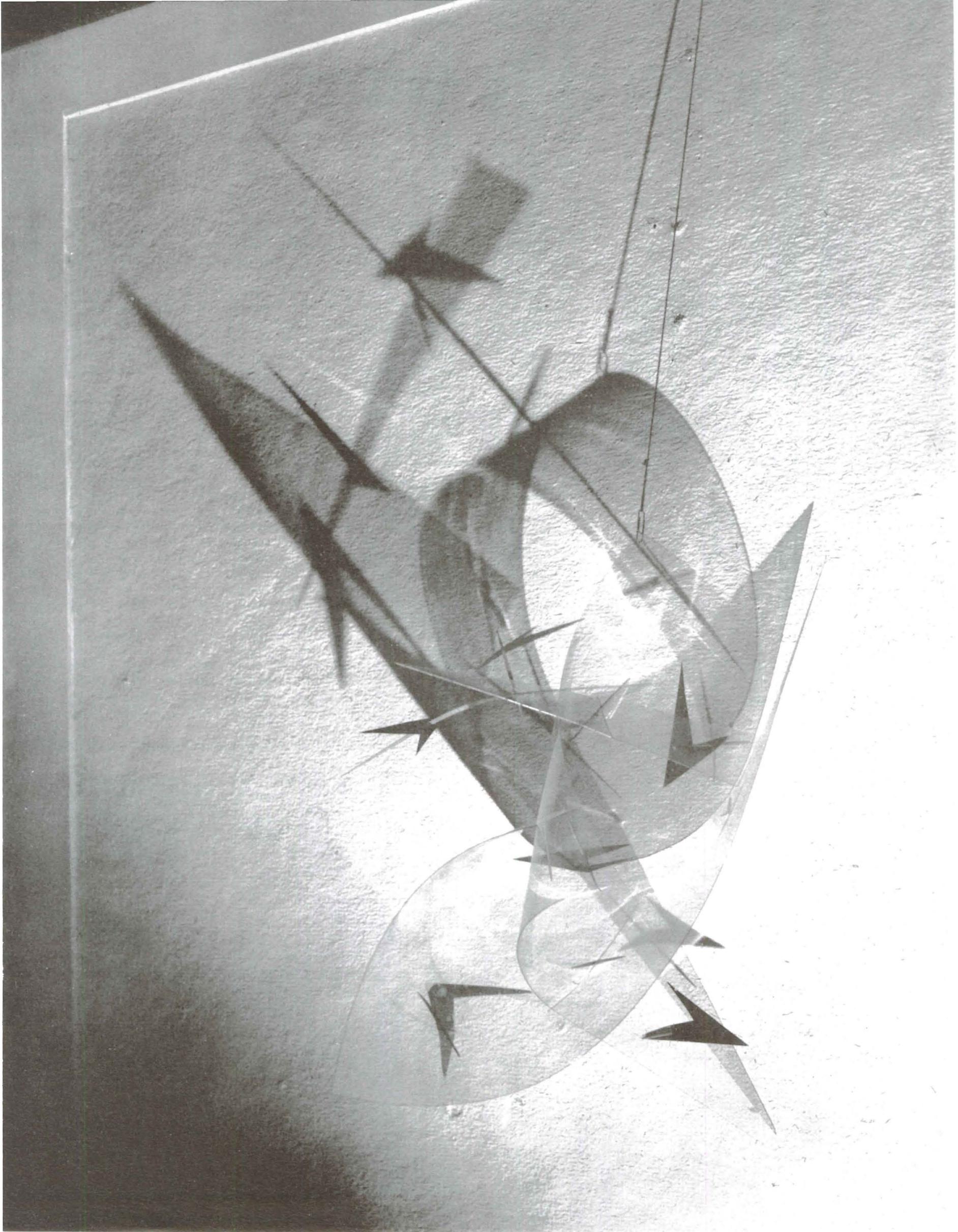
"The quality of music now being played in Berlin," states Captain Bitter, Music Officer for Berlin, and himself a young conductor who is sacrificing his career at this time to act as Music Officer in Information Services Control Section for the United States Sector of Berlin, "is amazingly high. One must remember present conditions to evaluate with any accuracy what is going on: the cold, the lack of food, shortage of scores, and the shortage in manpower." As Captain Bitter explains it, the best musical talent

in Berlin left shortly after 1933 when Hitler and Nazism rose to power. What Hitler failed to do in dispersion was accomplished by the advent of war in 1939 and later bombing attacks. Men like Hindemith left the country, as well as Furtwaengler. Of those that remained behind Giesecking and Knapperstbusch, Heger, and lesser lights were Nazi-soaked and have been stricken from current lists of available musical talent. The one great remaining hope, Felix Borchard, was killed last summer, accidentally shot when his chauffeur failed to halt on signal from a military guard. The present conductor of the once great Berlin Philharmonic is a Roumanian, Sergiu Celibidache, whom Bitter characterizes as one of the greatest craftsmen in music he has ever seen.

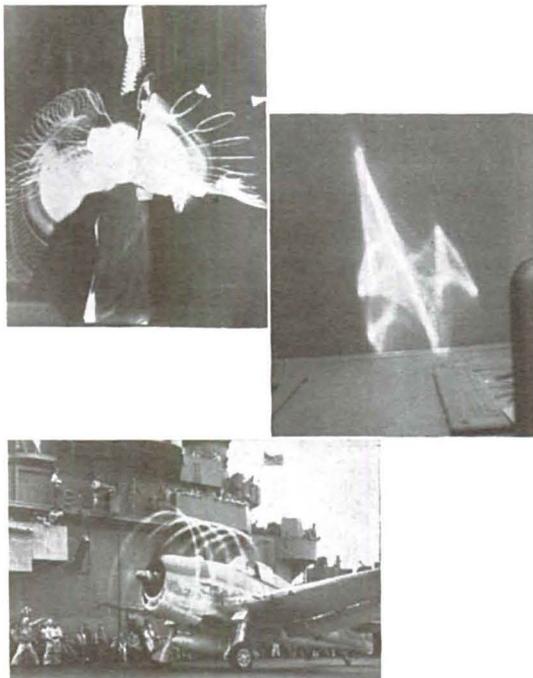
But if Captain Bitter has discovered a successor for the great men who used to lead the Berlin Philharmonic he has not solved all his problems. He recounts a meeting this week with his orchestra during a rehearsal, when it seemed that everything was about to fall to pieces. The rehearsal hall was cold; the men were hungry; a man earning 1000 Marks a month, from which the City subtracted 60 percent if he was a bachelor, had enough left over from taxes to buy a carton of cigarettes on the black market or three or four good meals in a black market restaurant, or enough for two or three pounds of butter or two pounds of coffee. Suddenly, as Captain Bitter addressed his orchestra, the sound of coal, crashing down into the cellar filled the hall. The men smiled and played, as the Captain describes it, as they never did before. "That coal thundering into the cellar," the Music Officer recounts, "was the sweetest music I ever heard."

Equally amazing has been the quality of operas in Berlin. There have been some bad performances, but in general *Rigoletto*, *Pagliacci*, *Eugene Onegin*, which was beautifully staged, were excellent. *Don Pasqual* and *Fidelio* were adequate. When one considers food shortages and the fact that singers need a full stomach for their best work, and that the best voices in Germany were generally members of the Nazi Party, then excellence of opera in Berlin is astounding.

There has been also some minor activity in the field of films. The Russians, who have the best studio facilities in the city, controlling former UFA Studios in Babelsberg and Johanistal, and the British, have already permitted the making of a few documentaries, including *Berlin Rebuilds* for the Russians and *Action Stork* (the removal of Berlin children into the British Zone, seventy or eighty miles from the former German capital into the country for this winter), for the British. There is no feature production program of any kind to speak of at this time, although the Allies all agree that a healthy and intelligent film production is just as much a part of German reconstruction and rehabilitation as the reviving of universities and schools. In no other field have technicians and creative artists been so politically poisoned and perverted as in motion pictures because of Goebbel's control of the medium. It is with the greatest difficulty that one can find even assistant cameramen and lab technicians, as examples, who are polit- (continued on page 60)



an approach to space



■ Man's ideas concerning reality are governed largely by his conception of space or the outside world. Until the 19th century any experience of nature had always been from a relatively fixed point of reference to time and space. Until then no human had travelled faster than a horse could run, and no two persons had ever been able to communicate simultaneously with each other without being in the same fixed place at the same fixed time. But inventions based on the variability of time and space have made it possible to shorten, lengthen or obliterate time. New anesthetics in medicine, the X-ray, infra-red ray, polarized light, or the atomic bomb each varies in a different way the time-space relationship. Automobiles, telephones, movies, airplanes, and television have personalized the relativity of time and space. But man's experiences have increased so rapidly in so short a period that he is still unable to grasp the meaning of these new experiences.

Since art is a reflection of man's mind and of the artist's sensitivity to the rhythm of the world in which he lives, modern art is one of the most trustworthy clues in attempting to understand the revolutionary change in direction of the human spirit in modern times. It differs from the art of the past largely because of the change in approach to space and the accompanying change in rhythm. Cubism considered objects simultaneously from different points of reference—front, back, side, inside, and outside. Time and space are here no more fixed than with the X-ray which reveals simultaneously the inside and outside of objects from the outside. Futurism presented simultaneously various points of reference to time and space involved in motion, an idea recently scientifically applied in multiframe or stroboscopic photo studies of action. Surrealism varies the fixed time-space relationships of objects in normal conscious reality and juxtaposes them in startling and unexpected relationships in a manner characteristic of the subconscious mind in dreams and fantasies. Abstraction holds that the abstract is more variable than the fixed particular or concrete. Basically all phases of modern painting deal in some way with the approach to nature from a dynamic and variable point of reference to time and space.

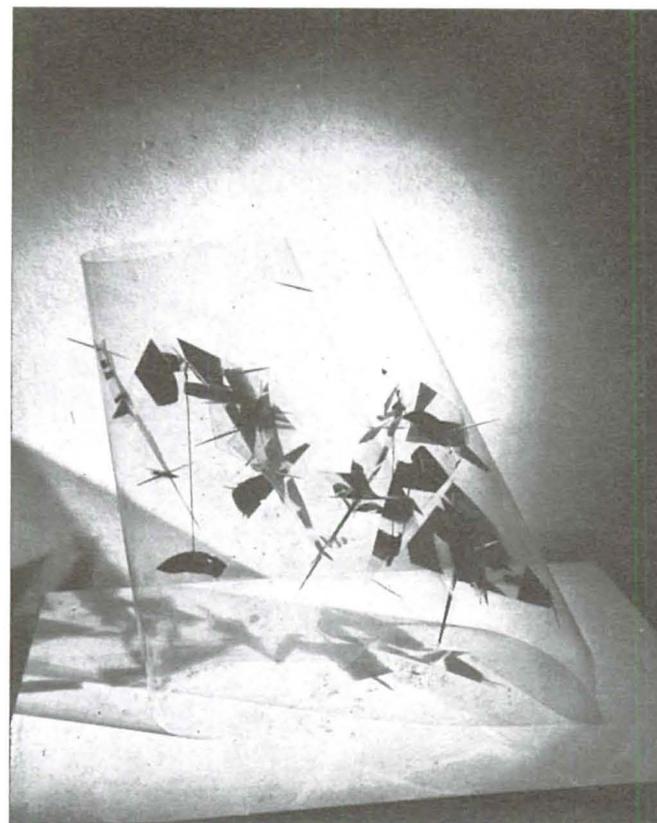
In primitive painting the artist revealed a two-dimensional conception by the representation of objects in nature as flat planes. But over a period of centuries man's mind created the idea of a third dimension, which the eye can never see, in order to deal more effectively with the outside world. This three-dimensional approach is recorded in the painting of more recent times by the representation of three-dimensional spatial effects of solid and void. While oriental painting emphasized the effect of empty or void space, western painting

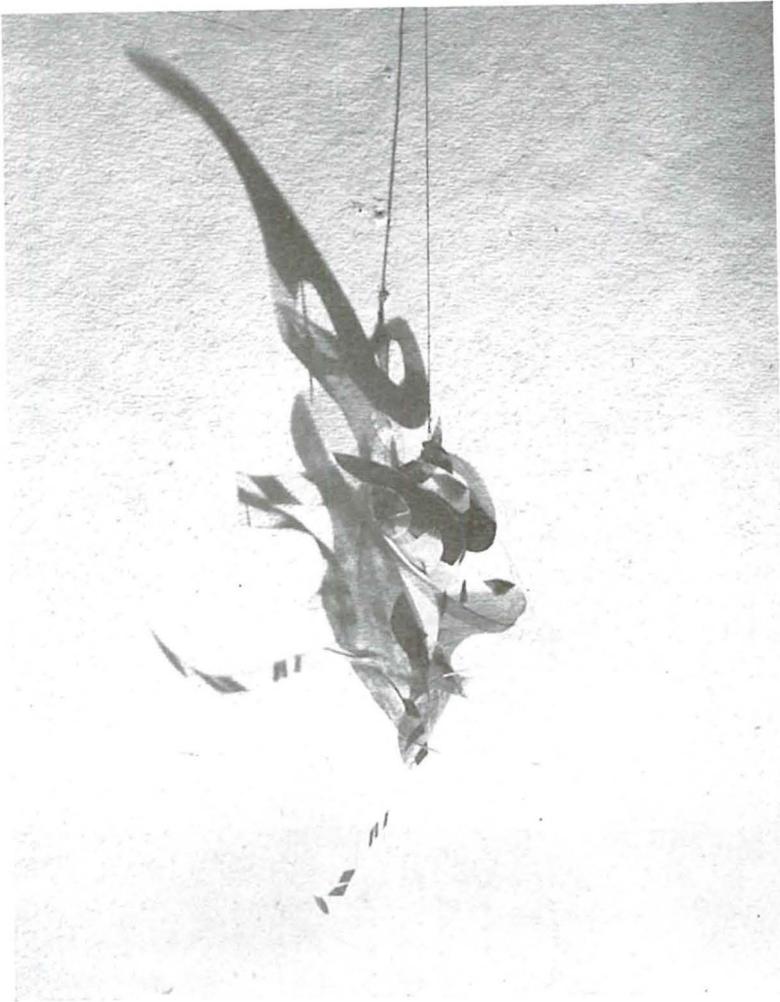
BY BENJAMIN BALDWIN FROM THE NOTES OF

J I M D A V I S

ABOVE: MULTIFLASH PHOTOGRAPH OF A BADMINTON PLAYER IN ACTION; PHOTOGRAPH OF A LIGHT REFLECTION; AURA OF MOISTURE CONDENSED BY THE RAPID MOTION OF THE PROPELLOR OF A GRUMMAN "HELLCAT".

RIGHT: FREE-STANDING TRANSPARENCY. JIM DAVIS 1945





ABOVE LEFT: SUSPENDED TRANSPARENCY PLUS SHADOWS — 1945



ABOVE RIGHT: "PATH OF MOTION" 1943 — OIL ON CELOTEX

RIGHT: "PATH OF MOTION" 1944 — WATER COLOR ON ASBESTOS BOARD



since the 15th century has emphasized the solid aspect of objects in nature, inventing perspective to heighten the illusion of three-dimensional space. According to the law of perspective, everything in nature is considered from a single, static, fixed point of reference, the vanishing point. With Cezanne painting began to break away from this concept, solids, and voids vibrating and moving, flowing into each other to form a more integrated spatial whole, and finally combining the opposite oriental and occidental approaches to space. From this fusion the mind of modern man has gradually developed the idea of a four dimensional conception where time is considered the fourth dimension. Time and space are no longer held as fixed with relation to each other but as variable or relative. The spatial or visual arts all reveal an identical approach to space in any period. Today, architecture, city planning, mobile sculpture, or the design of an airplane reflects the same approach to the problem of space organization as modern painting. Analogous changes are taking place in literature, music, and dancing. Writers frequently consider past, present, and future simultaneously. Modern composers employ the variable polytonal or atonal scale rather than the fixed melodic scale, and dancers of the modern school are developing a new approach (continued on page 61)

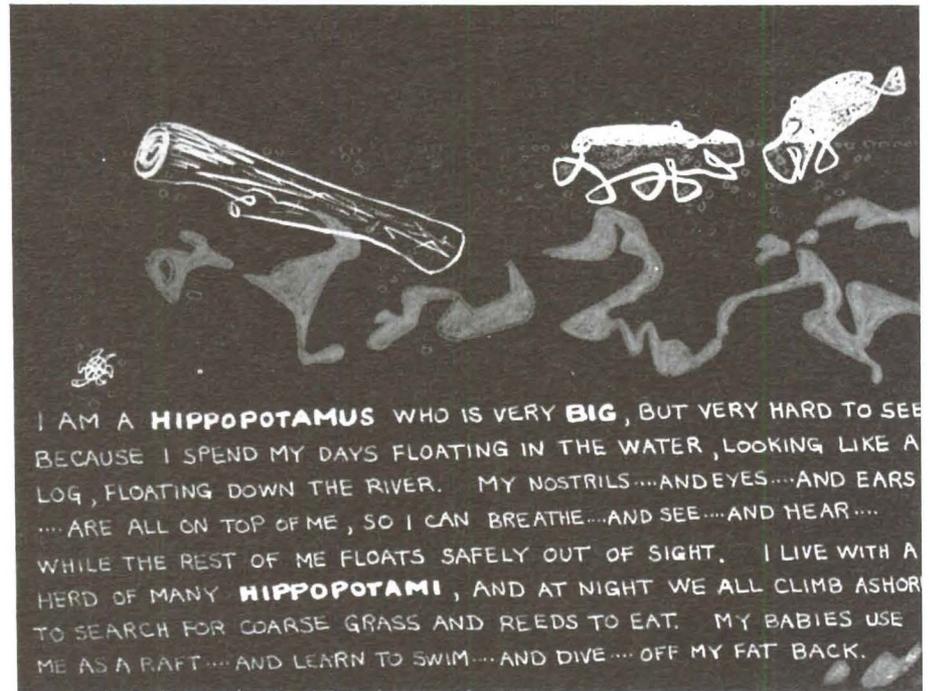
From a children's book

by Lily Saarinen

to be published in the fall of 1946

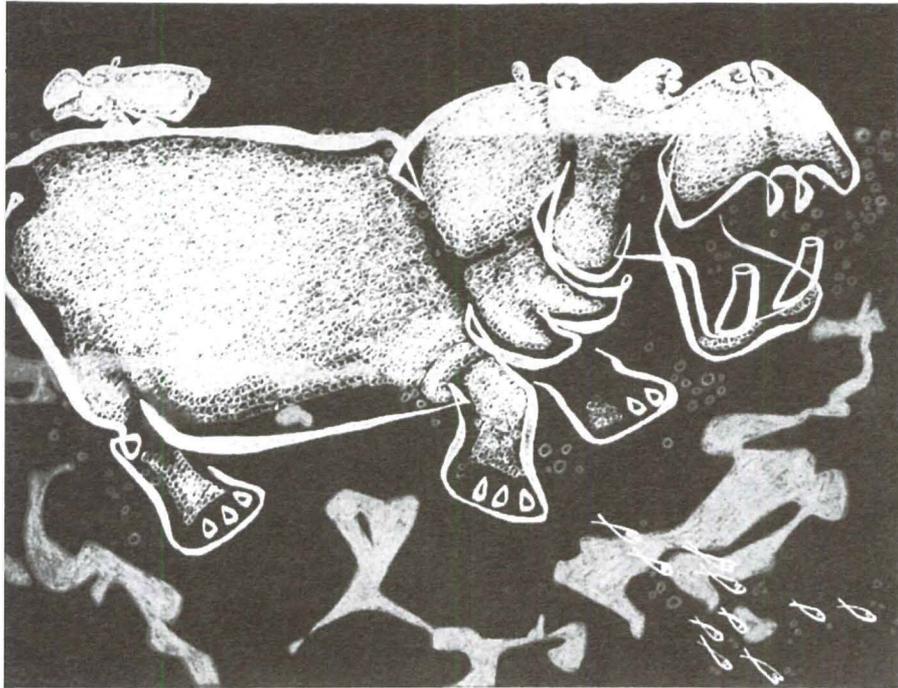
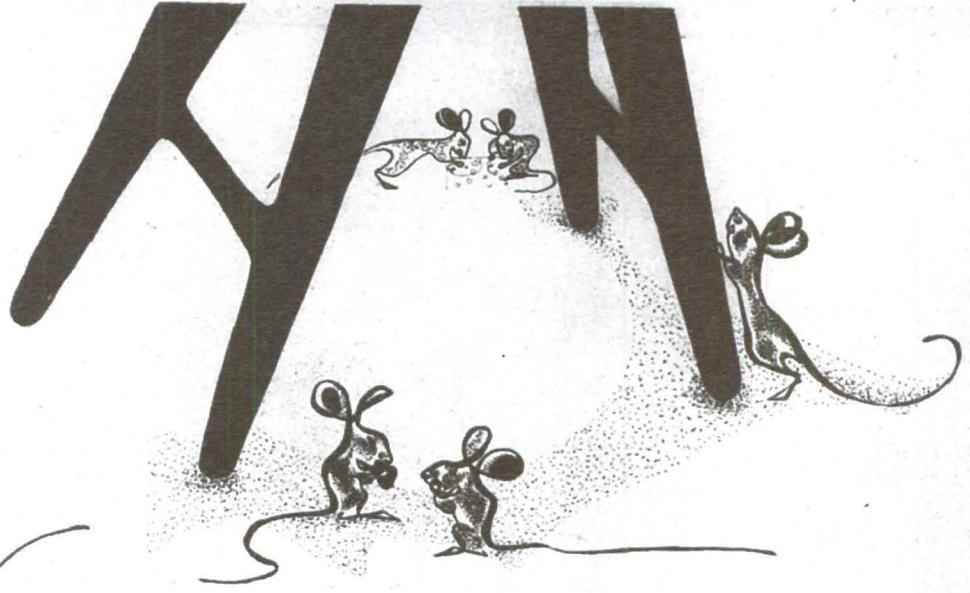
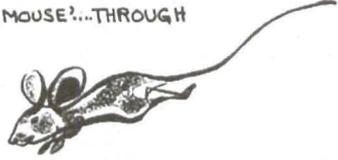
by Reynal and Hitchcock, Inc.

"who am I?" ❄️



"I am a little boy with a big clever forehead to think with.
I can talk and write what I think, and read what other people think.
I only need two legs to run on, so I can move my arms in all directions,
and use my hands for making useful and beautiful things. That is why I look so different
from animals. I am very lucky . . . for with my clever head and hands,
I can someday build a home, bigger and safer than a nest . . . and make a coat warmer
than a polar bear's . . . and I can grow food
in my garden instead of hunting for it. I can invent machines that carry me . . .
faster than a rabbit runs . . . farther than a camel roams . . . higher than a bird flies.
I have something else too, that no animals have . . . something
inside my heart that helps me be a good boy . . . to share
my toys, and to be kind to others.
"Someday I will grow so wise . . . and my heart so big . . .

WE ARE TINY LITTLE **MICE**.....SO **TINY** THAT WE MIGHT BE IN THE SAME ROOM WITH YOU NOW....BUT YOU CANT SEE US; SO **QUICK** THAT WE MIGHT RUN AWAY BETWEEN YOUR FEET BEFORE YOU KNOW IT. WE ARE GREY.....LIKE DUSTY CORNERS AND DIRTY FOOTSTEPS AND FURNITURE SHADOWS. WE FEEL VERY MUCH AT HOME IN YOUR HOUSE IF IT IS OLD, AND FULL OF DUST TO HIDE IN.....AND FULL OF CRUMBS TO EAT.... AND FULL OF DARK CRACKS AND HOLES TO LIVE IN. THE BIGGEST THINGS WE HAVE ARE.....EARS.....TO HEAR YOU WITH; THE STRONGEST THINGS WE HAVE ARE.....^{LEGS}.....TO JUMP UP AND DOWN CHAIRS AND TABLES WITH; THE LONGEST THINGS WE HAVE ARE.....TAILS.....TO KEEP OUR BALANCE WITH, WHEN WE RUN AND JUMP, AND SIT UP ON OUR HINDLEGS. THE ONLY POINTED THINGS WE HAVE ARE.....NOSES.....TO SNIFF INTO TINY CORNERS, AND HELP US SLIP ^{AS QUICK AS A MOUSE?}.....THROUGH THE DARK CRACKS IN YOUR OLD HOUSE.



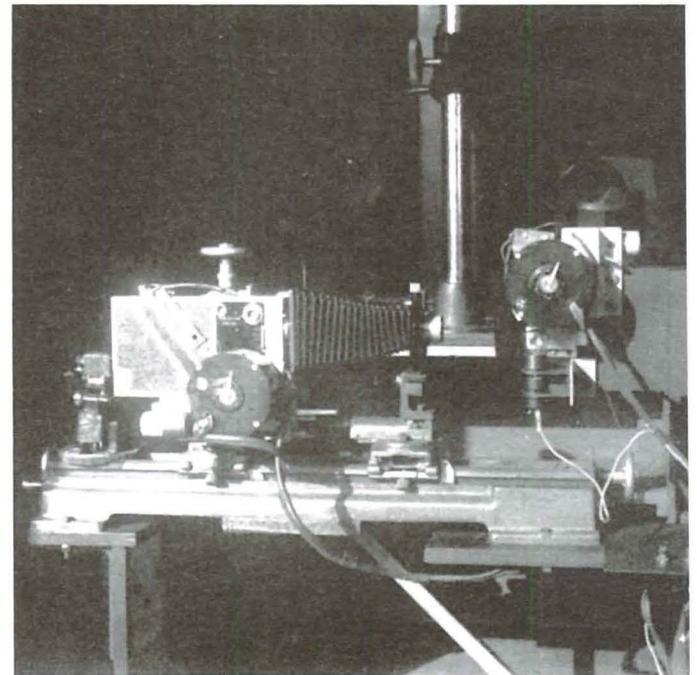
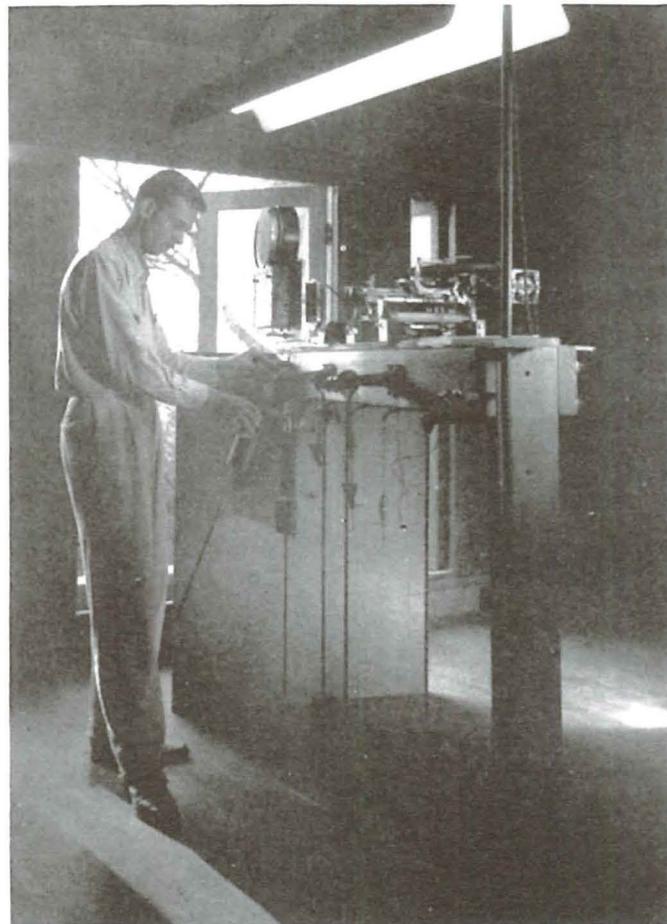
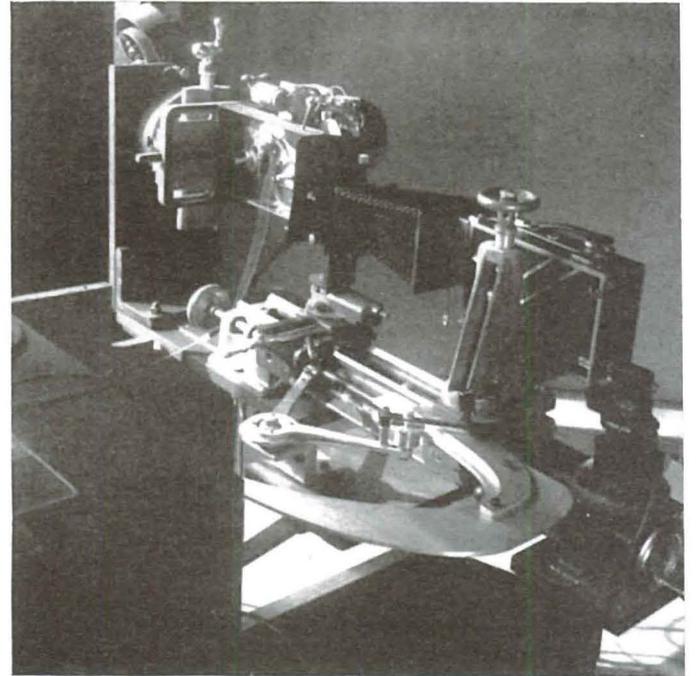
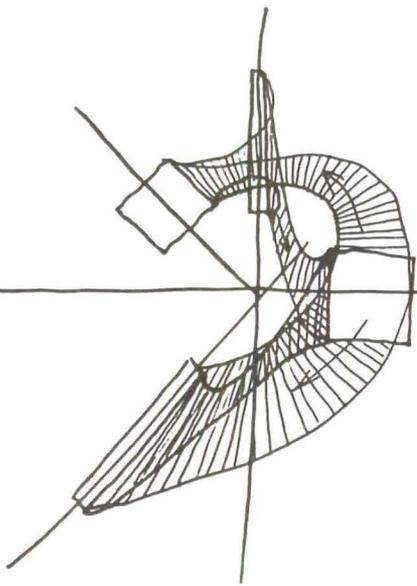
that I can think out a way for everyone to share each other's happiness . . . to have good food to eat, and a warm house to live in . . . to work and play together . . . to love each other . . . all over the world . . . as friends."

I AM A LITTLE **RABBIT** WHO HAS TO RUN AWAY OFTEN BECAUSE BIG BIRDS...AND SLY **FOXES**.... CHASE ME. I HAVE TALL EARS TO HEAR WITH..... SO I CAN HEAR UP OVER THE TALL **GRASS** I RUN AWAY THROUGH....



I HAVE LONG STRONG HIND LEGS TO RUN AWAY ON....AND AS I RUN....I THUMP MY FOOT **HARD** ON THE GROUND.....A BIG **THUMP**.... THAT ECHOES THROUGH THE GROUND....AND MY WHITE TAIL FLASHES....AND THESE THUMPS... AND THESE FLASHES....TELL OTHER RABBITS... THAT DANGER IS NEAR.





Photographs by Teske

Photograph by Ralph Samuels

PRELIMINARY SPACE MOVEMENT — DIAGRAM, an evolution of movement derived from the theme of a new film.

by Jay Leyda

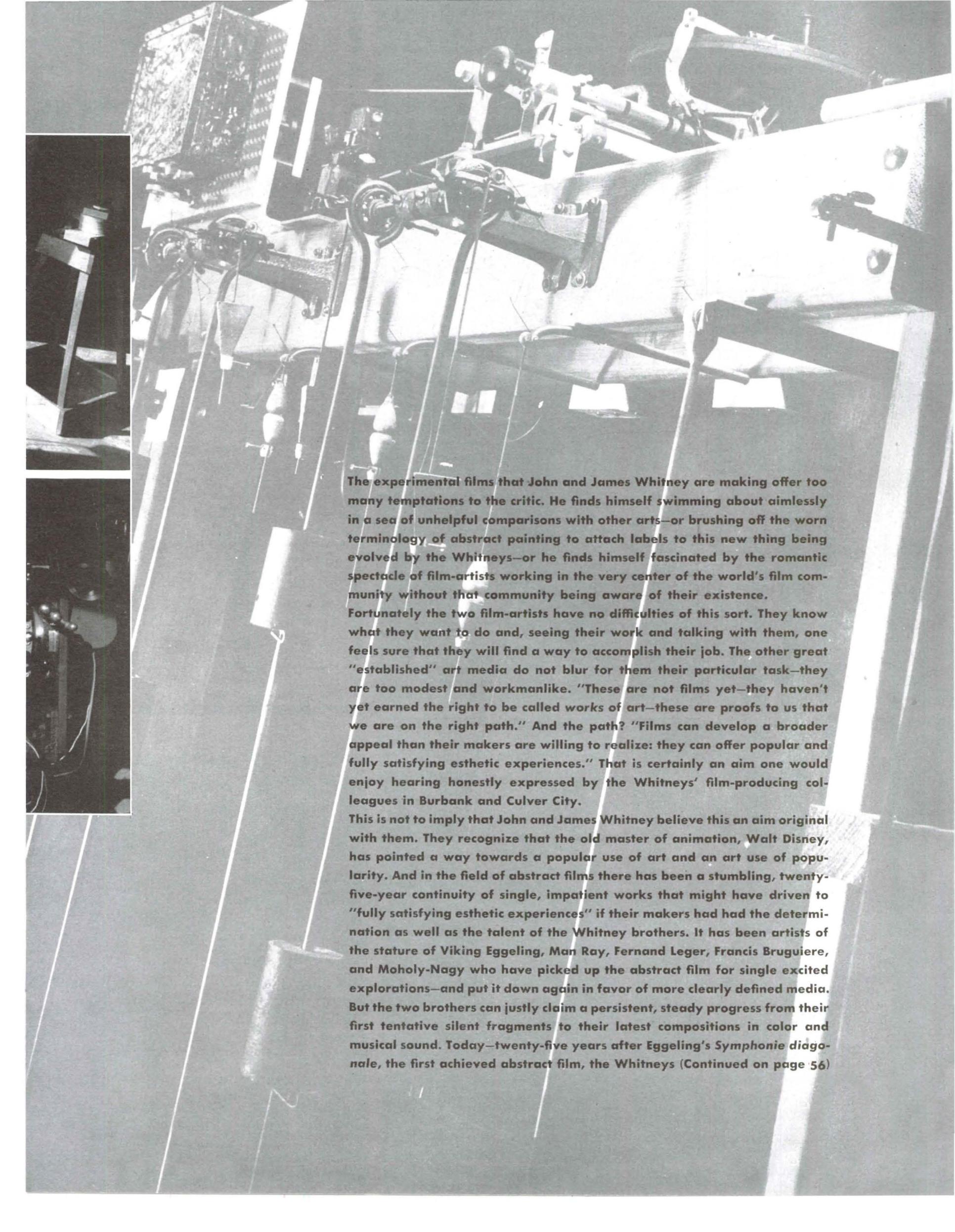
EQUIPMENT USED IN THE PRODUCTION OF THE AUDIO-VISUAL FILM DESIGNED AND FABRICATED BY JOHN AND JAMES WHITNEY.

upper left: manipulation of pantographs on animation table.

lower left: operating pendulum of sound synthesizer, also shown on opposite page.

above: optical printer for composition of graphic material

EXPLORATION OF NEW FILM TECHNIQUES



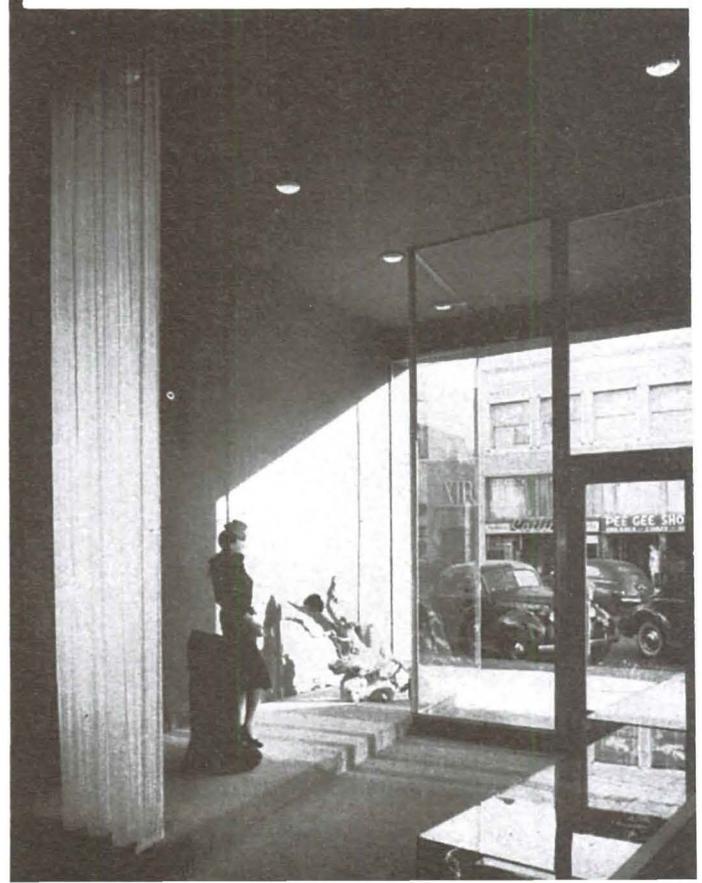
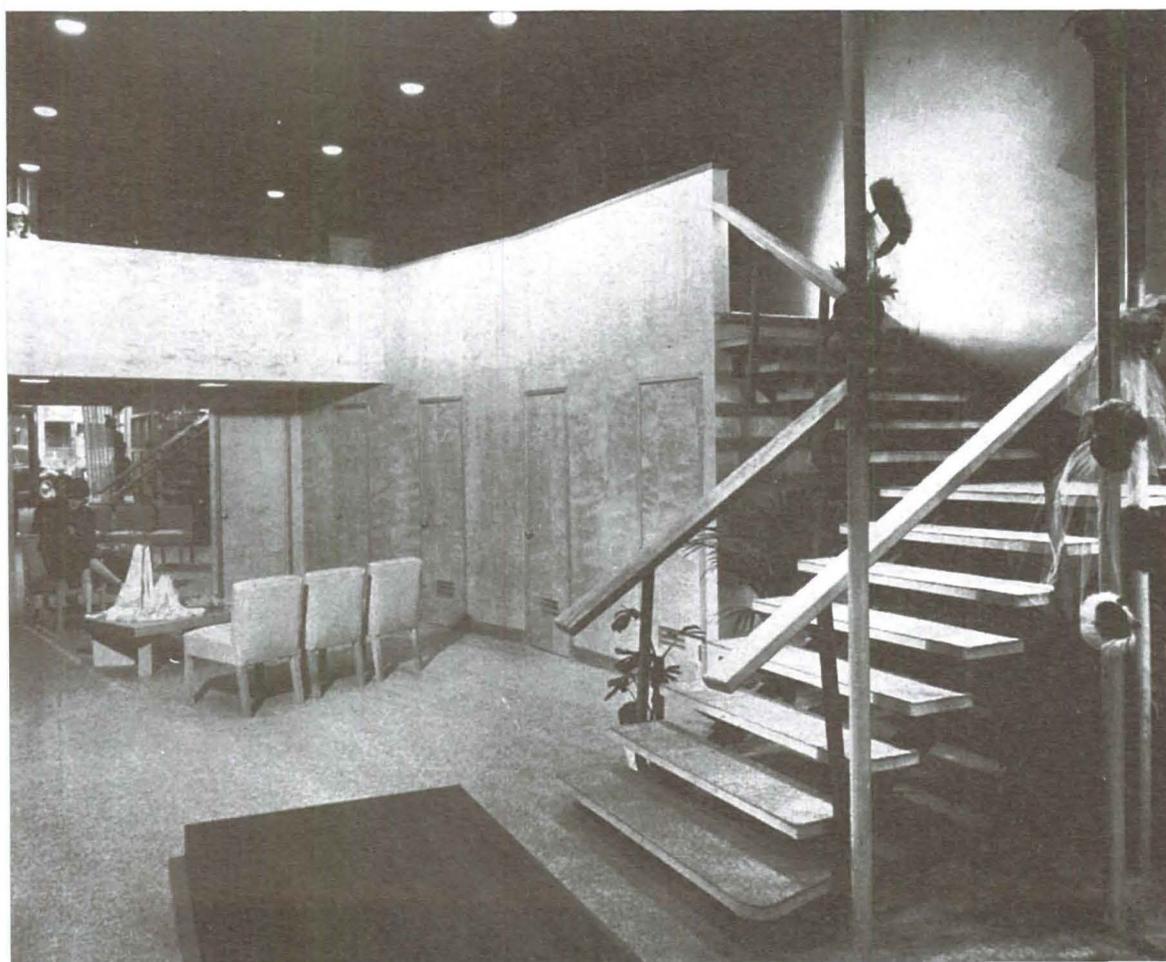
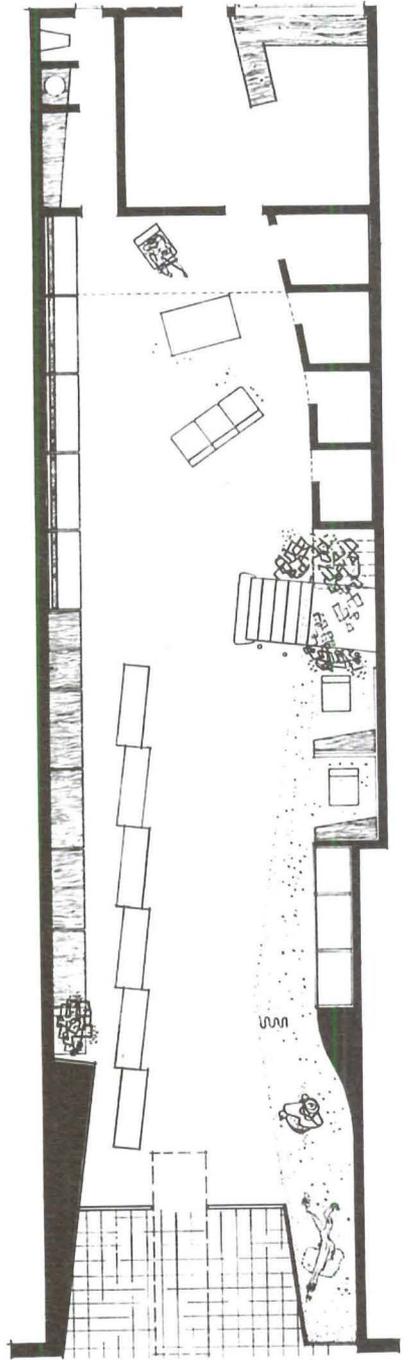
The experimental films that John and James Whitney are making offer too many temptations to the critic. He finds himself swimming about aimlessly in a sea of unhelpful comparisons with other arts—or brushing off the worn terminology of abstract painting to attach labels to this new thing being evolved by the Whitneys—or he finds himself fascinated by the romantic spectacle of film-artists working in the very center of the world's film community without that community being aware of their existence.

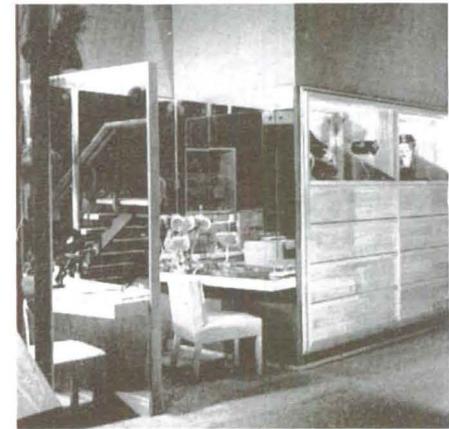
Fortunately the two film-artists have no difficulties of this sort. They know what they want to do and, seeing their work and talking with them, one feels sure that they will find a way to accomplish their job. The other great "established" art media do not blur for them their particular task—they are too modest and workmanlike. "These are not films yet—they haven't yet earned the right to be called works of art—these are proofs to us that we are on the right path." And the path? "Films can develop a broader appeal than their makers are willing to realize: they can offer popular and fully satisfying esthetic experiences." That is certainly an aim one would enjoy hearing honestly expressed by the Whitneys' film-producing colleagues in Burbank and Culver City.

This is not to imply that John and James Whitney believe this an aim original with them. They recognize that the old master of animation, Walt Disney, has pointed a way towards a popular use of art and an art use of popularity. And in the field of abstract films there has been a stumbling, twenty-five-year continuity of single, impatient works that might have driven to "fully satisfying esthetic experiences" if their makers had had the determination as well as the talent of the Whitney brothers. It has been artists of the stature of Viking Eggeling, Man Ray, Fernand Leger, Francis Bruguiere, and Moholy-Nagy who have picked up the abstract film for single excited explorations—and put it down again in favor of more clearly defined media. But the two brothers can justly claim a persistent, steady progress from their first tentative silent fragments to their latest compositions in color and musical sound. Today—twenty-five years after Eggeling's *Symphonie diagonale*, the first achieved abstract film, the Whitneys (Continued on page 56)



Photographs by Julius Shulman





SMALL MODERN SHOP

The problem of the dress shop was to rejuvenate a building fifty years old, in the center of the best business section of Pomona. For years the shop had been successively remodeled with layers of plaster, wall paper and wood, hung ceilings, super-imposed floors, and papier mache ornaments which had reduced the size and scale of the original building. The architect's first job was to clean out the space.

First there was a question as to whether a town in the citrus country would support an exclusive women's ready-to-wear shop, especially if it were designed in line with the latest merchandising techniques. However the owner felt the time had come for the town to raise its sights.

The shop was designed around the idea that the room itself was to be a showcase. The room being narrow, a large mirror 14x16 feet extending from floor to ceiling at an obtuse angle with the street, was installed. By placing opposite the mirror a display platform raised slightly above floor level on which a mannequin, fur pieces, jewelry and other articles may be shown, the display may be seen from either direction. A series of showcases is staggered parallel to the mirror for jewels and lingerie, with storage for stock in both open and closed cases along the wall. Beyond the mirror-lined alcoves for millinery, the stairway breaks the length of the room and leads to the principal display of furs on the balcony.

The main walls are painted a deep olive green and the ceiling a warm dark brown. In the rear of the shop the walls which enclose the dressing, fitting and stock rooms are light, highly polished birdseye maple. The floor is covered with beige carpeting. A series of small circular louvred fixtures flush with the ceiling provide effective lighting—throwing a warm brilliant light on objects in the room without producing glare.

client

Ora-Addie

location

Pomona, California

architects

the office of Sumner Spaulding • John Rex

contractor

Stover Brothers

adventure IN education

BY EDWIN AND MOLLY MORGENROTH

■ “Daddy, what makes Judson black?” The three-year-old child who asks this question because he has had a friendly relationship with children and adults of other races is, in our estimation, indeed fortunate; fortunate to have had experiences so that he can *ask* questions. An honest question must have an honest answer and we reply, “He is black because his skin has more pigment or color in it than ours has.” “We like Judson,” our youngster adds, “will he be at nursery school today?” Here is the beginning of a constructive attitude toward race—a desire for information; an opportunity for face to face contact in a friendly environment; the guidance of adults who are experienced and trained to promote interracial understanding. This is a very important part of preparing children for happy, constructive and useful lives in our great country.

Much has been done to make us aware of what young children need: an environment which offers proper food, housing, rest, and equipment suited to age, and interests; guidance which develops talents and abilities, and which nurtures affections. Every good nursery school strives to maintain high standards in these areas.

In the field of social relationships an adequate nursery school program is committed to developing “respect for property rights, cooperation, responsibility to the group, subordination of self to group needs, and understanding of other persons, their needs and wants.” Too much of our pattern of education has set out to carry out the above ideals with children from families who we like ourselves; i.e., comparable social and economic status and usually similar racial backgrounds.

One finds listed in practically every college catalog a graduate course in *Interracial Problems*, in which “we will *examine* (!) the question of race.” In later years these college courses have actually reached the undergraduate course listings. We feel that this approach is not enough, and that we cannot wait until college years. *Race Against Time*, a new book dealing with anthropology for high school students, by Krogman and Alpenfels, is most timely and in the title indicates our conviction that it is time for bold and sweeping reconstruction of our social attitudes as adults and teachers. How can we move forward at all levels of maturity at once in this tremendous problem which faces us?

The time has passed for what has been called for many years an “educational approach.” Too often this has meant surveys, studies, discussions and *no action*. We are convinced that Brother Lawrence had a key to the situation in his comment “—but his example was a stronger inducement than any argument he could propose.” If we agree with Paul Sears that “the land shapes the lives of those who live upon it, and they in turn mold the land to their will,” we will see the terrific impact of the *circular relationship* between the development of individual personality and the cultural pattern.

If we agree that children must be taught “understanding of other persons, their needs and wants,” we must be sure that we have included persons of other racial and cultural groups in their environment. Within the structure of good educational practice we must be able to say that:

—Our family (our school) knows and works with people of other racial and cultural groups.

—Within every group there are different kinds of people with differing degrees of knowledge and skill.

—Within our school and professional service experiences there are skilled individuals of other racial groups functioning at *normal* everyday tasks; i.e., that members of minority groups find their places on the faculty as well as in the kitchen!

—We can recognize individual and group differences in that in our very differences we can find strength, and that we can live peaceably together.

The school can help in developing the proper environment if parents and teachers *together* can catch a vision of racial justice and understanding that will be a part of a totally new orientation to values that are set in contradiction to those widely accepted in our day. Most of us have experienced the pressures and heavy hand of materialism in the highly aggressive and competitive system in which we live. We have all felt the needs to simplify our wants, to cooperate with others, and nurture (within the conflicting demands made upon us) the spirit which recognizes the dignity of all men.

(continued on page 62)



CASE STUDY HOUSES #8 AND #9

BY CHARLES EAMES AND EERO SAARINEN

CASE STUDY HOUSES

8

AND

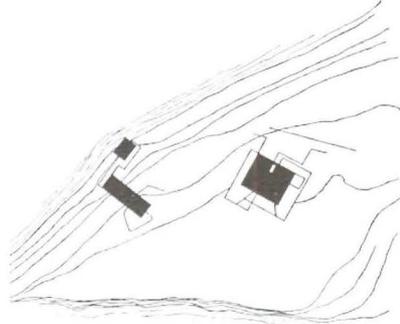
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BY CHARLES EAMES AND EERO SAARINEN, ARCHITECTS

This is ground in meadow and hill, protected on all sides from intrusive developments free of the usual surrounding clutter, safe from urban clatter; not, however, removed from the necessary conveniences and the reassurances of city living.

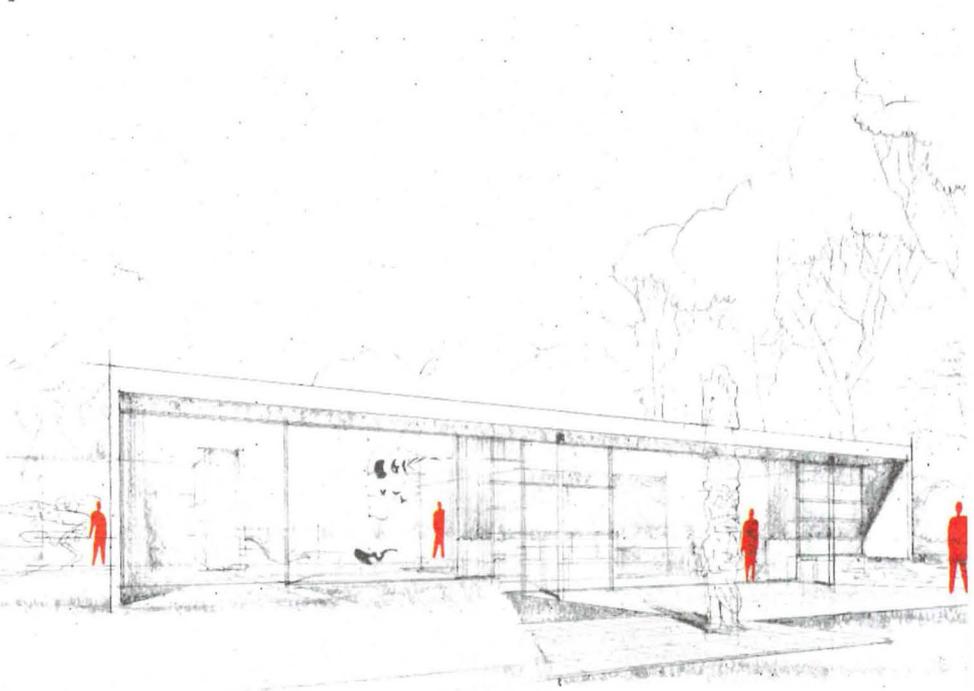
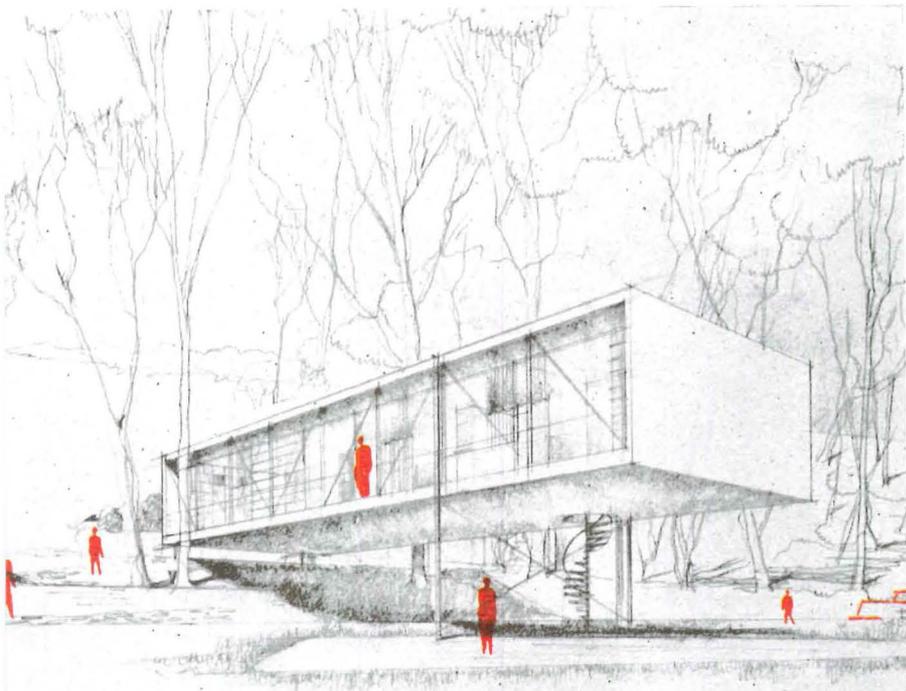
Two houses for people of different occupations but parallel interests. Both, however, determinedly agreed on the necessity of privacy, or the right to choose privacy from one another and anyone else.

While these houses are not to be considered as solutions of typical living problems; through meeting specific and rather special needs, some contribution to the need of the typical might be developed. The whole solution proceeds from an attempt to use space in direct relation to the personal and professional needs of the individuals revolving around and within the living units inasmuch as the greater part of work or preparation for work will originate here. These houses must function as an integral part of the living pattern of the occupants and will therefore be completely "used" in a very full and real sense. "House" in these cases means center of productive activities.



For a married couple both occupied professionally with mechanical experiment and graphic presentation. Work and recreation are involved in general activities: Day and night, work and play, concentration, relaxation with friend and foe, all intermingled personally and professionally with mutual interest. Basically apartment dwellers, there is a conscious effort made to be free of complications relating to maintenance. The house must make no insistent demands for itself, but rather aid as background for life in work. This house—in its free relation the ground, the trees, the sea—with constant proximity to the whole vast order of nature acts as re-orienter and "shock absorber" and should provide the needed relaxations from the daily complications arising within problems.

In this house activities will be of a more general nature to be shared with more people and more things. It will also be used as a returning place for relaxation and recreation through reading and music and work—a place of reviving and refilling, a place to be alone for preparation of work, and with matters and concerns of personal choosing. A place for the kind of relaxed privacy necessary for the development and preparation of ideas to be continued in professional work centers. The occupant will need space used elastically where many or few people can be accommodated within the areas appropriate to such needs. Intimate conversation, groups in discussion, the use of a projection machine for amusement and education, and facilities for self-indulgent hobbies, i.e., cooking and the entertainment of very close friends.



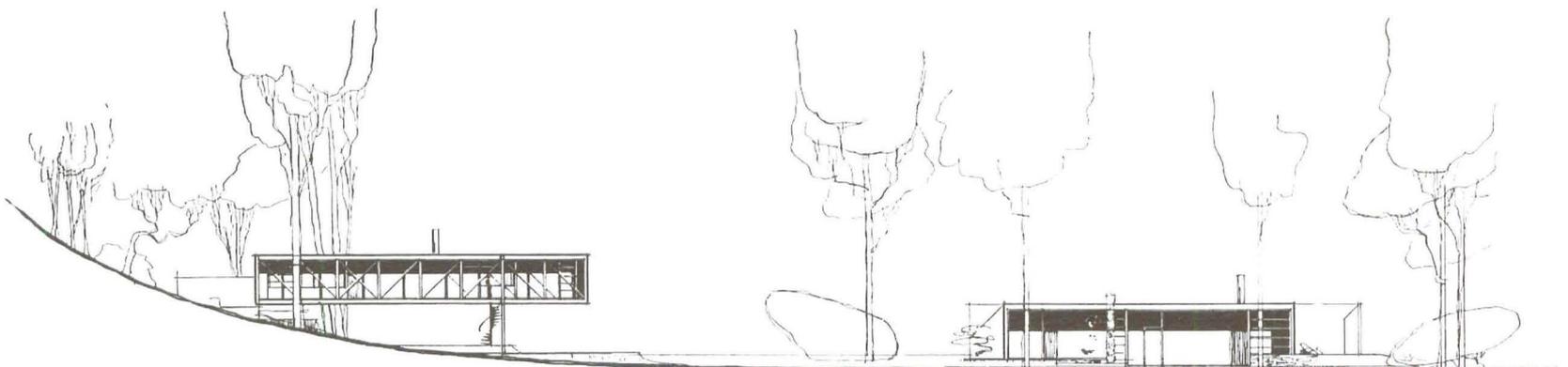
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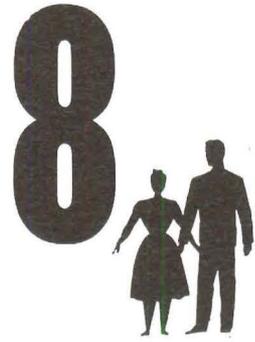


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While the land is intended to be used communally, each house is so oriented that it has complete privacy within its own indoor-outdoor needs. The road follows the natural contour of the hill and will be allowed to gather leaves and regain the natural surface of the land. It serves each of the two houses, expanding for necessary turning and parking areas. House #8—is independent of the ground—a point in space looking directly at the mass of the sea. It is related to the ground only through the terrace areas over which it hangs. House #9—incorporates the meadow of which the living scheme is an integral part. It, too, has direct and unobstructed view across the meadow through trees to the sea.





Completely separated from the house and set into the hill is the workshop with its power tools and photo lab. Minimum toilet and cooking facilities make it a possible but not too cozy shelter for visitors.

Work terrace half shaded by eucalyptus trees and shrubs.

The mobile dining table, prepared in kitchen for service anywhere.

This door occurs step above grade.

Laundry and utilities.

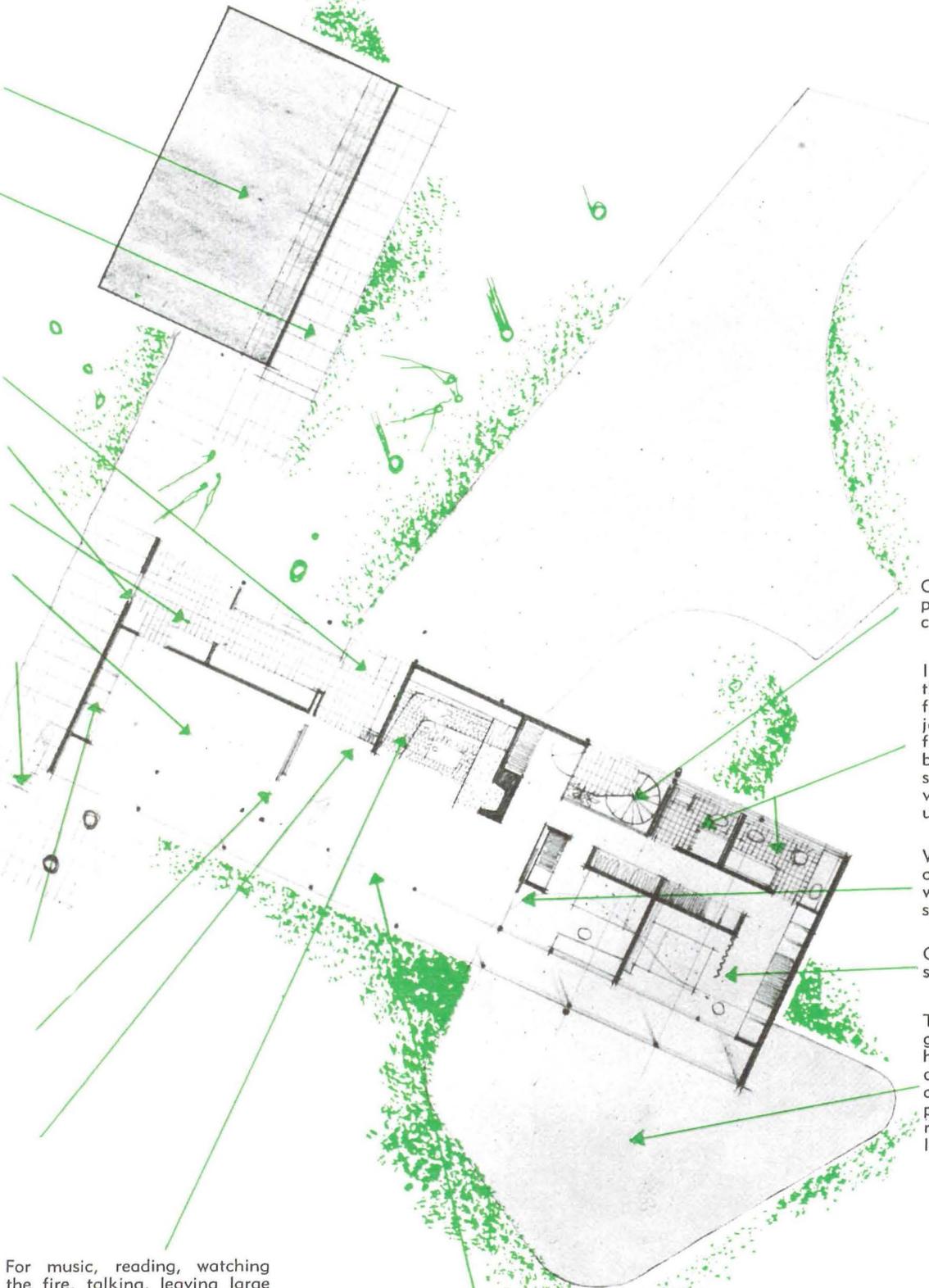
For any other occasional large scale entertaining, buffet tables may be set on drafting boards and served from utility area.

Bulky objects impractical for spiral stair can be taken up easy steps of hill.

Cases in workroom are floor to ceiling, containing materials, files, equipment, etc.

Sliding doors can cover any part or all of the opening between living area and workroom.

Folding door allows maximum opening to kitchen. It should be possible for these two people to be occupied in different areas and not be cut off from each other.



Circular stair from under house parking to living floor. Translucent glass around landing area.

It is considered essential that the beginning of the day's professional activities not be subject to the delays and confusions and limitations of one bathroom. In case of guest, second bathroom can be conveniently separated for private use.

When guest room is not occupied, wall slides back, adding window and floor area to living space.

Curtain draws to put bed in simple unbroken cubicle.

This terrace, slightly above the ground and partially under the house, forms the center of the outdoor living. The ground around is not intended to be put into a formal lawn but rather allowed to gather the leaves and pods and bark.

For music, reading, watching the fire, talking, leaving large unbroken area for pure enjoyment of space in which objects can be placed and taken away . . . driftwood, sculpture, mobiles, plants, constructions, etc.

Glass is set back four feet from truss, forming deck and overhang and continuation of floor and ceiling.

9



Service and laundry including work bench with small tools for puttering and fixing. The area can be used as an extension of the kitchen facilities.

The kitchen is planned for owner-cook . . . everything within easy reach. Plenty of counter space for unsystematic preparation of food.

Folding door closes off kitchen area.

A general sitting space, with sofa, comfortable chairs. Area for receiving droppers-in, serving coffee; convenient to kitchen during preparation of food.

From this column there will be indirect lighting from the ceiling.

Utilities

A breakfast terrace receives the morning sun. A small mobile dining table which can be set in the kitchen operates anywhere on this level.

Steps that form a change of level afford informal sitting for larger gatherings and relate the space in a way which will encourage such gatherings to divide into small groups.

This space normally occupied by sculpture will be used for a large dining table or the service of buffet. The table is collapsible and will be brought from storage in sections.

The fireplace is free from any wall, helping to define the space but does not obscure the openness toward the sea. Around it the change of level forms a sitting area.

Two car garage with automatic garage door. The night lighting of the drive and parking area will pick out a few shrubs and trees to give a feeling of space on arriving or leaving.

A planting area open to the sky with glass division between it and entrance area.

Hall closet.

Guest room is a fair minimum. Accessible to bath, but separate from dressing room.

The study is just that—for concentration and work. Having neither windows nor skylight it decreases the extra-awareness and distractions; provides a contrast with the open areas.

By enclosing shower and toilet, the social use of this area is increased.

The bath area is a background for leisurely bathing and dressing. A place for relaxed concentration, planning of the day's work, or just regaining perspectives.

A sliding wall opens the dressing room into the bath, closing to allow privacy or complete steaming up. The lavatory and dressing table are part of this dressing area.

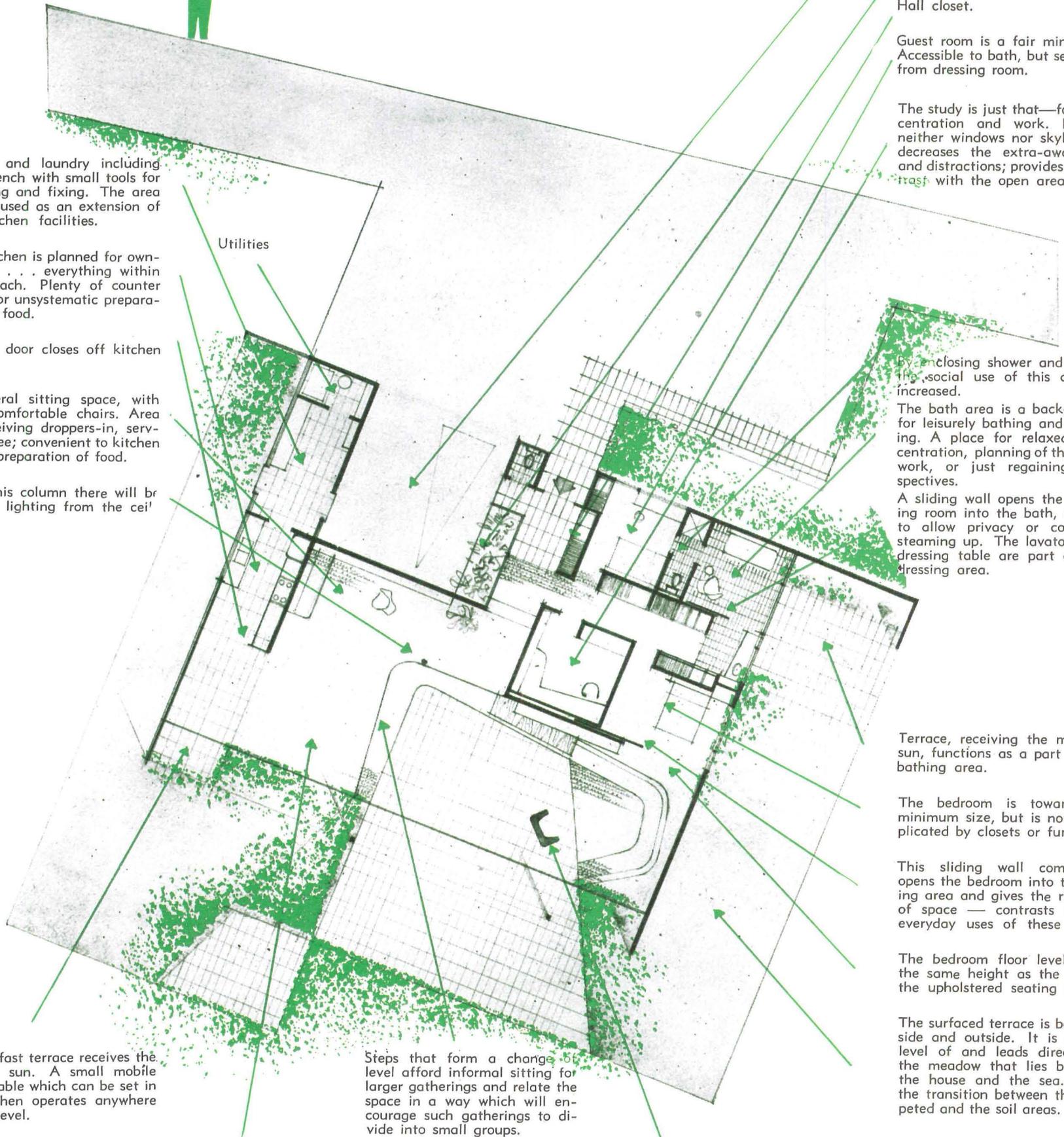
Terrace, receiving the morning sun, functions as a part of the bathing area.

The bedroom is toward the minimum size, but is not complicated by closets or furniture.

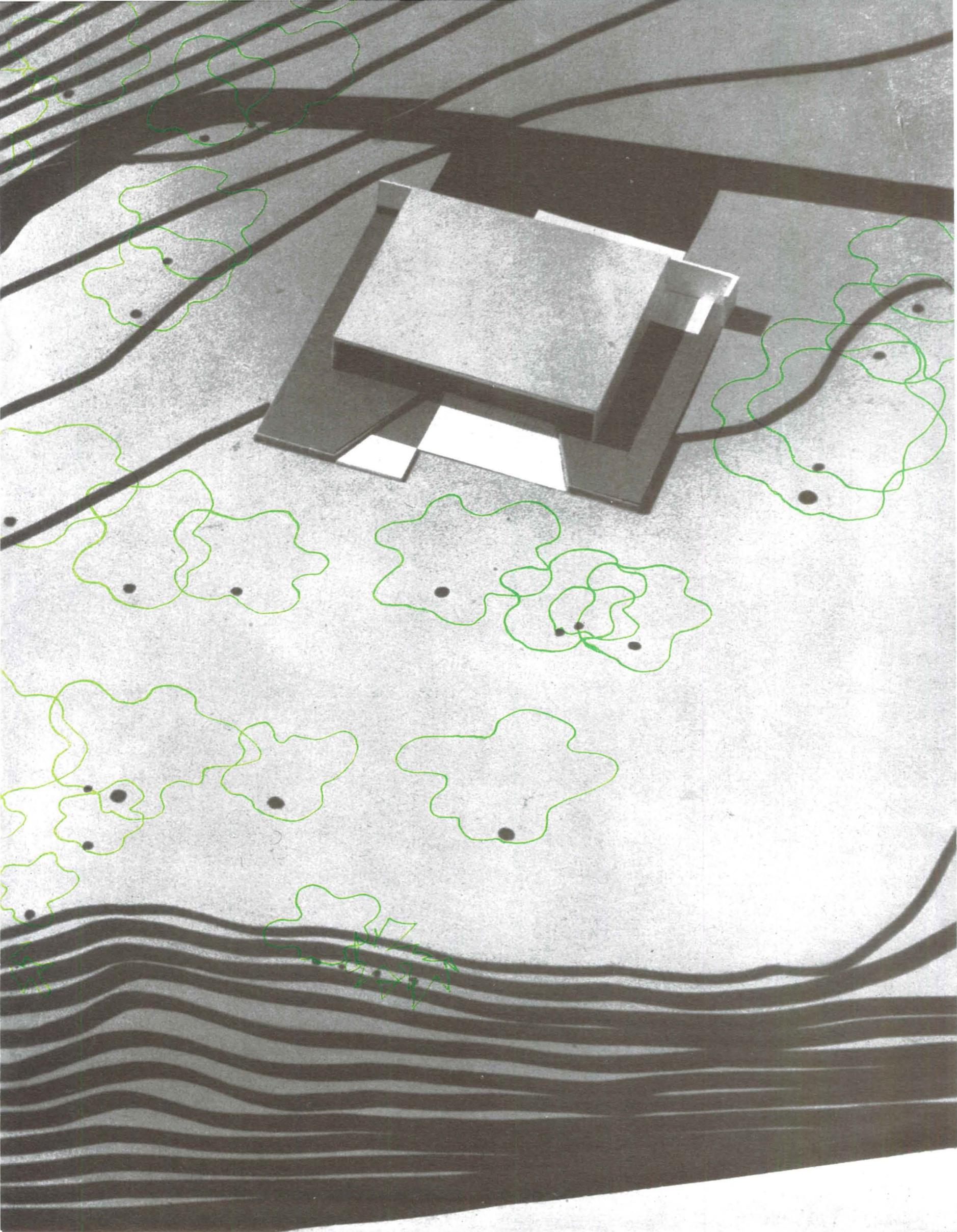
This sliding wall completely opens the bedroom into the living area and gives the richness of space — contrasts to the everyday uses of these areas.

The bedroom floor level is at the same height as the top of the upholstered seating back.

The surfaced terrace is both inside and outside. It is at the level of and leads directly to the meadow that lies between the house and the sea. It is the transition between the carpeted and the soil areas.



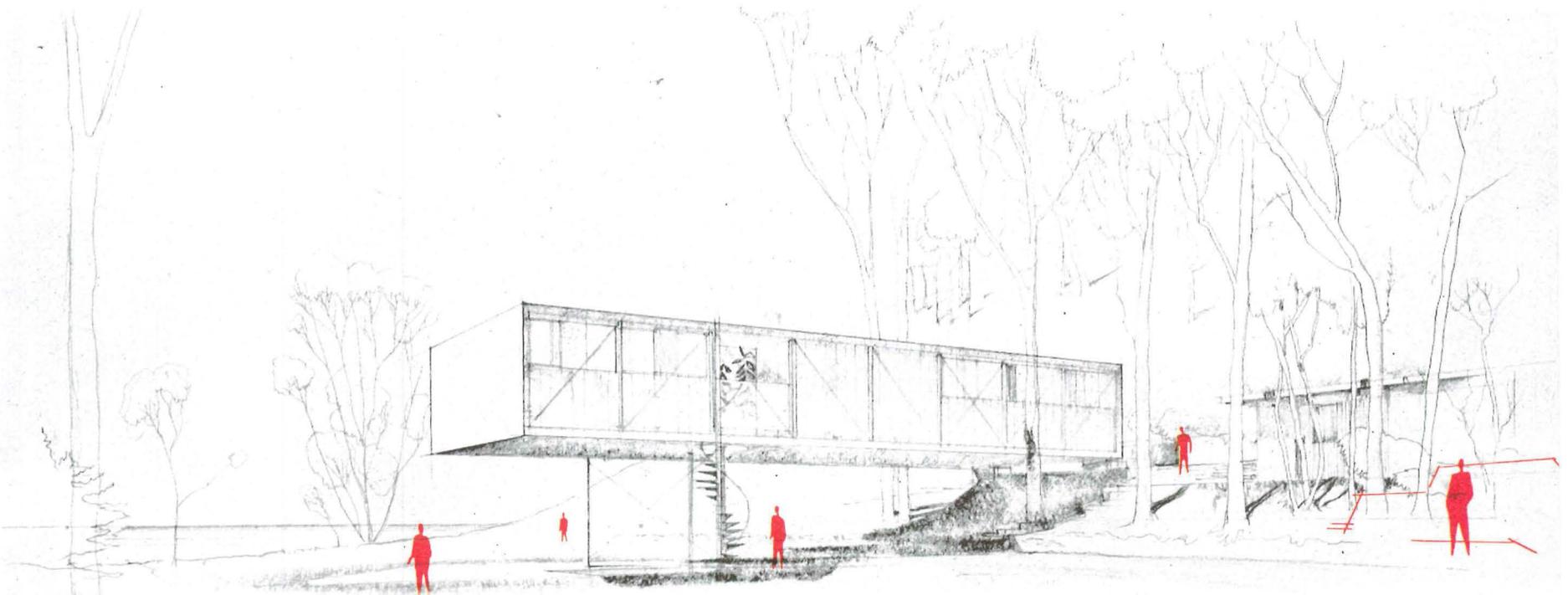
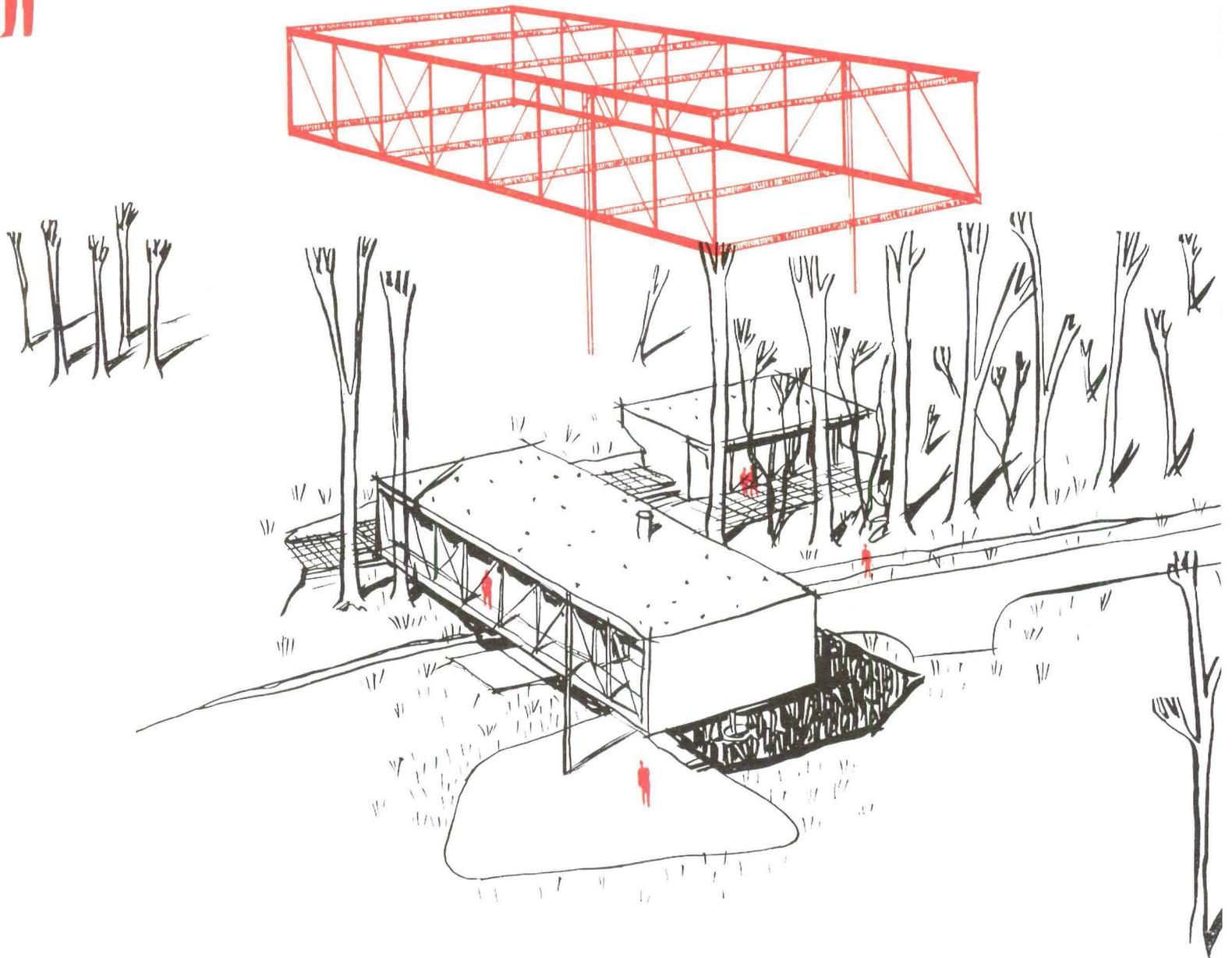
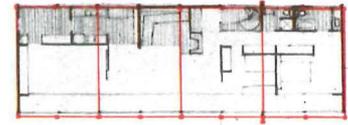




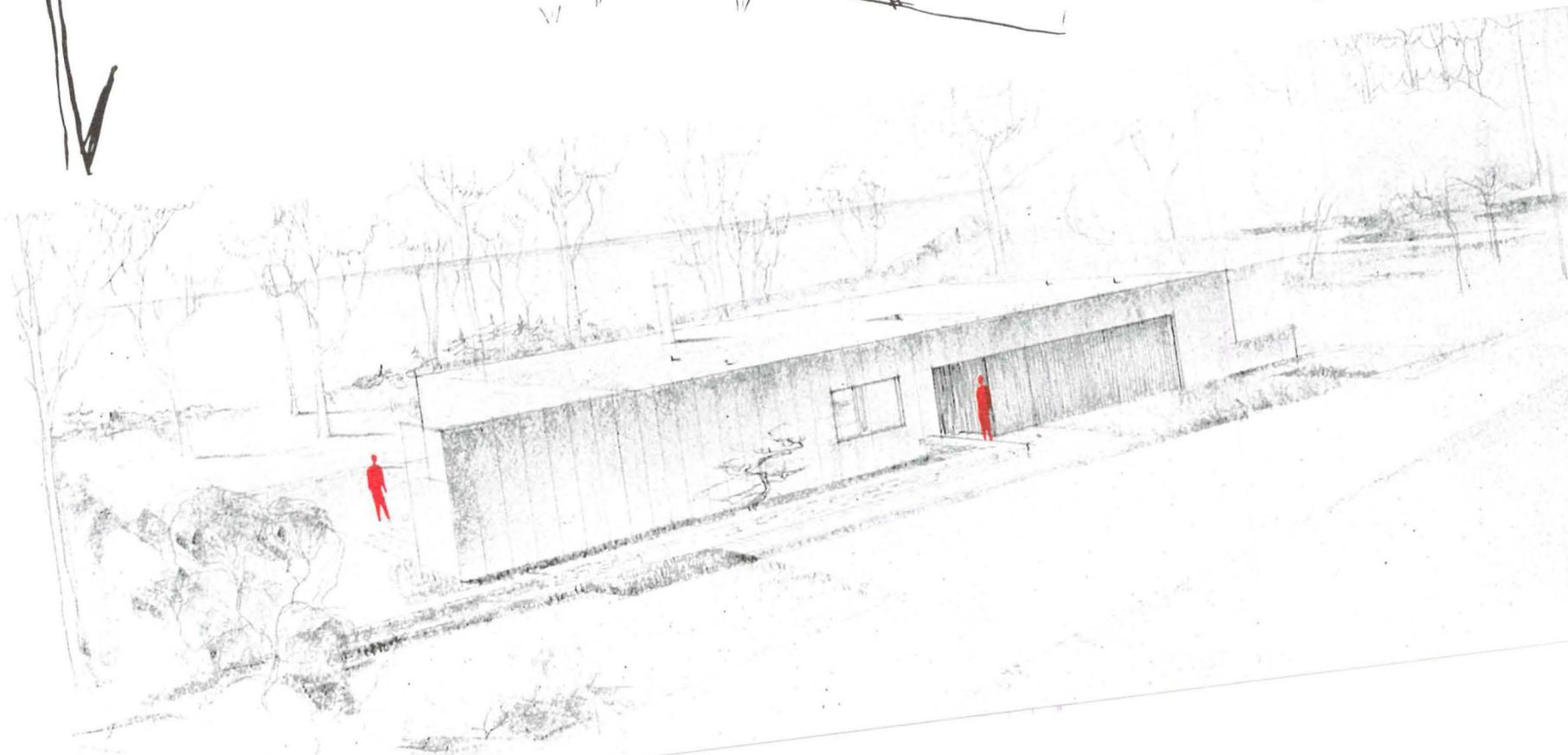
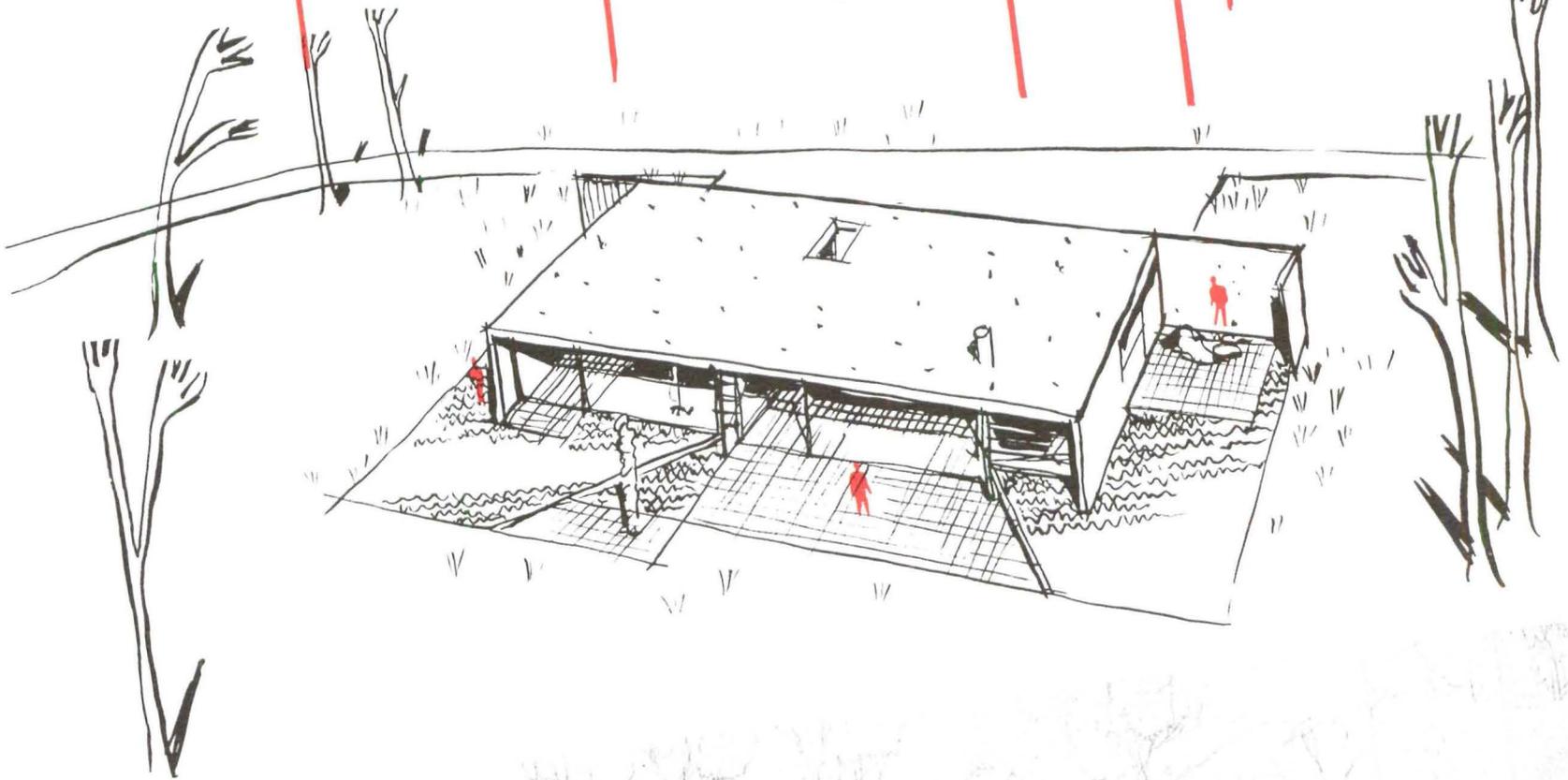
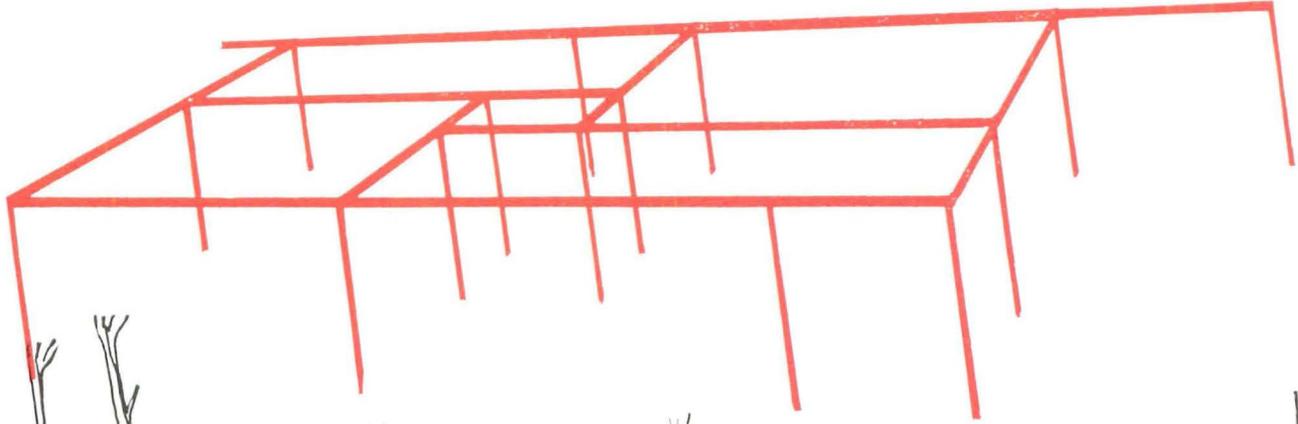
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The house is built between two trusses. The floor and ceiling help to stiffen the top and bottom cord of the truss, and together with the truss form a box beam. The end walls keep the box beam from collapsing sideways. The structure rests on two steel supports, these being set in so that the end of the box forms a cantilever. This shortens the span and develops a negative moment over the support which makes for a more economical truss. Cross bracing between the steel supports gives added strength.



Object to enclose as much space as possible within a fairly simple construction. The four columns in the middle are so placed to allow for cross bracing as well as continuity. Most of the joist load is transmitted to the outer rim of the rectangle and all carrying members inside carry a fairly light and equal load. Because of this the ceiling does not need girders projecting below the joist but is a simple flat slab.





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new developments

INGERSOLL ANNOUNCES "MECHANICAL CORE"

A tradition smashing new home-building unit which consolidates household heating, plumbing, electrical, bath, kitchen and laundry elements including major appliances, has been revealed by Roy C. Ingersoll, president of the Ingersoll Division, Borg-Warner Corporation. The unit was designed to make modern conveniences available at a price reduction which, according to Ingersoll, reaches down into the range of a large segment of American homes now on a substandard basis.

Six million to seven million families will be able to advance into an undreamed of standard of living, according to computations made in behalf of the big Middle Western manufacturing concern. Although factory engineered for assembly-line production with consequent lowered costs, the new unit goes far beyond the scope of its own utilities and appliances in its potential saving because the consolidation of facilities permits a reduction in house cubage which is the essential index of housing costs.

The Ingersoll unit is adaptable to both conventionally-built houses and pre-fabricated houses ranging in price from \$3,000 to \$10,000. Ingersoll said that he had commissioned seven of America's outstanding architects to design 12 homes to show the wide flexibility and practical operation of the unit. These homes are now in process of construction at Kalamazoo, Michigan. As a result of the development of the mechanical core, the architects reported to Ingersoll that the use of the unit will revolutionize home planning.

Discussing United States census statistics showing that 14,320,000 American homes lack a bath of any kind, 6,000,000 lack adequate plumbing, nearly 19,000,000 are without mechanical refrigeration and 19,802,000 do not have central heating, Mr. Ingersoll continued:

"We believe, from our studies, that 6,000,000 or 7,000,000 families are in a marginal situation where a reduction in the expense of building and equipping a home will enable them to enjoy the American standard of comfort and convenience.

"We approached this problem by conceding that a material cost reduction involved the smashing of many traditions. We literally took housing apart to see what it was made of and why it was made that way. As a result we reached a very natural and logical conclusion which we believe will solve a great many of the problems concerning low cost housing. This answer lies in coordination of research, design and production technique laid down on an assembly line and tailored to meet American needs.

"Essentially we have developed a complete home utility unit, the core of which contains central oil or gas heating plant with thermostatically controlled forced warm filtered-air, entire household plumbing, hot water heating, electrical connections and meters. This central core is a self-contained package which can be rolled through the door framework and yet is so engineered for accessibility that a man can get inside and service it. On three sides of the core we have integrated in beautiful streamlined design all the appliances and facilities which belong in the most modern kitchens, laundries and bathrooms.

"Household utilities and equipment have been developed in the past as independent units for individual production and distribution and these are now for the first time integrated to provide greater utility at lower cost. It was the genius of American industry that developed mass production technique in the

automotive industry and this now becomes available to the home building field."

Ingersoll said that initial productive capacity is expected to be taken up for large scale housing developments. The unit will be constructed in the company's Kalamazoo plant which during the war turned out the famous Ingersoll Beach Buster, the Navy's amphibious tank.

Four advantages contemplated by the company in developing the unit, he said, were:

1. A builder restricted to an extremely limited budget can supply a completeness of living facilities impossible up to this time.
2. The reduction in house cubage made possible by the unit's central utility core will save materially on general construction expense and bring complete facilities into the reach of marginal families otherwise forced to begin home ownership with only the shell.
3. Lower cost, long term financing of the house complete with utilities is made possible by integration of the utilities as a permanent part of the structure.
4. A speed-up in building is promised because houses equipped with the unit can be occupied sooner.

"Essentially," Ingersoll continued, "we are providing the half of a man's home which has come to be regarded as the index of the American standard of living. Too often a home buyer has never been able to complete the installation of these conveniences and appliances after providing himself with four walls and a roof. The beauty of design in itself represents an aesthetic addition to a household. We have made our group of houses at Kalamazoo a testing ground which we hope will be viewed by those concerned with large scale home building.

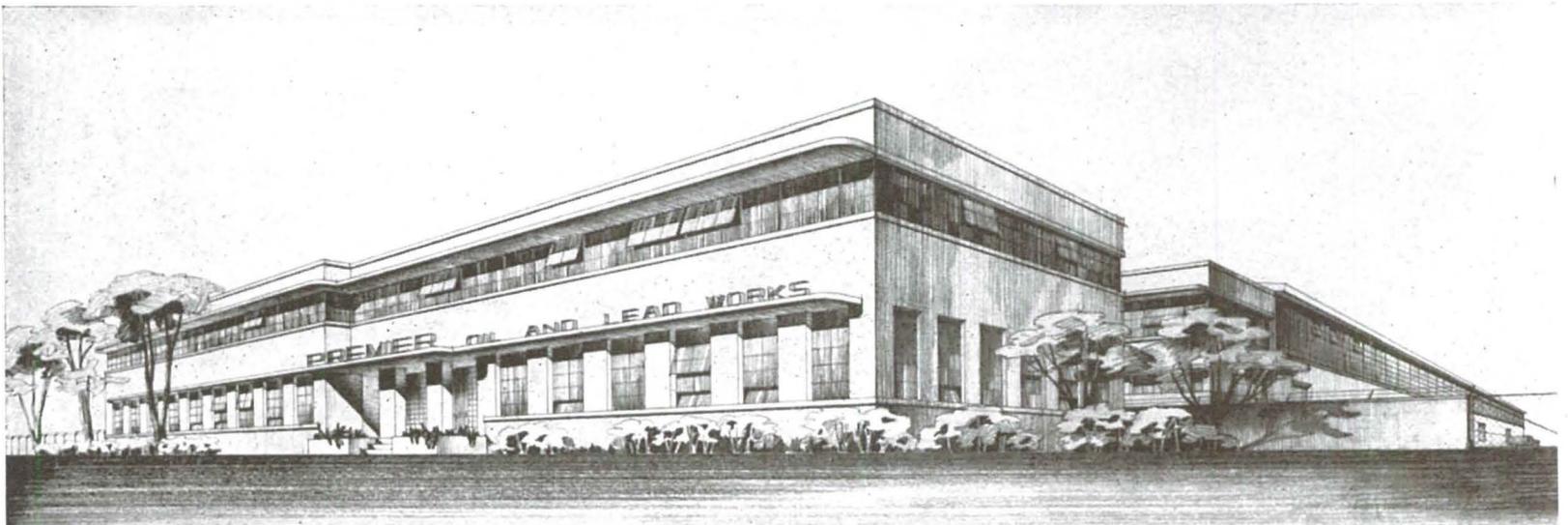
"As in the case of all new conceptions and advancements in designing and manufacturing techniques, we hope that the new Ingersoll unit will spread additional benefits to millions of Americans who buy homes built during the next decade and at the same time through the stimulation of home building create a vast number of additional jobs just as the automobile, radio and other modern inventions have done."

NEW ADMINISTRATION BUILDING FOR PREMIER PAINT

The postwar expansion program for the manufacturers of Premier Paints has been put under way by beginning construction on their new Administration Building and Warehouse. The buildings are the first to be erected on a five acre site located directly across the street from the present factory.

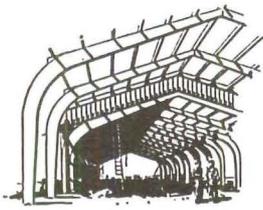
This is the fourth major expansion program experienced in the rapid growth of the company since it was founded twenty years ago. The first factory was a single garage building located on Maud Street in Los Angeles. The present factory was built in 1934 at 3950 Medford Street, and has since been twice doubled in capacity.

The additional space provided by the new buildings will permit the further expansion of the present factory to the largest paint production capacity of a single plant in the West.



ARCHITECTS' DRAWING OF THE HALF MILLION DOLLAR ADMINISTRATION BUILDING AND WAREHOUSE FOR THE PREMIER OIL & LEAD WORKS IN LOS ANGELES. THE PROJECT IS BEING HANDLED BY THE AUSTIN COMPANY.

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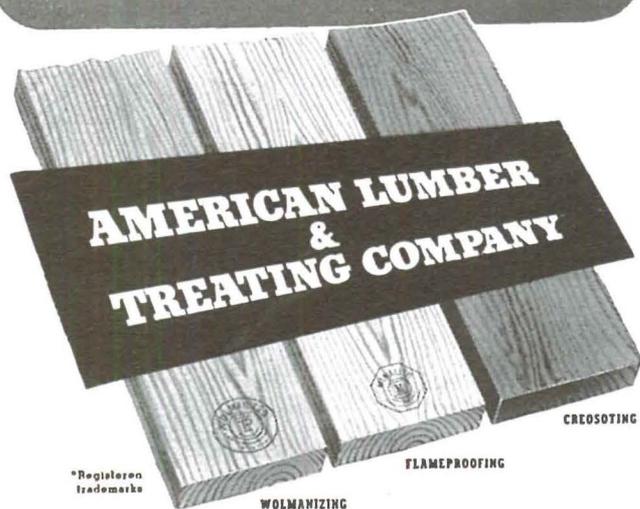
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DRAYER-HANSON ELECTRICAL HEATING

A new model of Airtopia, a single compact unit that gives constant year 'round temperature and humidity control together with air purification, has been announced by Drayer & Hanson, Inc., designers and manufacturer of heat exchange equipment, Los Angeles. Formerly known as Reversatemp, the new model is especially suitable for homes, offices and small stores. Airtopia, designed by Gilbert E. Clancy, is a modern application of the known principles of thermodynamics, combining them in proper proportion and balance. The unit keeps room temperatures constant despite outside weather conditions, alternating between heating and cooling as required. This is especially convenient in the Spring or Fall when heating is necessary in the early morning or late afternoon hours, but midday temperatures outdoors call for cooling inside. The original cost and operating expense is less than the commonly used combination of combustion and compression refrigerating systems. The smallest Airtopia fits into a 3½' x 5' x 7' high space. It is suitable for a 7 room house; or small office or store building. The units are available in sizes suitable for homes, office buildings, laboratories, stores, sanatoriums or professional offices. Airtopia needs no chimneys, and leaves no soot, smoke, ashes, fire hazard or idle equipment. Electrical energy alone supplies the power to operate the compressor and motors. For information write to Drayer & Hanson, 767 E. Pico Blvd., Los Angeles 21, California.

MAGIC CHEF COMPETITION JUDGES

Four leading architects and designers and one home economics expert have been named judges by Architectural Forum for the American Stove Company's \$18,000 Magic Chef gas range design contest, S. E. Little, vice-president, has announced. They are Peter Schladermundt, of VanDoren-Nowland & Schladermundt, New York; Edward D. Stone, New York; Samuel A. Marx, Chicago; Gardner Dailey, San Francisco, and Elaine Knowles, New York. Schladermundt has designed a number of airports for Curtis-Wright, New York City public works building, New York Daily News Building, and worked on planning and detailing for the Rockefeller Center development. He currently is designing for American Thermos Bottle, Autocar, Baldwin Locomotive, Beech Aircraft, Esterbrook Pen, Horton Manufacturing, Ingersoll-Rand, Life Magazine, Pan-American Airways, Sears Roebuck, and U. S. Envelope. Stone's commissions have included the Museum of Science and Industry, Rockefeller Center, Henry Luce's modern South Carolina Plantation group, and the New York Museum of Modern Art's new building. He has also designed

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well-known residences in Mt. Kisco, N. Y., Cambridge, Mass., Reading, Pa., Tallahassee, Fla., Old Westbury, L. I., Washington, D. C., and Madison, Conn. Marx, a native of Natchez, Miss., entered the architectural field, after studying here and abroad, by winning the 1909 national competition for design of the Delgado Museum of Art in New Orleans. He has designed many better class residences and buildings, and was an originator of the idea that architects be responsible for landscape layouts and all furnishing and decoration of the buildings they design. Marx is also a noted industrial designer, while his paintings, done as a hobby, have been displayed in many important exhibitions throughout the country.

Gardner Dailey's practice is largely residential, but includes such institutional work as the Coral Casino Beach and Cabana Club for the Santa Barbara Biltmore, and workmen's housing units and ranch buildings in Nevada and Arizona for Allied Land and Livestock Company.

Miss Knowles is a noted expert in the home economics and home equipment fields. She has been a home economics teacher in Maryland, was a field agent for the Maryland and New York Extension Services, and did four years of residence and research work in the field of management and household equipment at Cornell University, where she earned both M.S. and PH. D degrees. Her most recent work has had to do with a new research approach to the matter of the effects the design of a product have on the user.

Professional advisor for the judges is George B. Nelson, of the American Institute of Architects. Hundreds of registrations for entry in the gas range contest have been received since it opened November 1. They are coming from housewives, college students, and college faculty members, as well as from professional designers, engineers, and architects.

Registration for entry is accomplished through writing to Mr. Nelson, care Architectural Forum (the contest sponsor), Dept. P-3, 350 Fifth Avenue, New York, N. Y. A booklet outlining contest rules and the basic technical data required to enter a design is forwarded to all registrants.

EDUCATIONAL PROGRAM FOR FANS

Starting January 1, the Fan Section of the National Electrical Manufacturers Association will launch an educational program on the use and functions of electric fans. Although electric fans have been a common household convenience for sixty years, their usefulness in the home and office has never been fully realized. Fans for air circulation and ventilation are important to health, both winter and summer. A nationwide information service, through the trade press and consumer publications, will explain how to get the greatest benefit from the many types of portable fans and fixed fans now in service. Few fans were produced for home and office use during the war years because

continued on page 57



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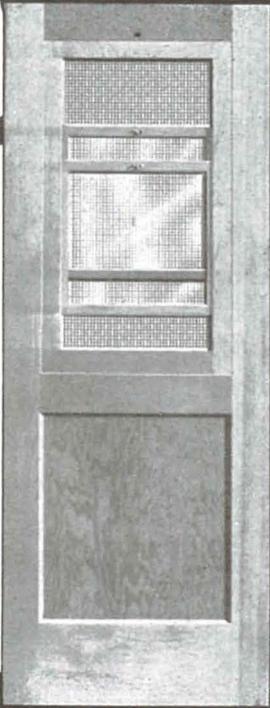
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EXPLORATION OF NEW FILM TECHNIQUES

continued from page 39

can look about them and see only two other artists who can offer a comparably solid body of work in this field for our examination: Len Lye and Oskar Fischinger. And as they stand beside these veterans, one must note that John is 29 and James 23!

An analytical critic could begin the record of their progress further back, before the Whitneys found their future medium. This sketch, however, is content to point out that John came to films *via* photography and music, while James arrived *via* painting. The pooling of those studies and enthusiasms made an ideal family arrangement that might almost have been expected to culminate in abstract sound-films. Add John's motion picture records of celestial phenomena to James's experiments in water-color with the aim of controlling the time-plan of the spectator's attention—and you have a good start-mark for the films to come.

The first attraction for the brothers was the accomplishment of visual abstraction, or a *musical* vision, in a film form. Their original adaptation of the standard optical printer made it possible for them to create relatively simple animated sequences in color. Winning *control* was important to the beginners, and in 1941 they proved both their control over the medium and the flexibility of their new technique in a summation of their first experiments, *Twenty-four Variations on an Original Theme*.

The next attraction was towards music as a support for the visual material they had uncovered. The first trials were made with a record from an album of Mexican music—a record based on Yaqui Indian themes, but in breaking down this musical composition to its basic organization, in order to build up an equivalent organization in visual material, the brothers found that the music assumed full dictatorship over their work, and they realized the need for music as an originally produced co-partner of the originally produced visuals. In 1942 experiments were begun on sound-producing devices, in search of a way to compose music especially for animated films. At the same time further improvements were made in their technique of optical printing to increase the fluidity of composed movement. By 1943 they had constructed the first successful instrument for recording synthetic sound-track in exact synchronization with animated image, and the paper cut-out and pantograph had been introduced as further creative controls for the image. The medium was about to leave the embryo stage.

Color, too, was ready for more careful inspection—as a more than supplementary element in the development of thematic material, and as an active agent in the temporal structure of each film. Studies were made of the possible use of natural textures and surfaces within the abstract organization. Everything in the world of graphic art tempted them to new trials of the medium—a Picasso collage, a rich color modulation or a purposefully wandering line in a Klee painting.

Their sound recorder had opened another world awaiting exploration. The medium was forcing new thirsts, new needs, upon them. They found themselves in possession of a unique device for producing mechanically wave patterns over a six-octave range of frequencies, but their knowledge of music was inadequate to their device, so they began to repair this lack systematically, studying basic counterpoint with Adolf Weiss. The results of these studies appear in their latest films, where their soundtrack has all the variety and drama of their visual image, producing the audio-visual satisfaction that they have defined as their aim. Ingolf Dahl has pointed out that the Whitney brothers have revealed a rich new vein of musical clay, containing a strikingly original tone-color, and that the brothers are already employing their discovery with a sure and natural rhythmic sense.

The Whitneys should be allowed to conclude this sketch. Here is a clean statement by John Whitney on the relation between their aims and their instruments:

"To study particularly these aspects of the film that combine to produce audio-visual experience had already become one of the basic objectives underlying our concern with the abstract film. At the outset we believed that work with this type of film provides a fundamental discipline for the cinema art. As a study it has a relationship to the medium as a whole that solfeggio or harmony has to music. We have always been less interested, therefore, in inventing new technical processes [an occupation that would place us in direct competition with the extravagantly equipped laboratories of the industry] than in discovering some of the vast unknown esthetic potentialities of the medium.

"Having at our disposal a set of means of sufficient flexibility, that lend themselves favorably to control, our plans are now to achieve a mastery of these means by continued persistent production of films. We believe the problems before us are essentially structural—more a problem of understanding through experience gained by creative work, how elements combine to become inherent thematic material, than merely discovering further sensory effects which new techniques may produce. A wealth of rich sensory effects varying from the rotating distortion mirror to the use of flowing paint, stand available to us when they may be employed as elements within a unified structural whole. We propose to exploit this material as the growth of structure within our control demands."

NEW DEVELOPMENTS

continued from page 55

of the high Government priority given to hospitals, laboratories, dispensaries and other essential public health requirements. New fans of improved design and construction are now in production by the manufacturers who make up the Fan Section of NEMA. Until they are in the hands of dealers for sale, the educational campaign will concentrate on the wise utilization and conservation of the pre-war fans, millions of which have given ten or twenty years' service. The human need for air in motion at all times and in every season is a fact that many physicians, architects, engineers and builders recognize in specifying the use of fans in homes, offices and institutions. Electric fan manufacturers feel that there is a wide field for educational and promotional work directed toward those who think of the fan as merely a comfort device for hot weather. Better home ventilation, faster and more even circulation of heat and saving of fuel, quicker drying of clothes, dissipation of odors, the proper airing of nurseries and sleeping quarters, are only a few of the topics the campaign will cover. The electric fan was the first of all the electric appliances to find popular acceptance. Important advances in design and in such factors as quietness, durability, variety of sizes and types to meet special requirements, have been made since the first electric fan was produced in this country on July 4, 1885. Mr. C. L. Harrison, President of Victor Electric Products, Inc., is the 1946 Chairman of the Fan Section of NEMA. The Merchandising Committee in charge of the program is composed of Walter B. Massenburg, Chairman (Westinghouse Electric Corporation); John Wright (The Emerson Electric Manufacturing Company); George Rafferty (The A. C. Gilbert Company); and Leslie E. Gaut (Victor Electric Products, Inc.). Alexander Hazard Williams and Justin R. Weddell have been retained as public relations counsel to organize and direct the campaign. The new semester of The Institute of Design commences on February 4, 1946. The Institute's headquarters at 1009 North State Street, Chicago 10, Illinois, has been teeming with activity since the school moved to these new quarters in the late summer, where much remodeling has been going on. Many war veterans are taking advantage of the courses offered by the Institute, especially those in Industrial Design, Advertising Arts, Photography and the color and analysis of motion pictures.

WESTINGHOUSE TAKES OVER WESIX LICENSE FOR WESTERN HEATERS

Entry of the Westinghouse Electric Corporation into the field of electric heating for homes, an entirely new activity for the company nationally, was announced here today by Chas. A. Dostal, Vice President in charge of the Pacific Coast District. Manufacturing headquarters will be located at Emeryville, Calif.

Under terms of a license granted by the Wesix Electric Heater Company, San Francisco, Westinghouse has acquired the right to use the basic principles involved in the design, construction and control of unit type electric heaters, according to a joint announcement made by Mr. Dostal and W. Wesley Hicks, President of the Wesix organization.

Volume production of a complete line of newly styled models is expected to get under way soon in the Westinghouse plant at Emeryville, where a large area is being made ready. Stuart L. Forsyth, formerly of Pittsburgh (Pa.), will head the new activity as sales manager for the company's new Home Heating Section.

Models comprising the new line will range from an easily portable 1250-watt, 110-volt floor unit to four-kilowatt, 220-volt floor and wall models. All of the 220-volt units will have built-in automatic thermostatic control. The heaters will be marketed through already established and widespread Westinghouse distributor and dealer channels.

"We expect our major markets will be California, Washington and Oregon," Mr. Forsyth reported. "In these areas, ample power is available at low cost, making electric heating for homes economically feasible."

The company's decision to enter the new field was made only after a detailed study of all methods of electric home heating. Under the direction of Mr. Forsyth, this investigation centered largely in sections of the country where electric heating appeared economically sound and desirable from the standpoints of both the ultimate users and the electric utilities, and where moderate year-round temperatures prevail.

"Thousands of installations already in existence here have demonstrated its economy and desirability," he said. "Electric heat is entirely free of dirt, produces no smoke, fumes or ashes, does not remove oxygen from the air and is subject to simple, immediate control. It is safe, quick and sure."

"Although there are many ways of using electricity for home heating, and research and development work may result in more, we believe that unit heaters offer maximum benefits in the home in many ways. They can be used for auxiliary heating anywhere or for heating entirely by electricity where winters are mild. Desired room temperatures can be maintained automatically by means of built-in thermostatic control."

Normally, a unit heater will be used in each room of a home, but in some climates or at certain periods of the year when temperatures are only mildly cool, one unit will comfortably heat two rooms.

In operation, the unit heater first provides immediate heat by the radiation of infra-red rays, then maintains the desired room temperature by convection—the process which utilizes the normal tendency of cold air to descend and warm air to ascend to form a constant circulation through a heater. Cold air enters at the bottom of the heater and flows upward over both the outside

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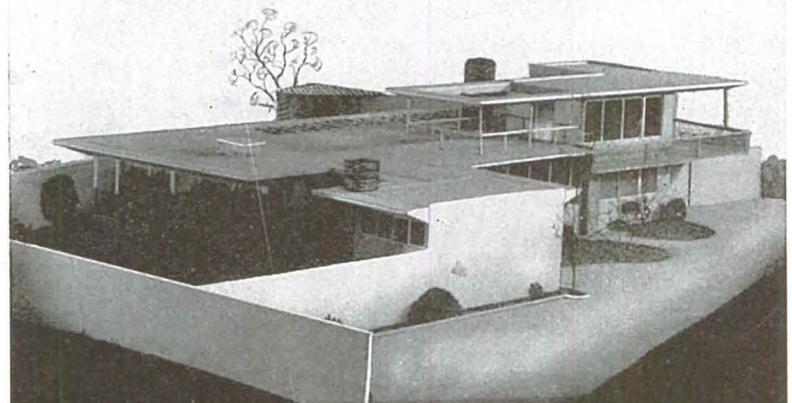
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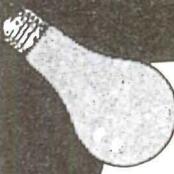
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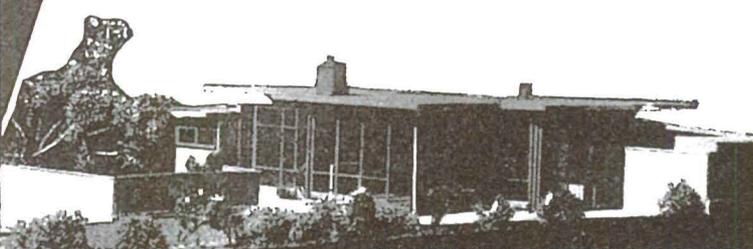
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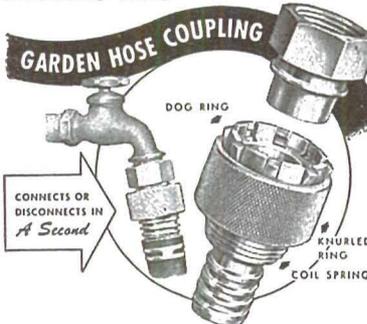
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IMPROVEMENT IN INDUSTRIAL ARCHITECTURE

Unsightly industrial buildings will some day disappear from American communities, and in their place will be found well lighted, brightly keyed and purposefully arranged plants, fully equipped with all considerations of safety and convenience for management and personnel.

That is the conclusion reached in an analysis of the findings of a recent survey conducted by Mill and Factory in collaboration with the *Architectural Record* among work managers, production superintendents, maintenance engineers, and personnel directors of twenty-three industrial plants built or planned since 1937. The interpretation of the survey findings was made by Albert Kahn Associated Architects and Engineers, Inc., of Detroit, who are prominent in the field of industrial architecture, and is contained in the current issue of *Architectural Record*.

"Greater efficiency, pride and loyalty are all furthered by the creation of pleasant work surroundings," the Kahn firm members declare. "No costly embellishment or arty sentiment is required to achieve these objectives."

In analyzing general considerations in design of industrial buildings they point out that in some instances the physical plant set in landscaped surroundings has been made a show place and a calculated element in the public relations program. And even where this is not the aim, community pride is maintained by a plant that is an asset.

The authors review advances in factory design, with special emphasis on access and parking, employee facilities and circulation, personnel feeding, first aid and health, heating and ventilating, lighting for work, shipping and receiving.

FACTORY-FITTED STEEL WINDOW "PACKAGE"

The new factory fitted, three-way residential window "package" which includes steel casement, storm sash, and screen is announced by Detroit Steel Products Co. of Detroit, makers of steel casement windows and other building products. Glass, wood casing, outside trim, and hardware are provided as part of the package.

Complete installation takes minutes rather than hours. The factory-fitted steel casement provides more daylight, as a result of the narrow frames and muntins that allow more glass area. Better ventilation is provided by steel casements that swing out wide, and catch the breezes from any of three directions. Steel

frames and ventilators are bonderized for protection against rust, dip-painted in a special primer, and oven-baked. Vents always operate easily—in all seasons—and being of steel won't warp, swell, shrink, stick, bind, or splinter.

The factory-fitted storm sash is easily installed from the inside; opens in unison with the casement window, providing unrestricted ventilation. The labor and nuisance of taking down and storing storm sash is done away with, for storm sash may be left on the year 'round providing extra insulation against heat and dust in summer, and effectively insulating against cold and condensation in winter. All glass surfaces inside and outside are easily accessible from the inside for washing.

Screens, too, are factory fitted. They may be attached in a jiffy, safely, from the inside. They are protected from weather, stay clean, and last a lifetime. Fenestra screens need not be removed in winter—but those who prefer to remove them will find that these screens are interchangeable, and therefore need not be marked or numbered.

Fenestra's new three way residential package will be displayed, along with other Fenestra building products, at the coming annual convention, February 25th-28th, of the National Association of Home Builders at the Stevens Hotel, Chicago.

INSTITUTE OF DESIGN NEW SEMESTER

The new semester of The Institute of Design commences on February 4, 1946. The Institute's headquarters at 1009 North State Street, Chicago 10, Illinois, has been teeming with activity since the school moved to these new quarters in the late summer, where much remodeling has been going on. Many war veterans are taking advantage of the courses offered by the Institute, especially those in Industrial Design, Advertising Arts, Photography and the color and analysis of motion pictures.

ART

continued from page 18

space. McCray has developed the use of angular lines within his composition and has achieved a more delicate and less austere aspect. An ingenious extension of the major lines of the canvas is carried out through the use of wood strips in a designed grill framing. This ingenious incorporation of the frame in the composition is again demonstrated in another pure abstraction, *Composition No. 2*, by B. J. Bolter, in which the artist continues certain lines of his arrangement on the flat surface of the frame and also frames a small section of his canvas with an inner frame. The idea does not seem to be fully realized in Bolter's canvas but it suggests interesting possibilities. Other inventive abstractions are Zoray Andrus' *Quadrilateral Composition* (oil) in which the artist combines rectangular patches of sandy plaster with related rectangles of color, and *Orpheus*, by Hal Goldman, who floats his painting surface in a box frame and cuts openings, in the forward (painting) surface, which are used in various ways. For instance, wire may be strung across one opening while another is used to frame a color area on the disclosed rear surface. (The artist calls this kind of treatment an "oil-fenestragraph".)

Edgar Taylor's *Strange Afternoon* (oil), a fine composition in grayed whites, browns, and greens with suggested figures—in a style that might be described as imaginative realism—won the Museum Purchase Prize from an Anonymous Donor. The S.F.A.A. Emanuel Walter Fund Purchase Prize was awarded Jeanne Reynal for her abstract mosaic, *Affinities of Nature*—well deserved recognition for work that has been consistently outstanding through several Annuals. The William L. Gerstle Prize went to Felix Ruvolo for his simply conceived and highly successful use of primary red, blue, and yellow against a dark background in *Night and Figures*. Luke Gibney won the Anna Elizabeth Klumpke Prize for his oil portrait *Dolores*. Honorable Mentions went to Mine Okubo for *Strike* (tempera), to Ellwood Graham for *Pavane* (oil), and to Rex B. Mason for *Poetess* (tempera), this last another of those inventive departures—here the artist strings wire across the surface of his compositions.

Almost all of the sculpture entries have abandoned straightforward realism for more imaginative approaches. The one major exception to this is *Fat Man*, a plaster figure by Tryphon Nichols who displays a unique gift for subtle caricature in three dimensions. The Edgar Walter Memorial Prize for Sculpture was awarded to a newcomer, Blanche Sherwood, for *Mother and Child*, an abstract in plaster. Adaline Kent, one of the regulars who has been edging away from realism for the past few years, has finally broken away completely in her composition *Dark Mountains* which was awarded an Honorable Mention. *Water Bird* (fire clay) by John Rechab Baxter, was awarded the other Honorable Mention in sculpture.—SQUIRE KNOWLES.

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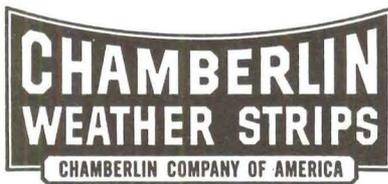
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BOOKS

continued from page 23

considered in the light of the author's system of criticism which ignores "any standard of judgment outside the personality of the artist." This becomes an objective standard "if we know how to interpret and understand him."

Various art movements are given consideration. "Neo-classicism, romanticism, realism, impressionism are trends of taste. In each one, real artists created works of art, but no trend in itself was ever directly responsible for the creation of art."

The text is not stuffy art talk, and this art authority modestly acknowledges his inability to produce a ready definition of art. His broad view allows him to state that the only absolute in art is the personality of the artist and all the rest—subject, media, technique—are relative to that.

"There is no rule and there can be none for a creative painter. Each painter, if he is a real artist, creates his own rule, which is good for him, but which is generally bad for all other painters."

"To learn, and know, how to look at a painting does not mean to be bound by any rule, but to be free of all rules."

This book will reward the reader.—LAWRENCE E. MAWN, A.I.A.

MUSIC

continued from page 26

defeated Italian soldiers to their native village and loved ones. War music of exceptional dramatic intensity adds to the powerful impact of another topical film, *The True Glory* (OWI-WAC), a full-length record of the Normandy invasion and the subsequent battle of Germany. William Alwyn, the British composer who also scored an earlier, equally powerful documentary, *Desert Victory*, (El Alamein), here succeeds in pointing up the climaxes and binding up the many disconnected battle episodes by means of music.

Two of the best among recent films deal with victims of amnesia: *Love Letters* (Paramount), with Jennifer Jones and Joseph Cotten; and *Spellbound* (Selznick-International), with Ingrid Bergman and Gregory Peck. Victor Young's background music for the psychic regeneration of that distinctive actress, Miss Jones, and Miklos Rozsa's score for the similar cure of Mr. Peck both interpret the shifting moods of their films—suspense, fear, love, mystery—so well that one is almost unaware of music as a separate element, and perceives only the integrated whole. That music also can strike terror into the hearts of an audience is evident from the scene in *Spellbound*, during which Peck looks about him furtively, with maniacal intent, and Rozsa's dissonant music, *Fortissimo*, suddenly breaks the silence to lift the spectators from their seats.—WALTER H. RUBSAMEN.

CREATIVE LIFE IN BERLIN

continued from page 32

ically acceptable. The licensing of German film producers will be a long and difficult process, for these men must be given support in terms of film materials and the facilities for distributing their efforts in all four Zones. Before any of the Allies will give support and promise distribution of what the German producer makes, they will be sure that their film man is not only a man of ideas, but a man of right ideas. It is too early to expect that the Germans can look back upon their immediate history, from 1933 to the present,

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and view it with any sort of historical objectivity. As a result themes about the war, concentration camps, German guilt, and responsibility, a new and better world, will not be forthcoming for some time. It took ten years for an Erich Remarque to write *All Quiet on the Western Front*, and about as long after World War I for Pabst to direct *Kameradschaft*. German people who are flocking to motion picture theaters in the four Sectors of Occupation in Berlin, and in the rest of Germany, for that matter, are looking for entertainment and entertainment films. They're wild for *You Were Never Lovelier*, and they seem to stay away from that excellent film, *Abe Lincoln in Illinois*. As the manager of one theater, showing the film version of the Robert Sherwood play, stated, "The young people of Germany have never heard of Abraham Lincoln; and older ones don't seem to remember him." On the other hand, there is some encouragement in the fact that the Germans like *The Human Comedy*, and for the very reasons that American audiences liked it: for its naturalness, sincerity, and simplicity.

But those who are working with the Germans, the men in various Information Control units with posts all over Germany, are not being overwhelmed or fooled by the flapping and splashing and gyrations and activity. There is an encouraging amount of honest work being done; but if the Allies were to suddenly withdraw their support and aid tomorrow morning this German "renaissance" would collapse. The German people are trying desperately to evolve something worthwhile, but they don't know how. Their interest in politics is synthetic; their apathy in their own political future is appalling. They have lost the know-how for doing simple things, and they are not beneath depending on the Americans, the British, the Russians, and the French to supply them with everything from violin strings to spirit. As one wise and honest German said to the writer, "Right now we ask to be fed before we're willing to rehabilitate ourselves; and I suppose if our stomachs were full and our houses warm, then we'd be telling you how basic German culture is to every other."

Army authorities have described German occupation as a fifty year assignment: occupation of land as well as spirit.

APPROACH TO SPACE

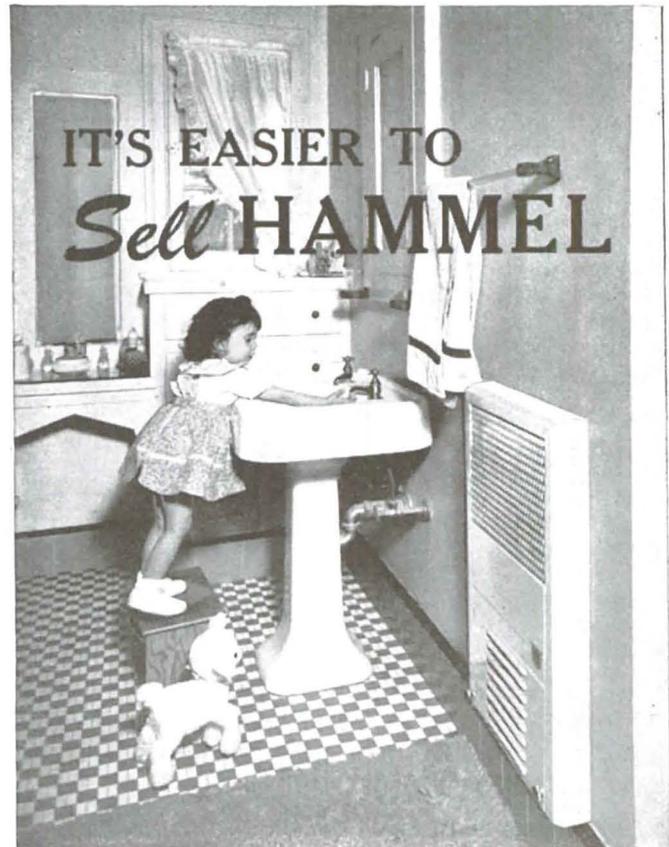
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to spatial organization in the dance.

The movies illustrate perhaps more clearly than any of the arts the contemporary approach to space. Entirely a product of modern times and the development of a four dimensional concept, the movie is the most popular of the arts largely because it more closely coincides with modern experience, which the art of the past fails to do, and modern painting, sculpture, and architecture still seem unable to do because of lack of familiarity on the part of the general public. Since the movie is so new a form of art expression, with no traditional prejudices from the past to combat, it has had little to impede rapid development. In spite of this, however, it has not yet realized its potential power as a form of art expression, nor the implication of its content. Here again the basic problem is the organization of space from a variable point of reference rather than from the static, fixed point of reference of the proscenium arch.

All the technical devices of the movies increase the movability or variability of the point of reference. Double exposures, montages, close-ups, slow motion, fast motion, and the moving crane are some of the many devices for varying time-space relationships. When the movie camera becomes fixed or static the result is a very dull movie. Limitations of time cease to exist in the movies. Past, present, or future can be presented simultaneously or in any combination. The entire life of a flower from seed to withered stalk can be presented in a few seconds. Conscious reality and the imaginings of the subconscious mind can be presented at the same time. A whole new field for exploration and

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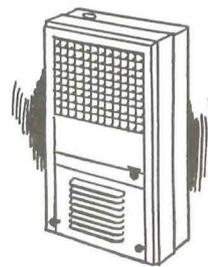
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APPROACH TO SPACE

continued from page 61

development for expressive purposes of the abstract has been opened up. In this art form, at least, the new concept of time-space and reality is illustrated in such simple, obvious terms that it is accepted without question, even without realization of the implications involved.

As every individual is profoundly affected by the rhythm of the life around him and is forced to adjust himself to it, so contemporary art is the artist's adjustment to his environment and to contemporary life. Being especially sensitive to the rhythms of nature the artist is often first to sense the change of rhythm of life around him and first to adapt himself to it. As the painter approaches his particular problems of organizing pictorial space from the variable point of reference, so every man must approach the complicated problems of contemporary life from a more variable and dynamic point of reference rather than the fixed static point of reference of previous prejudices. Every change of direction of the human spirit is opposed by a corresponding reaction against it. The resulting struggle between the fixed and the variable approaches to reality is the outstanding characteristic of the present phase of development of human history, visible in all fields of human activity.

Each stage of development demands a long period of consolidation, which should in turn lead naturally to further development. Once the period of consolidation is past the danger lies in repressing too long the natural growth to the next stage. Each stage of development makes certain real gains that are of permanent value. But it also overlooks many things and contains much material that is not only temporary but also false. The confusion in the present phase of development is caused by the excessive amount of dead material left over from the past which obstructs the path to the future. Loss of standards and order do not occur because a more inclusive order replaces a more limited one but rather because the more limited order suppresses the natural development of the new.

ADVENTURE IN EDUCATION

continued from page 42

Where and how can we begin? Children reflect our basic attitudes and mirror directly or indirectly the disturbances in human relationships conditioned by our culture. As adults and parents we must first examine our own standards and values and set them straight. "One cannot live like a hog and have the skin of an angel." We must build a new kind of experience for our children if we face the reality of our day. Our children are certainly to be in the midst of, or on the fringes of conflicts where racial misunderstandings are involved. We must equip them to meet these experiences as persons

who can move from group to differing group with understanding and with dignity. If we fail to give them these basic skills we condemn them to prejudice, ignorance and hate. Surely we do not *choose* to cripple our children in this way?

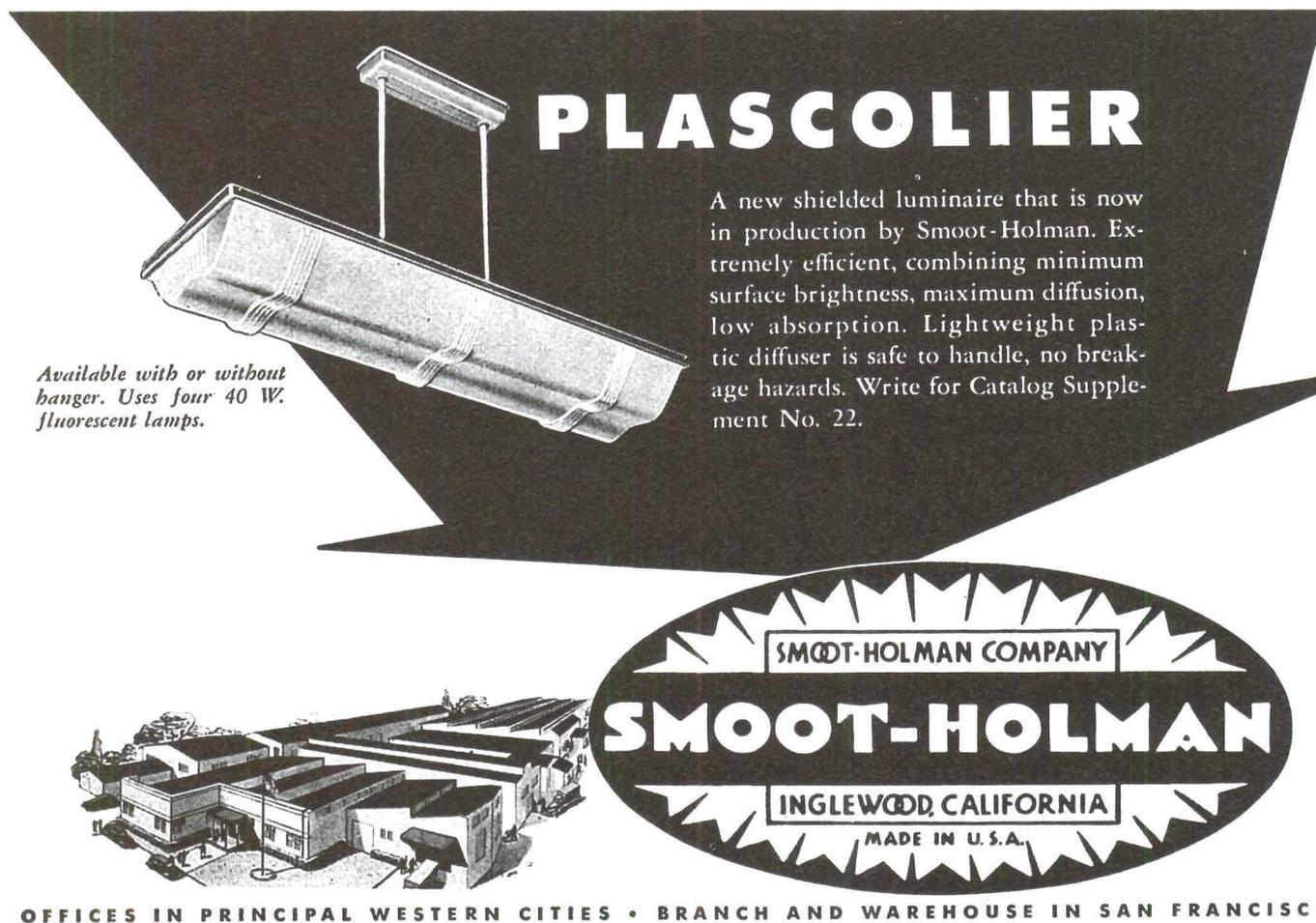
Return again to the basic question—What can we do? If the child "learns meanings and develops understandings through concrete experiences," then it is clear that from the earliest years, school and home must give him wholesome experiences which bridge the gap of differences between racial and cultural groups. The *normal, everyday processes* are where these experiences must begin. The nursery school child must learn to take turns with his toys and play equipment with Judson who is black, with Susan who is brown, with Sarah who has an oriental face—and to take turns because they are people, and not because they are "different." If the nursery school child learns to "stand up for his own rights" under the balanced, loving, controlled atmosphere of a good school, he will learn to do this with Judson, and with Susan, and with Sarah because "that is what we do at nursery school" and not because they are "different."

A good nursery school program should help a child to control his desires, "not hurting even when you wish to hurt." If our youngster will remember this in his play with Ramon, whose grandfather came from Mexico, and react to it because he has learned how to redirect his boundless energy and deep feelings, he will not respond to Ramon because he is a Mexican-American, but because he has come to know him as one of his group.

A good nursery school helps children appreciate the talents and efforts of all the children in the group. Johnny may be adept at block building and Sally at painting, but each has his place, each belongs, and each one knows he is wanted and needed. If children of differing racial and cultural backgrounds have these experiences together in their *ordinary school day*, they will be building attitudes that will help them to understand in later years that they can live together harmoniously even if Johnny's family goes to the synagogue, and Sally's to the cathedral.

If our school life and experience for all our children at each age level would carry this pattern forward, we would find our graduate seminars on *race* changing character and tone—perhaps becoming unnecessary—perhaps freeing our scholars to move in new and fresh directions, so that we might truly say with Walt Whitman:

"Each of us inevitable;
Each of us limitless—each of us with his or her right upon the earth;
Each of us allow'd the eternal purports of the earth;
Each of us here as divinely as any is here."



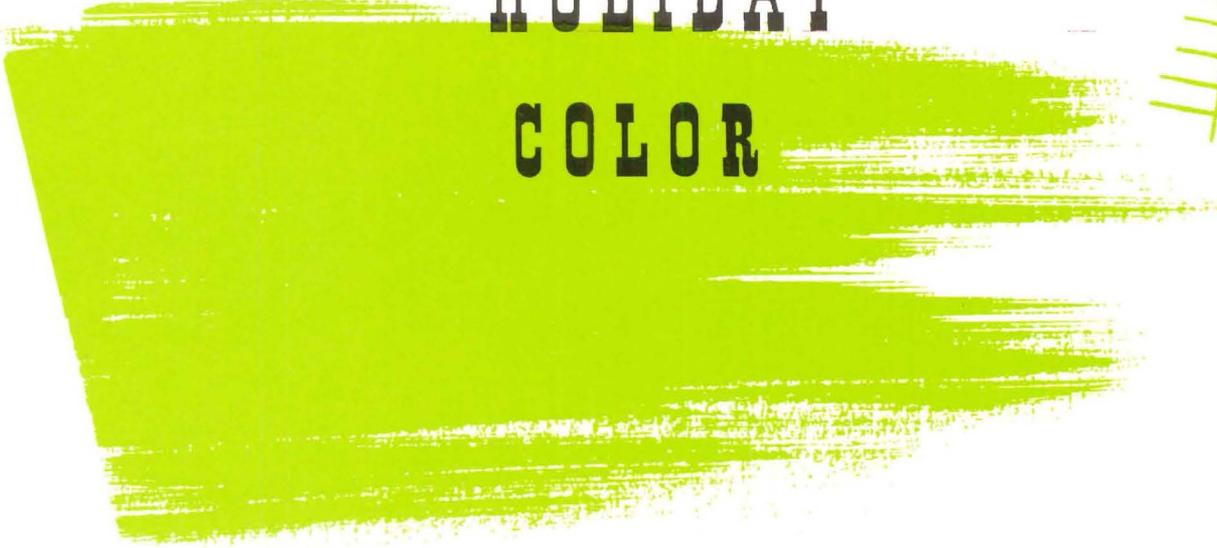
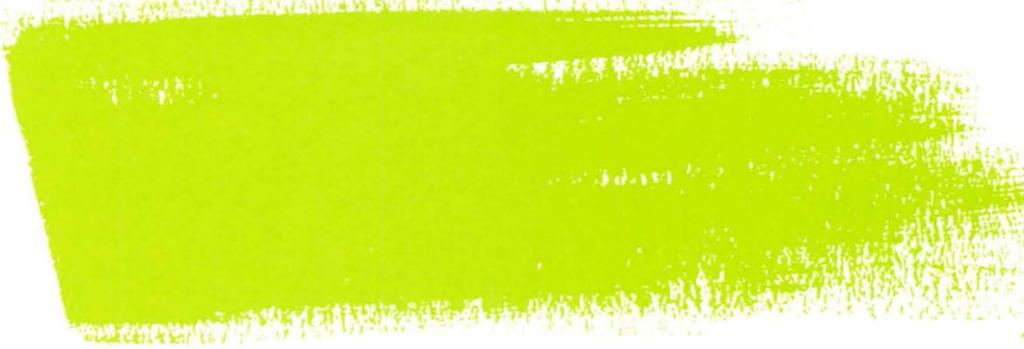
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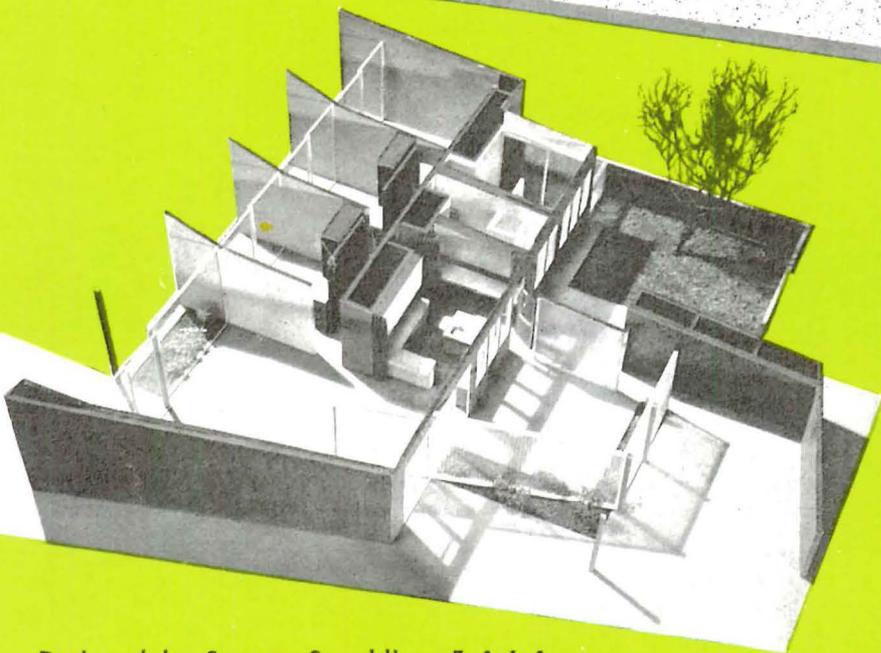
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