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CONTENTS FOR FEBRUARY 1953

ARTICLES

Bernard Rosenthal, Sculptor 16

An Experiment in Correlation by Felix Marti Ibañez, Part II 18

How to Plan the Home Entertainment Center by Alfred Leonard 33

ARCHITECTURE

Marcel Breuer—A Project and a Reality 20

House in Australia by Harry Seidler, Architect 24

Prefabricated Vacation House by Campbell and Wong 26

Hillside House by Robert B. Marquis 28

Case Study House by Craig Ellwood 30

Small House by Greta Magnusson Grossman 32

SPECIAL FEATURES

Music 8

Notes in Passing 15

Currently Available Product Literature and Information 11

Case Study House Merit Specifications 34
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When Stravinsky's biography comes to be written in detail—I hope it will make as good, irritating reading as his autobiography—a chapter in it should be devoted to the condescension and ignominy he was forced to endure, at the summit of his genius, in finding an organization willing to produce his opera The Rake's Progress and pay him for it. All that is under the bridge, you may say: The Rake was a hit at the Venice Festival in 1951; it has been performed all over Europe; it is being discovered at the Met; it will be nationally televised. Stravinsky's reputation is greater than ever. But suppose that somewhere along the line he had simply said, the hell with it!

Well, you reply, speaking for Polonius, who was a man of sound judgment, loved by his son and daughter, until Hamlet got under his skin: What of it! If a composer doesn't believe in his music strongly enough to fight for it, to insist on getting it before the public despite all impediments, his stuff probably isn't worth the effort.

To which I can only reply in the hearing of sound businessmen that a first performance of The Rake's Progress might have enabled this city to compete for once in the music festival racket, with results in publicity that should have justified any reasonable expenditure by the Chamber of Commerce. Look what was done in Pittsburgh by putting on a bold front and announcing as the choice of 62 chosen experts an irrelevant collection of contemporary pieces of no particular vintage. Our Los Angeles Junior Chamber of Commerce established the light opera season in this city. Could they not have done so much, just the once, for our neighbor Stravinsky? If we haven't the operatic machinery ourselves, we could have invited the San Francisco Opera to do the job for us. They should have thought of it first.

As a matter of fact we do have the machinery, but we make nothing of it, while we go on dreaming of what we may some day buy for much money. Our present machinery produces the young singers, probably more major singers during recent years than any other city has produced, and year after year the singers we bring to gear readiness go away after Nadine Connor, Jerome Hines, Nan Merriman, George London to New York and Vienna. Suppose we were to bring all of them back together for one gala performance! There would be enough of them for a performance of The Rake's Progress.

We need to do a little more boasting of the culture that we have, if only to make ourselves believe in it. Perhaps it would be a good thing for our civic leaders to find out about it. We could remind the ladies and gentlemen whose names show up in the papers at the beginning of each orchestra and opera season (borrowed opera) that the hit of the 1950 Venice Festival was a little cantata, A Survivor of Warsaw, by the late Arnold Schoenberg, also a local resident, which had its first performance in Albuquerque instead of Los Angeles. It has been heard all over Europe and in England but not here, not yet. (The Philharmonic played Verklaerte Nacht again this season. But let me congratulate the orchestra and Alfred Wallenstein on a successful performance of Ernst Toch's new symphony). A year before that we lost to Milan the first performance of Stravinsky's Mass.

Having failed of the opera, the cantata, and the Mass, we regained lately a small portion of the self-respect we seem not to have known that we had lost, when the Los Angeles Chamber Symphony bought up the first performance of two new Stravinsky compositions, an enlarged version for 12 instruments of the Concertino for string quartet, written in 1920, and a new Cantata for solo soprano, solo tenor, instrumental quintet, and small women's chorus. The composer himself conducted them at a concert of his music presented by the Chamber Symphony on November eleventh.

It's a dangerous affair, offering the first performance of a new major work by a composer who thinks. Very often he thinks in music, and the first performance stumbles into public surprise with a dull, intellectual thud. Even musical people who should know better have been heard to condemn an unexpected major compo-
sition because it made an initial demand on their intelligence.

What else would distinguish an important work of musical art than that it should be unexpected and demand thought?

Some, it may be, prefer enviously to recognize a failure whenever the audience does not answer with an uproar, being at the same time prepared to describe as superficial whatever the crowd cheers. The majority bring to the new production a discursive memory of the same composer’s works now well established, written twenty or thirty years back. A composer who has held leadership before the public as long as Stravinsky will be idolized and run down for complementary reasons by the same sort of people, with very little regard for the facts of his creative development. His youthful exuberance is brought for an example to criticise his mature restraint.

Sufficient unto every season are the Carmens thereof. Yet Carmen, too, was unexpected and caused an esthetic convulsion of European intellects that still echoes in the history books. It is easier to adjust to a single Sacre or Carmen than to the developing creative realities of a career lasting more than forty years.

Sometimes, especially in listening to music, the first impact of a performance is less than the memory of it. This was my own experience of Stravinsky’s Cantata. If I had been wiser, I would have gone to a rehearsal. Then, at a second encounter, knowing what to expect, I might have heard more of the music. Or it may be that I should not have kept the words before my nose. I am not sure that following the text or following a score adds to one’s ability to comprehend unknown music. Afterwards, this may be beneficial. If my ears had been busier than my eyes, I might have been less put off because the verbal melodies of these late middle-English poems were sounded in flat, unrhymic modern pronunciation, disregarding the altered vowel tones and, for example, the final “e” in “alle.”

The text of the Cantata consists of A Lyke-Wake Dirge (the same used by Benjamin Britten in his fine piece for tenor, horn, and orchestra), rendered by women’s chorus; among the stanzas of which are interspersed The Maiden Came, for mezzo-soprano, Tomorrow Shall Be My Dancing Day, given with embellishment and a complicated accompaniment to a tenor, and Westron Winde, to a dramatic outcry of the instruments, with obligato duet for tenor and soprano. The instruments are a quintet of 2 flutes, 2 oboes (the second interchangeable with English horn), and cello.

Stravinsky carefully explains, in his own program notes, that “three of the poems are semi-sacred. The fourth, ‘Westron Winde,’ is a love lyric.”

("... Crist, if my love were in my armis,
And I in my bed againe."")

“’The CANTATA is, therefore, secular.”’ I think listeners will do well to disregard this qualification and think of the whole Cantata as a religious meditation upon various aspects of human experience between life and death. As such, the poems do not qualify one another but simply co-exist:

“This ae nighte, this ae nighte,
—Every nighte and alle,
Fire and sleet and candle-light,
And Criste receive thy saule.”

The effect is of a litany rather than a dirge.

Some complained because one stanza of the tenor solo tells of the crucifixion of Jesus by the Jews, “Because they lov’d darkness rather than light.” I believe that we have hunted anti-semitism far enough through the poems of T. S. Eliot and Ezra Pound without holding it up for abhorrence in the words of a sixteenth century Anonymous. These are great times for making assumptions about other men’s opinions. The statement is, nonetheless, the basis of all so-called religious or ethical anti-semitism.

(I wonder whether we remark often enough the absence of any such disparaging religious or racial reference in the Passions of Bach. Bach directs divine irony at the social organism, but it is Everyman’s social organism.)

The stanza does jar, and I should be happier to see it altered to characterize the nature of the persecutors rather than their race. As, “The false on me they made great suit...” Stravinsky is not editing a text for scholars. When Ives set to music Vachel
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CURRENTLY AVAILABLE PRODUCT LITERATURE AND INFORMATION

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• (956) Indoor Incinerator: Information, incinerator unit for convenient disposal of combustible refuse, wrappings, papers, garbage, trash; gas fired, unit disposal combustible refuse. It has capacity of two bushels; heavy steel plate combustion chamber; AGC approved; excellent product, merit specified CSHouse 1952.—Incineration Division, Bower, Inc., Cairo, Ill.

• (123a) Gas Ranges, Colored Tops: Illustrated color folder describing new 1951 Western-Holly gas ranges with pastel colored tops; tops available in pastel green, blue yellow, lifetime porcelain enamel to avoid over-emphasis on color; other features include top-burners, enamel to which acid-resistant glass-porcelain is permanently bonded; cabinets cold-rolled furniture steel, solidly spot-welded; finish inside and out baked-on synthetic enamel; flush door, drawer fronts, semi-concealed hinges; rubber bumpers on doors, drawers; exceptionally quiet operation; includes crumb-cup strainer or Consume-away food disposer unit; this equipment definitely worth close study, consideration; merit specified CSHouse 1952.—Western Holly Appliance Company, Inc., Culver City, California.

• (365) Kitchen Appliances: Brochures, folders complete line Sunbeam Mixmasters, Wallmaster, Ironmasters, Toasters, Shavermas ters; recent changes in design well illustrated.—Sunbeam Corporation, Roosevelt Road and Central Avenue, Chicago 50, III.

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• (124a) All-Steel Kitchens: Complete information, specification details, planning data Shirley all-steel kitchens: quality units, good contemporary design, excellent engineering; produced in standard series of individual matched units; sinks formed from deep-drawing 14-gauge porcelain-on-enameled to which acid-resistant glass-porcelain is permanently bonded; cabinets cold-rolled furniture steel, solidly spot-welded; finish inside and out, baked-on synthetic enamel; flush door, drawer fronts, semi-concealed hinges; rubber bumpers on doors, drawers; exceptionally quiet operation; includes crumb-cup strainer or Consume-away food disposer unit; this equipment definitely worth close study, consideration; merit specified CSHouse 1952.—Shirley Corporation, Indianapolis 2, Indiana.

DECORATIVE ACCESSORIES
• (137a) Contemporary Architectural Pottery: Information, illustrative matter excellent line of contemporary architectural pottery designed by John Follis and Rex Goode; large man-high pots, bread and flat garden pots; mounted on variety of black iron tripod stands; clean, strong designs; data belongs in all files.—Architectural Pottery, 3502 Meier Street, Venice, California.

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

(145a) Antiques and Decorative Accessories: Information excellent collection carefully chosen antique decorative accessories; all pieces reflect quality, good taste; good source for the trade.—Charles Hamilton, 18 East Fiftieth Street, New York 22, N. Y.

(176a) Wire Sculpture: Information on complete line of wire sculpture wall pieces in three dimensions. Ten distinctively different designs for walls, fireplaces, bases for sculpture, and as column decorations. 12028 Guerin Street, Studio City, California.

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

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


(181a) Baker Modern Furniture: Information complete line new contemporary furniture designed by Finn Juhl, tables cabinets, upholstered pieces, chairs; represents new concept in modern furniture; fine detail and soft, flowing lines combined with practical approach to service and comfort; shelf and cabinet wall units permit exceptional flexibility in arrangement and usage; various sections may be combined for specific needs; cabinet units have wood or glass doors; shelves and trays can be ordered in any combination; free standing units afford maximum storage; woods are English hardwood, American walnut, white rock maple in contrasting colors—almost true white and deep brown; most pieces also available in all walnut; special finish preserves natural finish of wood and provides protection against wear and exposure to moisture; excellent service; well worth investigation.—Rugcrofters, Inc., 143 Madison Avenue, New York 16, N. Y.

FABRICS

(171a) Contemporary Fabrics: Information on best lines contemporary fabrics by pioneer designer Angelo Testa. Includes hand prints on cotton and sheers, woven designs and correlated woven solids. Custom printing offers special colors and individual fabrics. Large and small scaled patterns plus a variety of desirable textures furnish the answer to all your fabric needs; reasonably priced. Angelo Testa & Company, 49 East Ontario Street, Chicago 11, Illinois.

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(175a) Furniture in Kit Form: Information well designed contemporary string, tape chairs in unfinished knocked-down kits ready for assembly; also tables; available by mail order at very reasonable prices; also prefabricated at slightly higher prices; well worth investigation.—Callbox Furniture Company, Post Office Box 215, San Gabriel, Calif.

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(85a) Contemporary Furniture, Daybed: Information new retail outlet good
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(15a) Swedish Modern: Information clean, well designed line of Swedish modern furniture; one of best sources.—Swedish Modern, Inc., 675 Fifth Avenue, New York 22, N.Y.

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Artists always dislike a lack of precision. The artist has to take hold of an idea and translate it into something concrete—a picture, a statue, a symphony or a poem.

Those who met in Venice at the end of September for the International Conference of Artists organized under Unesco auspices displayed this characteristic of their calling when they discussed the problems of freedom without for a moment dwelling on theoretical considerations regarding the concepts of freedom or rights.

There were nearly 300 of them from 44 countries. The questions they asked and to which they sought to give unanimous answers were:

What are the requirements for free creative work?
What conditions make it possible, and what is the price that may possibly have to be paid for them?
How can the real message of a work of art be brought home to men and women?
How can the integrity of a work be defended against the enemies of art, who are usually the enemies of freedom as well?
How, finally, can artists play a useful part in Unesco's work to secure these ends?

These are practical questions, questions whose solution involves technical considerations and sometimes economics. The painter knows that he may work as he pleases—provided he has enough to live on. But he wishes his painting to live for others and, if possible, for all the world; so do sculptors and architects.

All three dream of working together and welding their various arts into that unity which gave the world the Greek temple, the medieval church and the Renaissance palace. After long years apart, they desire not merely association but union, and recognize that union is impossible without State support, public understanding and the international patronage of cultural organizations.

But what of independence? If all artists in their separate spheres look to the public authorities for tax exemptions, help and subsidies, what becomes of the independence which they are usually so swift to defend?

Not for one moment during the conference did they seek to conceal this apparent contradiction. In their view, a world without art is unthinkable, so that it seems perfectly natural to them that the public authorities should give help to art, to which they themselves have devoted their lives. If it is suggested that the authorities in question might regard such help as a pretext for control or direction, the artist will ask: "On what grounds? I am not asking for charity; I claim your help in the name of freedom itself."

The conference therefore called on all States to "desist from imposing censorship in any form upon the products of the mind, to refrain from restricting freedom or compromising the position of the creative artist, to recognize no obstacles to the free movement of works of art."

There was no talk of rights for artists as the privilege of a chosen few. On the contrary, the Declaration of Human Rights seemed to be naturally and necessarily invoked.

At the end of its last meeting, the Conference adopted enthusiastically a resolution, submitted on behalf of the Italian and French delegations by Guido Piovene and Jules Romain, which declared: "Respect for the dignity of the individual is the prerequisite for any form of creative activity. These fundamental requirements are of universal application and are part of the body of Human Rights, which it is the duty of artists to help in safeguarding."

A whole series of resolutions dealing with sociological, legal and educational problems, and with the life of the arts, are addressed directly to Unesco, soliciting the Organization's services and offering to share its responsibilities. One of the most important decisions from this point of view was that to establish an International Association for the Plastic Arts, which is to form another link in the chain of international cooperating bodies, and which Unesco is to sponsor and organize in the first stage of its development.

The Conference showed clearly the readiness of artists to collaborate with an Organization, one of whose main aims is to uphold the right of everyone to a share in cultural life.

This right is commonly regarded as a remote ideal. But it is obvious that such an ideal can have no more fervent champions than those who are not merely the representatives, but the artisans of culture, and in whose hands its development lies.

Le Corbusier spoke of the need for combining "all the arts which express man's emotions—music, drama, the ballet, literature and . . . the film—all the embodiments of a poetry..."
Sculpture has been traditionally the most implacably anthropomorphic of all the arts, the sculptor the most restricted in subject matter of all artists. Nearly all the great sculptors in the history of western art have been men with sufficient force of imagination and developed skill to mold new and unique images from the small vocabulary allowed them. They occur infrequently and between their appearances sculpture descends to levels of utter banality.

Our generation has witnessed a reviving interest in sculpture marked by as wide departures from tradition as in the more familiar evolutions and revolutions compounded by twentieth century painters, architects and musicians. The contemporary sculptor, responding to the vast range of new discoveries in science and technology, has not been content to preoccupy himself with further rehashing of the problems of a solid in empty space, that solid being usually a human figure. He is aware that space is neither empty nor simple. He has become a space explorer, vastly excited by the complex relations and echoes by which space makes itself manifest when interpenetrated by solid forms. He need no longer represent astronomy in the guise of a naked lady dangling a starfish from a disdainful hand.
AN EXPERIMENT IN CORRELATION

PART 2

THE PSYCHODYNAMICS OF MODERN ART

By FELIX MARTI IBAÑEZ, M.D.

Resume of Part 1: The year 1900 marks the beginning of a crisis in the conception of the universe. The new atomic science, Einsteinian physics, the quantum theory of Planck, the new astronomy, and modern mathematics, as well as ultramicroscopic biology, have revolutionized the concepts of classical physics. The new picture of the universe; the acceptance of finite space, the identity of matter and energy; and the idea of the relativity of time and its continuity in space, have caused a crisis in man's concept of the world around him and of himself.

A. Interrelations of scientific and artistic thought

One of the characteristics of modern psychology is the broadening of its field of action so that it can be applied to a better understanding of human experience and conduct. In the ninety-some odd years which have transpired since its birth as the stepdaughter of philosophy and physiology, psychology has become wide enough to embrace problems as varied as the neurohumoral mechanism for transmission of the nervous impulse and the determining factors of man's desire to understand the universe. (12)

Like the new physics, modern psychology is a science of relationships. For that reason, we consider as worthy of study the interrelation between atomic science and modern art, both genuinely representative manifestations of the spirit of our age.

All through history scientific truth has influenced artistic thought, and vice-versa. The artist does not, of necessity, deliberately reflect scientific truth in his art, but if the climate of an age is saturated with new ideas, the artist—the most sensitive barometer there is—reflects those ideas in his work. Here we cannot help recalling the wise dictum of Zola: "L'Art c'est la Nature vue par un tempérament." This temperament of the artist is subject to the influence of anything that happens on the horizon of his time. To evoke the scientific revolution of our century and its psychological impact on the artist is to point out facts which have passed unperceived and may shed new significance on ideological tendencies, thus influencing the course of the artist's future activity.

When we undertake to establish the impact of scientific atomism on modern art, we are attempting to anticipate to a certain extent the interpretations of the historians of the future, when the perspective of our time will be more serene.

Just as physics and mathematics in the seventeenth and eighteenth centuries helped to discover the circulation of the blood and respiratory physiology, so scientific progress in the nineteenth century has had widespread cultural repercussions. In 1865, Claude Bernard in his "Introduction a l'étude de la Médecine Expérimenterale" formulated the principles of a new medical science, which was considered a positive science based on reason and the experimental method. His lectures and experiments at the College de France attracted physiologists, chemists like Berthelot, philosophers like Janet, historians like Renan. At the same time, the clinical lectures of Trousseau, and later those of Charcot at La Salpetrière, were attracting numerous writers, philosophers, historians and artists.

The repercussions were disconcerting. Renan asserted that history was a science like chemistry; Taine affirmed that vice and virtue were chemical products like vitriol and sugar and, inspired by Claude Bernard, he formulated his deterministic theory of heredity and environment; Victor Hugo declared in 1859 that the mission of the poet and philosopher was to try to treat social problems as the naturalist treated zoological problems; Flaubert affirmed that the novel should be scientific. These influences gave rise to novels which were real clinical histories, like those of the Goncourt brothers and Emile Zola, just as later on Freud and psychoanalysis were responsible for the psychological novel, which is still the most widely read literature of our day.

B. The artist and his times

For the artist, as for any other man, to live is to accomplish a multidimensional task of experiencing life from without and giving free play to his own spontaneity. The artist is above all a man subject to a double series of biological stimuli, proceeding both from his milieu and his own inner mechanism for transmission of the nervous impulse and the determining factors of man's desire to understand the universe. (12)

Ortega y Gasset has spoken of man's double dimension: his historical dimension (his heredity) and his ambition for the future. History and destiny. Both factors are the determinants of the equation of life, the unfolding of which may be at times as clear-cut as the demonstration of a mathematical theorem.

The artist, who is first a man and next a professional, determines his organic adjustment through his sensory organs, and his being is made up of himself and his "circumstance," as Von Uexküll has shown.

The modern artist whose work has developed in the last half century has been subjected to the historical climate of our time, of which the most prominent influence has been the scientific revolution. In past ages the artist used to translate the ideas of the governing class, using as his raw material landscapes, figures and backgrounds of his time. In the atomic age, which started at the beginning of this century, the artist has been governed by the force of the new ideas which form the ideological organism of the new century.

More artisan than bohemian, the present day artist is both a businessman in his transactions and a scientist in his techniques. That is the principal difference between the artist of today who puts everything into the profound study of his theme and puts his technique to the service of an idea, and the classical artist of yesteryear for whom inspiration and improvisation were supremely important.

It is to be noted that every stroke of the brush has behind it a hand and an arm directed by a man whose brain has been continuously permeated by the ideas of the century in which he lives. It is important to him that he lives in a century shaken by political movements and colored by tremendous wars, a century also of gigantic scientific advances which are being applied to fabulous technological projects and apocalyptic orgies of destruction.

The brain of the artist, like a small cosmos, has been illuminated by the sun of new ideas, and his hand has been influenced by the new techniques of scientists, who move the hands of the artist in his studio just as surely as they guide the hands of the technician in his laboratory.
In the first part of this paper we selected the date 1900, the year in which Planck formulated his quantum theory, as marking the beginning of the new atomic science. (13) We can select the year 1907, when his "Les Demoiselles d'Avignon," Picasso gave to the world his cubist manifesto, as the year which saw the initiation of non-objective abstract art. The connection between this new art and atomic science forms the subject of the second part of this study.

Let us review briefly the historical development of modern art, its general characteristics, and the psychological impact of atomic science on the abstract art of our time.

Up to the eighteenth century, the artist depended almost exclusively on the patronage of the Church and the Royal Court. From the French Revolution on, it was the merchant who supported the artist, commissioning him to execute pictures on peaceful bourgeois themes. That forced the artist to choose subjects "that would be understood." Rebels like Courbet, Manet, Pissarro and Seurat, were isolated, and in their rebellion they were moved to use a semi-scientific objective method to register light, which consisted in employing pure colors that would blend in the eye of the spectator and not on the palette of the painter, thus abstracting the form of things. Light, which so fascinated these impressionists, subconsciously undermined their interest in the form of things and in landscape as pictorial subjects.

As a reaction, and to restore the architectural structure of theme, Cézanne used geometry, making of "the cylinder, the cone, and the sphere" the essence of all things; and Seurat employed vertical, diagonal, and horizontal lines as a means of achieving the denaturalization of persons and objects. In this way, both artists limited and domesticated Nature, making of it a continuum of space-time, as the physicists and mathematicians would later do in the exact sciences.

Cézanne equalized the value of still-life and human form as themes. As the years went by, intellectual rebels projected into the twentieth century their unorthodox impulse to analyze in abstract art practical forms found in still-life, while those rebels opposed to the supremacy of reason would emphasize the dynamic space of landscape in their surrealist compositions. Such were the psychological determinants of the two great trends in modern art.

Cubist painting was born at the beginning of this century under the tutelage of Braque and Picasso, growing from the cult of the exotic, the ballet, the study of African masks, the interest in negro folklore and primitivism, from a desire for escape—because art is escape—and from the hunger for knowledge sharpened by the new sciences.

The objective of cubism was not to achieve visual pleasure but rather to make of art a scientific-philosophical instrument of investigation, to bring into relief new concepts of the reality of the visible world. This was a revolt, analogous to the scientific revolt against classicism. Doubting the efficacy of the senses as vehicles of knowledge, cubism fell back on the logical and plastic mind, rejecting architectural and schematic concepts of classical order.

Cubist art is incoherent because it adopts musical liberties and utilizes new combinations of known forms; in doing so, it breaks objects up, putting them together again in a new structure. Its purpose is the organic development of non-symbolic pure forms in an imaginary bidimensional space; the idea is not to paint themes, but pictures.

The planes of cubism are those of synthetic vision which approaches the observer and does not withdraw in deceptive space, as happens in classical paintings. The frame of the picture is not a window looking out upon distance, but a limit of space. The picture is monochromatic and bidimensional, so that it may come closer to the spectator. This is a cloistered art of still-life, of static interrelations and immobility.

Cubism represents the final stage of the cycle initiated by the classical painting of th Quattrocento which was concerned with the bulk or empty spaces of things: the painter tried to represent things objectively. Much later came the impressionists, who no longer painted things, but sensations; it was subjective painting, not interested in what the artist saw but rather in the very act of seeing. Cubism comes as the last act: these painters are no longer interested in things or sensations, but in ideas. They gave up an objective art like the classical, or a subjective art like the impressionistic, and became projective. Turning his back on the world, the painter refused to use his retina as a mirror to reflect around him; instead, he closed his eyes and projected his ideas.

This evolution in art runs parallel with the evolution of physics, which passed from investigating things by naturalistic observation to studying the perceptions of things, and ended up by analyzing their ideological scheme. This transition in both the scientific investigator and the artist from external reality to subjectivity and intra-subjectivity—that is, the displacement of the angle from which they viewed the universe—provides the visual interpretative clue to the evolution of scientific method and modern artistic technique.

Futurism, which was born in 1910, is interested in landscape just as cubism is interested in still-life. It is the art which glorifies the dynamism of the machine, and was born in the North of Italy, during those years when a gigantic explosion of industrial power had taken place there. The widespread use of machinery in industry, and incipient fascism, together with the worship of power, dynamism, speed, "the dangerous life," all incubated futurism. It was an art of movement and force, of persons and animals in motion, mad streets, whirling machines, factories and cities, which sucked the spectator up in their whirlpools. It was not a cloistered art like cubism; it sought its impetus in the public square and in dynamic interferences.

After that came the advent of surrealism with Dalí, Ernst, de Chirico, Klee and Tanguy. A fantastic art, it included works characterized by deliberate incongruity and inconstancy, having as its principal aim to shock the observer with the unexpected, violating all convention and custom, creating its own laws in a lawless world. The trick of this technique was to paint with great realism each fragment of the unreal taken from a universe of phantasmagoria and nightmare; but the care taken in the painting of the component parts of the dream caused the unreality to be accepted as possible. Their themes were extraordinary visions fabricated out of ordinary, familiar things, with double images, each one of which represented something completely different but connected by the non-logic of dreams. It was an art which exalted spatial, subconscious liberty; it was a visceral art, deep, cavernous, dissecting, interested in the human figure and in landscape. Relatedly to the expressionistic compulsion, it sought dynamic space and organic forms in landscape. (14)

D. The psychodynamics of abstract art

The next step was the birth of purely abstract art, which actually originated many centuries before our time, when the Flemish artists of the fifteenth and sixteenth centuries began to abstract, that is, to eliminate superfluous elements from their pictures, leaving only the basic factors.

In our time that tendency has developed to the maximum in abstract art, having four determining factors: (1) the progress of photographic art, which convinced the painter that the camera could in many cases get results objectively superior to those achieved by the paint brush; (2) the influence of music, which inspired the artist to create a universal art, an international language of emotion which would be free in space, as music was free in time, from the provincialism of local themes; (3) scientific discoveries, especially the high-powered microscope and the long-range telescope which widened the visual horizon of man; and (4) the development of stroboscopic cameras which register all speeds.

All these factors, together with the perfection of machinery and the introduction of cylindrical, conical and spherical forms, have been replacing forms found in nature, and have been influencing the artist slowly to abandon the universe which he has been looking at from age-old angles in favor of a universe which reveals itself in fragments and strips but which is daily growing. Not only has the traditional order of space, form and color undergone a revolution analogous to the scientific revolution, but the factors of time and motion have been added.

In its most intellectual and geometric as well as its most emotional and romantic forms, abstract art has followed various trends which can be summarized as follows: (1) Preference for themes based on mechanical or architectonic forms, still-life and inanimate objects, favoring the representation of the mechanical, the mineral, the telluric or lunar, and the machine-like. Rarely does the animal or human figure appear in abstract art, except in surrealistic art, which seems to have turned its back on the external, objective world. (2) The introduction of color as a dynamic element of form itself and the introduction of time and motion in an art which up to our century has been eminently static. Abstract art, like the new physics, plays an active role in the static or inanimate, as if it were attempting an atomic unification of the living and the non-living. (3) The desire to attain an almost mystical unity.

(continued on page 36)
The designers wish to thank the members of the International Panel of Five Architects, Lucio Costa, Walter Gropius, Charles Le Corbusier, Swen Markelius and Ernesto Rogers for their friendly support during the preparation of this project; also to Eero Saarinen, who collaborated effectively as the architects' invited consultant.

The Unesco building should represent the trends of a living architecture. Developments throughout the world should be synthesized in this building to express the architectural spirit of our time.

This building has been set parallel to the "Grand Axe." The form, an elongated rectangle rather than a tower, is in line with the general aspects of Paris, dominantly horizontal.

From the visual effect created by the verticality and horizontality of its two principal elements, the building will receive its main character. The architects have tried to reinforce this effect by simplicity and by avoiding any form or expression which might quickly become out of date.

The architects aim is to achieve an esthetic impact by the poetry inherent,
— in the lines of a man-made crystalline structure;
— in the penetration of defined spaces with the amorphous space of Nature and with organic forms such as trees, etc.
— in the monumental combination of materials such as stones, concrete, glass aluminum, transparencies and perforations;
— in the satisfaction offered by the pure elements of structure and good usage;
— in the fluctuation of a composition between symmetry and asymmetry.

The predominantly glass surfaces of the Office Building are marked by the inter-play of projecting stone slabs. The roof terrace of the Central Building, visible from the S. Offices will show a large polychrome composition of plants and colored stone textures.

The relatively low Central Building with its roof composition is bounded on the N by the vertical Office Building and on the S by the volume of the Plenary Hall. The site is part of what is known as the "green belt" of Paris. Consequently the building shall take up the minimum of ground space and leave as much room as possible for gardens and open green areas. The organization of the project supports this idea by incorporating a "Piazza" on the N side, a Central Patio, a Small Patio, a Delegates' Patio and a S garden surrounding the Plenary Hall. These will help to bring the Bois de Boulogne into and around the Unesco building.

The architects, after giving careful attention to the relative advantages of horizontal and vertical communication, combined both methods. They recognize that this co-ordination results in the most effective solution. Not only...
Marcel Breuer occupies a distinctive position in the field of contemporary architecture. He is known for the clarity of his designs, the imaginative use he makes of modern materials and techniques, and for his sensitivity towards the needs of the people who are to occupy his buildings. It is not so well known that he has been a painter, sculptor, and the inventor of tubular steel furniture. He was also the first designer to use plywood in the manufacture of furniture. He discovered architecture as his real métier while a student at the Bauhaus in Germany, and by the late 1930's had firmly established his reputation in Europe as an architectural leader. In 1937 he came to this country to work with Walter Gropius as a research professor in the Department of Architecture at Harvard, and during his ten years at Harvard, practiced architecture in partnership with Gropius. Marcel Breuer's most recent commission is the design of the UNESCO building in Paris.
"Every part of this building had to be conceived for a multiple use: teaching versus performance, social life versus meditation, cost-dictated simplicity versus multi-purpose complications. All this was interesting to me. I felt it to be the soil which nourishes and refreshes thought. All these problems and difficulties carry us towards a more direct conceived architecture, towards a contemporary one. The vigor and youthful elan of the College community was from the beginning, and still is, an important stimulus to the solution of their unorthodox problems. The building, besides housing the functions it is designed for, will be, perhaps, the symbolic center of college life—the life of those who are young, interested, unspoiled—not cynical, not hardened in routine, of those who search the future. Their spirit is not static, not frozen in periods, the alive, eager, self-perpetuating spirit of this country's youth."—MARCEL BREUER
The Arts Center building with its flat roof, straight lines, and exterior of glass and painted brick, is the only architecturally modern structure on the campus of Sarah Lawrence College. The auditorium, which seats 500, and the stage, which can be converted from the conventional to semi-arena style, comprise the building's dominating elements. The rear of the stage consists of large sliding doors which, when open, allow productions to be projected in the opposite direction to an outdoor audience of 1500 ranged over the tennis courts now being built at the rear of the Center.

The floor of the auditorium rises from stage level in six tiers. For capacity houses, a double row of seats is available for each of the six tiers. On other occasions, alternate rows may be removed and replaced with worktables for lectures, forums and adult education sessions, or by cabaret tables at which 200 to 220 students and their escorts may be seated, thus creating a campus cabaret atmosphere. On warm evenings, the dancing area can be extended to the roof terrace adjoining the foyer of the auditorium.

Beneath the auditorium, the Center's lower level houses a dance studio to accommodate 40 students at a time, music studios, chamber music rooms, a costume design shop, theatre workshop, dressing rooms, and faculty offices. On a slightly higher level is the main living room, which extends onto an open flagstone terrace. Furnished to accommodate 80 to 100 persons comfortably, the living room includes the college store at one end. At the other end of the room is a coffee shop equipped with a soda fountain, sandwich unit, hot plates and a grill. The coffee shop can serve 60 customers an hour.

The Arts Center will be a modern laboratory for college education in the performing arts and as a new cultural center for the Westchester community. Lectures, forums, dance and music concerts and experimental theatre productions will be opened to members of the Westchester community.
A low cost house having essentially a bi-nuclear plan: living and sleeping centers joined by a mechanical core of kitchen and bath.

A good view of the ocean is toward the south—away from the sun. This resulted in a main exposure of the living areas to the view with some openness to the sun (north) toward a central court (one wall of which will be decorated with a mural).

All bedrooms in a row face the sun toward a courtyard on the north and are protected by a roof overhang.

The slope of the land provides for an open carport, entrance and workshop, utility room below the main floor.

The interior of the living area is a continuous flowing space including the interior court, the stair well and the open kitchen around a free-standing fireplace.

Extensive use of glass is made possible by a very mild climate without any provision for heating. Construction is of timber frame finished with vertical T.&G. boarding on the exterior and of brick for the lower floor and the retaining walls.
HILLSIDE HOUSE

BY ROBERT B. MARQUIS

Peter Bachus, contractor
With the rear of the house sitting on a hill there is level access to an outdoor area and a side street; the front half supported by columns juts out to provide a carport underneath. From this carport the entrance stair rises in the middle of the house; thus the front door is approximately at center and makes for a compact, well-unified plan, giving all the rooms except kitchen and bath a view of the bay.

The continuous butterfly roof is framed with 4 x 10 beams at 4'-6" on center running the full length of the house and extending over the decks at both ends to form a trellis. The interior partitions of the kitchen and all exterior walls of the house are free of the beams which allows them to reach beyond in order to give a feeling of space and lightness. Glass is used between kitchen and dining areas to keep odors out of the living space. The house is now under construction.
The "jungle gym" is made of 5 sets of intersecting pipe, welded at points of intersection. The units are prefabricated and placed in the wall during construction, each set attached at 4 points to insure strength.

DESIGNED BY CRAIG ELLWOOD

To assure proper correlation of house and garden and proper specification of landscape elements, the designer and landscape architect have worked together since the beginning of the project. The important provisions for yard and pool lighting, terrace areas, retaining walls, and finish grading were thus provided for during construction.

It was the desire to keep the landscape as simple, as useful, and as easily maintained as possible, and yet have the luxury of rich forms and textures—all within a nominal budget. To complement the architecture, interesting forms of plant material, rapid in growth, and unique to Southern California, have been specified.

The perimeter clay block curb and wall define the physical limits of the site and control water runoff. Play and garden storage are provided, and a clay block wall separates the service and child play areas from the living garden. A "jungle gym" makes further use of this wall, and becomes a sculptural element in the landscape—changing its shadow pattern throughout the day. Nearby is an open space of lawn for more active play. A low bench for sunning and for the display of tubbed plant material leads into the "view" part of the garden, with its garden furniture, pools, and plant material. The mound here wedges the site to the surrounding landscape and offers a feeling of protection from the wide canyon below. Liquidambar trees give filtered shade and wind protection without restricting the view. Three steel bowls, painted colors used in the house (black, eggshell, and terra cotta) are lit from beneath, at night becoming huge reflectors of soft light. The jets in the pool are at varying heights, and again repeat the structure's interior colors.

Each bedroom has its own private garden court; a baffle of obscure glass, integrated with the architecture, protects these courts and assures privacy from the street. A large mound between the screen and the street helps set the house into the landscape and makes an advantage of an otherwise awkward pitching away of the ground at that point.

The plan shows the revised kitchen and guest bath as mentioned in a previous issue.

ERIC ARMSTRONG, LANDSCAPE ARCHITECT

MACKINTOSH & MACKINTOSH, CONSULTING ENGINEERS

HENRY SALZMAN, GENERAL CONTRACTOR
The client had purchased three hillside lots; the lower a ravine; the others with steep grades, but it was possible with very little excavating and a small retaining wall to make a house grow on them.

It was desirable to avoid the upkeep of grounds so only the immediate areas were landscaped, the rest left with the natural growth. To compensate for outside living areas, the designer placed a large terrace which expands over the carport.

The house has been planned for two phases: the first, to provide a bachelor area for sleep, work, housekeeping, and entertaining with easy informality; later a bedroom and full bath are planned as a future addition. There are few permanent partitions; all others being storage units. General light sources are placed on the top of the storage units on glass shelves. The brick fireplace has a raised and expanded hearthshelf which can substitute both as a seat and table. A free floating accordion-type door closes the sleeping area.
Since radio, phonograph and television have become such integral parts of our mode of living, we find it more and more desirable that the necessary equipment should be so nearly integrated with the functional and decorative scheme of our homes. Even those among us who may not be avid music lovers or television fans will do well to recognize this trend, if only to protect our investment. One such individualist who can afford to ignore all basic economic considerations would omit his building plans reasonable provisions for heating or lighting—hereafter the electronic plant of a house is bound to play as important a part as the structure itself, a hobby. The hobbyist, and likewise the technical experts, will strive first and foremost for theoretical perfection; those to whom our suggestions are addressed are interested only in the musical quality of the sound which emanates from their loudspeaker system. At this juncture you may ask whether the theoretical perfection will not necessarily result also in musical perfection and complete listening satisfaction. The answer—not least our answer—is not Musical quality is a highly individual criterion which eludes objective measurements or absolute formulas. A few years ago, one of the foremost universities in this country conducted an interesting experiment. It ordered a violin which in every minute detail corresponded with a Stradivarius. Then, the sound of the authentic Strad and its copy was measured with the most elaborate devices—and the results "proved" that the two instruments were "identical". Next, a number of famous violinists were invited to play these violins; without the slightest hesitation, every one of them expressed his preference for the real Strad. Even among the Strads there is a considerable difference; each has his own "character". Next, different artists have decided preferences for one or the other, depending on their own individual needs and their concepts of beautiful sound. By the same token, the music-lover who contemplates the purchase of a sound reproducing instrument, such as a radio-phonograph, will do best to trust his own ear. To complicate matters further—or, to simplify it, depending on your outlook—two instruments of comparable price may both be highly satisfactory, one being more pleasing to the ear of one person and distinctly more to your taste than the other. Here, of course, is the basic and only justification for the great variety of components and complete instruments which the manufacturers offer for your consideration. One must select that model which satisfies your needs, at the price which you can afford. From these considerations, your best course of action should become clear. Make a firm resolve to close your ears to all sales talk, your eyes to all false advertising, and thus scientifically they are presented; listen, and listen carefully to the music; compare various instruments and components side by side—and take your time. Only after you have decided on your order of preference, inquire about cost. Chances are you will have discovered an instrument, or a group of components which will cost much less than you expected, because the price of high-quality "custom" sound equipment is no longer in the luxury class today. Considerable savings will be at your hand, and a further consideration the so-called "mail-order houses"; this entails no sacrifice because you will find that the sound specialists in your own community sell at the same prices; you even save money, because you pay no freight. Many of the leading manufacturers are in the West—so it would be especially silly to order their products from Chicago or New York. Once the first step has been taken and you have selected the equipment, a second and equally crucial decision must be made. You will require the aid of a specialist in assisting you with the planning and execution of your installation. Select him in the same manner in which you selected your architect or decorator, considering his work, his reputation, his personality—for he must be sympathetic to what you are aiming to accomplish. Make specially sure that he is also acceptable to your architect, for he will have to work with him in close harmony. Before you discuss the details of the installation with your sound-specialist and your architect or decorator, there are certain questions which you should first clarify in your own mind. With the exception of the loudspeakers, all other components can be placed in accordance with your convenience and the general decorative scheme. Here are a few preliminary points for your consideration:

1. The radio-tuner, the main control-panel and the record-player should be conveniently located so that you can operate them either while sitting in your favorite armchair, or they should be in close enough proximity to be readily accessible.

2. If, for reasons of space, you decide to house the equipment in a closet, a concealed "wall-space," book-cases, cupboards or separate cabinets, then you may find it especially worthwhile to have one of the remote controllers which are now manufactured in considerable variety. (These units, incidentally, can also be adapted to remote controllers for lights, in line with a "home entertainment center" which sounds and looks like the proverbial million, but is reasonable enough in cost to leave you sufficient money to feed your record-changer—and your family.)

3. Decide where, in addition to the main listening area, you wish to provide for additional speakers—perhaps in the bedroom, the patio, etc. This can be accomplished at a nominal cost. If you have been thinking about remote-control operation that would enable you to change programs, start and operate a record-changer from various locations throughout the house, forget about it until the high initial expense and the cost of upkeep does not concern you. In most instances, it is actually less costly and more foolproof to install two, three, or more complet sets rather than a centralized unit with remote controls. If you have two or three rooms, by placing the unit on a turntable within a wall or cabinet. Make sure that the television unit is sufficiently independent to permit viewing by one part of the family while another enjoys radio or records. If the T.V. set is in the same area as the main music-reproducing system, provisions should be made so that the sound-system of the speaker of the main set can be utilized to reproduce the audible part of a video program, especially since most television sets have rather poor sound systems.

4. A tape-recorder will be a useful adjunct to your sound system. It will enable you to record at very reasonable cost, memorable events in your home or musical performances which are presented over the air and which are not available on records. An instrument costing less than two-hundred dollars will make recordings comparable to the average quality of 78 RPM records, while for less than four-hundred dollars you can now own equipment which will yield recordings of professional quality.

5. Plan your storage area carefully, to provide space and protection for all types of records, for such accessories as spare needles, microphone, tape, a catalog of your collection, etc. Have all the various parts of your equipment on a pull-out board so that you have a convenient surface on which to arrange your records. The most suitable location, of course, is in close proximity to your record-player.

6. Whether you are building a new home or remodeling an old one, you will find it not only more satisfactory, but also more economical to plan your sound and television installation right from the start—and down to the last detail. It simply is not enough to leave "some space," perhaps to permit viewing by one part of the family while another enjoys radio or records. If the T.V. set is in the same area as the music-reproducing system, provisions should be made so that the sound-system of the person of the main set can be utilized to reproduce the audible part of a video program, especially since most television sets have rather poor sound systems.

The author of this article is well known amongst music lovers and high-fidelity enthusiasts. He is one of the leading specialists in the field of records and sound equipment. He manages the Music Guild concert series, acts as consultant to various recording companies, produces a weekly radio program and edits a respected critical review of new recordings and developments in the field of sound reproduction.
The new Case Study House for the magazine, ARTS & ARCHITECTURE, by Craig Ellwood, is now under construction and should, barring ill winds, be ready for showing in approximately three months. The magazine will record the building procedures up until the time of opening, and it is hoped that with the next issue we will be able to show substantial progress by way of construction illustrations and explanations.

The following is a list of those materials which have been specified by the designer for the magazine’s new Case Study House, representing a careful selection of products on the basis of quality, design, and general usefulness. They have been selected from among many good products as the best suited to a specific purpose, or at least best suited to the use to which this individual designer intends to put them. They are, therefore, (within the meaning of this program) Merit Specified. Other specifications will be added as the project develops.

FARIES BATHROOM ACCESSORIES.—The Faries line of bathroom accessories is ingeniously designed to solve the placement problems of every day necessities; other pieces are fully recessed. All accessories are well designed, stored built and come with a heavy Fari-Chrome finish. They are manufactured by the Faries Manufacturing Company, Decatur, Illinois.

MISSISSIPPI OBSCURE GLASS.—All obscur glass in the Case Study House is from the Mississippi glass company. This glass is available in a number of interesting textures and finishes, and varying degrees of obscurity are obtained by sandblasting or acid etching one or both surfaces for maximum glare reduction. Flexible enough to solve almost any partition problem it transmits valuable light while protecting complete privacy. It is manufactured by the Mississippi Glass Company, 88 Angelica Street, St. Louis, Missouri.

TELEPHONE.—Provision of conduit for concealing telephone wiring has been made for the Case Study House. This provision is extremely important on homes having slab floors and flat roofs. A telephone outlet should be provided at all present and future locations where a telephone may be required. When underground service is desired, a conduit should be provided from the serving pole or manhole to a protector cabinet or location at the house. If service is to be overhead, a service entrance conduit should be provided to eliminate exposed wiring on the outside walls. Architects, Builders, and Home Owners are urged to consult with the Telephone Company serving the area in which the structure is to be erected.

PREVIOUSLY NOTED:
Allen Fire Hose Stations
Manufactured by W. D. Allen Manufacturing Company, Chicago 6, Illinois
West Coast Office at 2330 West Third Street, Los Angeles 5

American Mold Shower Door
Manufactured by the American Shower Door Company, Inc., 1028 North La Brea Avenue, Los Angeles 38

Aquella Waterproofing material
Manufactured by Prima Products, Inc., 10 East Forthieth Street, New York 16

Bendix Automatic Washer, Automatic Dryer
Manufactured by Bendix, Home Appliances, Inc., South Bend 24, Indiana

Built-in Television Outlet
The T. V. Outlet Company, 6510 Teasdale Avenue, North Hollywood, California

Ceramic Mosaic Tile
Manufactured by The Mosaic Tile Company, Zanesville, Ohio; distributed in Southern California by The Mosaic Tile Company, 819 N. Highland, Hollywood 38

“Edco” Delayed Action Light Switch
Manufactured by Electric Deodorizer Corp., 9993 Broadway, Detroit 4, Mich.

Fiberglass Insulation
A product of Owens-Corning Fiberglas Corporation, Toledo 1

Garden Flood Lights
Manufactured by the Stone Electric Product Company, Elizabeth, New Jersey
Distributed by The McLaughlin Company, 811 East Fourteenth Place Los Angeles 21, California

Gas-Fired Automatic Incinerator
Manufactured by Bowser, Inc., Incineration Division, Cairo, Illinois.

Genoens Doors
Manufactured by the General Veneer Manufacturing Co., 8555 Otis St., South Gate

General Water Heater
Manufactured by General Water Heater Corp., 1 East Magnolia Blvd., Burbank

Glide-All Sliding Cabinet Doors
Manufactured by Woodall Industries, Inc., 4326 Van Nuys Blvd, Sherman Oaks

Globe Lighting Fixtures
Manufactured by Globe Lighting Products, Inc., 2121 South Main Street, Los Angeles 7, California

Globe Vanitory
Manufactured by the Globe-Wernicke Company, Cincinnati, Ohio
Distributed by Thomas W. Berger, Inc., 701 American Building, Cincinnati

Heat Registers and Ventilating Grilles
Manufactured by The Hart and Cooley Manufacturing Company, Holland, Michigan
Distributor: The Rueger Company, 1335 South Hill Street, Los Angeles 15

Kaiser Hardwall Plaster
Manufactured by the Kaiser Gypsum Division of Kaiser Industries

148 South Robertson Boulevard, Beverly Hills, California

Leather Lawn Chair, Utilitee Folding Chair
Manufactured by the Crescent Aluminum Products Company, Allegan, Michigan

Lycester Lighting Fixtures
Manufactured by Lightobler Company, Jersey City 5, New Jersey

Maro Recessed Lighting Fixtures
Manufactured by Marvin Manufacturing Company

3071 East Twelfth Street, Los Angeles, California

Milwaukee Fluorescent Bathroom Cabinet
Manufactured by Northam Light Company, 1661 North Water Street, Milwaukee

Modernlfofl Accordion Doors
Manufactured by New Castle Products, Indiana, and distributed by Modern Building Specialties Company, 579 East Green Street, Passada, California

Modular Hollow Clay Block
Manufactured by the Davidson Brick Company, 4701 Floral Drive, Los Angeles 22

Moen Mixing Faucets
Manufactured by Moen Valve Company, a division of Rovella Metal Products Corp., 6518 Rovella Avenue, Seattle 5, Washington

Navamar Laminare
Manufactured by the National Plastic Products Company with warehouse and sales office at 3252 East Thirty-seventh Street, Los Angeles

NuTone Products
Manufactured by NuTone, Inc., Madison and Red Bank Roads, Cincinnati 27, Ohio, and distributed through NuTone, Inc., 1734 South Maple Street, Los Angeles 15

Palos Verdes Fireplace Rock
Obtained from the Palos Verdes Corporation

Administrative Building, Rolling Hills, California

Payne Perimeter Heating Unit
Manufactured by the Payne Furnace Company, Monrovia, California; the unit will be installed by La Brea Heating Co., 734 E. Hyde Park Blvd., Inglewood, Calif.

Plexolite
Manufactured by Plexolite Corporation and distributed by Plexolite Sales Company, 4235 West Jefferson Boulevard, Los Angeles 16

Plugmold
Manufactured by the Wiremold Company, Hartford 10, Connecticut

Portland Cement is manufactured by more than 150 different plants in 34 of the United States and in Canada.

Purinie Aggregate
Crownite is exclusively distributed in California by the Blue Diamond Corp., Los Angeles; Pacific Coast Aggregates, Inc., San Francisco; Squires-Belt Materials Company, San Diego

Ramset Fastening System
Ramset Fastening System, Inc., 12117 Breaa Road, Cleveland 11

Revolver Wardrobes
Manufactured by the Revolver Corporation, 1945 North Central Avenue, El Monte, California

Retir Electric Barbecue Spitt
Manufactured by the Retir Company, 8470 Garfield Avenue, Bell Gardens, Calif.

Russwin Locksets
Manufactured by the Russell and Erwin Division of The American Hardware Corp., New Britain, Conn. West Coast Rep.: R. C. Bolt, 1129 Meadowbrook, Alhambra

Servel Refrigerator
Manufactured by Servel, Inc., Evanville 20, Indiana

Shirley Steel Kitchen Sink and Cabinets
Manufactured by the Shirley Corporation, Indianapolis 2, Indiana

Steelbilt Sliding Glass Doors and Windows
Manufactured by Steelbilt, Inc., 4801 East Washington Boulevard, Los Angeles 22

Square Tubing
Manufactured by Drake Steel Supply Company

3071 East Twelfth Street, Los Angeles, California

Superfan Portable Forced Air Blower
Manufactured by Queen Stove Works, Inc., Albert Lee, Minnesota

Thermadolar Forced Air Heating Controls
Manufactured by Carvel Heat Equipment Co., 1217 Temple Street, Los Angeles 26

Van-Packer Chimney
Manufactured by the Van-Packer Corporation, 209 South La Salle Street, Chicago 4

Western-Holly Automatic Built-in-Gas Cooking Units
Manufactured by Western-Holly Appliance Company, 8536 Hays St., Culver City
NOTES IN PASSING
continued from page 15
which is indeed the very essence of man’s reason for living.”

The rights of the artist are thus seen to be not merely one facet of Human Rights, but very their symbol; if not, indeed, the fundamental condition for all other rights.

Thornton Wilder, reaffirmed “two principles which the world is in constant danger of forgetting: that the artist, through his creation, has been at all times a force that draws men together, and reminds them that the things which men have in common are greater than the things that separate them, and that the work of the artist is the clearest example of the operation of freedom in the human spirit.”

Mr. Torres Bodet drew attention to the heavy obligations that must always go with freedom. “There are two ways in which the artist can be slave, the first is if he is obliged to bow to orders outside his art; the second is to imagine that he is free in proportion as he rejects the rules which are the strength of all art. . . .”

GEORGES FRADIER

BERNARD ROSENTHAL, SCULPTOR
continued from page 16
California is the home of one of the most interesting and successful of these sculptor-explorers, Bernard Rosenthal, who lives in a modern house high on a California Mesa. His studio is the workshop of a man who works ardently with his hands, the setting betokens a man who lives ardently and largely in the spirit. His materials and tools are of this century of steel-skeletoned buildings and nuclear fission—metal, blow-torches, hammers, tongs, welder’s equipment. But the man who uses them is no slave to the inhuman terrors of a mechanistic civilization. He has seized upon characteristic materials of our time to use them as instruments for the fashioning of images, conceived by a highly poetic imagination and filtered through a sensitive intelligence.

The crude but ductile and malleable raw stuff of bronze, aluminum and steel wire, susceptible to a wonderful range of patinations, is from the world of girders and fences, but it is made to serve the purposes of the creative imagination with astonishingly evocative and vital results. These are as broad as all nature.

At one end are the elegantly witty insect musicians, at once taut and relaxed, attenuated yet solid, mindless as the grasshoppers and cicadas of the Malibu hills and as fearsomely concentrated as some concert artists we all have witnessed. Only the essentials of form, posture and movement are here, but how significant and necessary they are, the bow and fingering hands of the Cello Player for example, which are remarkable details of observed fact. The playful details are never extraneous to the essentials of form, posture and movement are here, but how taut and relaxed, attenuated yet solid, mindless as the grass.

At the other end is a statement as profound and exciting as his Genesis, constructed of the most unlikely materials: ribbed miniature girders and barbed wire, which tells us in instantly comprehensible and beautiful form of a concept wildly improbable for anything of ordinary scale, a solar explosion. The mighty thruts and airy delicacies of this extraordinary piece remind us again that the artist’s workshop lies under vast starry skies and that he has constantly reflected upon those galactic wonders which seem so close in the clear air.

Somewhere between are the series of works drawn from reflective but sharp-eyed walks along the beach, the spiny Nest of the Crab and, perhaps best known of his public works, the great fish fountain in the entrance courtyard of Robinson’s Beverly Hills. It is deeply encouraging to know that an artist of such integrity and so unconventional can be given important commissions of this sort, not as an afterthought, but as an integral part of the plan.
nring for a monumental building. That serene and witty submarine landscape, with its arc-tailed and goggles-eyed fish, its traceries of subaqueous fern and floating starfish, all in brilliant deep green bronze, lies in fascinating silence and tender movement only a few yards from Wilshire Boulevard. It is the most original piece of sculpture in Los Angeles, and ought to be a stop on any art tour of the city.

Rosenthal's is a talent already widely recognized in professional circles. One hopes that further major commissions and such exhibitions as the one planned in New York will focus attention on the work of a sculptor of whom California should be very proud.

Theodore Allen Heinrich is a former director of the Huntington Library Art Gallery, and is now Associate Curator of painting and sculpture at the Metropolitan Museum of Art.

AN EXPERIMENT IN CORRELATION
continued from page 19

In abstract art as in the new physics, there is a contrast between the rigorous austerity of its scientifically objective methods, and the mysticism implied in its ultimate aim of understanding—and regulating—the universe. (15)

Abstract art may be classified according to whether its main objective is the representation of abstract geometrical form, stylized geometrical representations, abstract organic forms, or stylized organic forms.

In the first group we can include pictures without definite subject, representing only a geometric form pure and abstract, intersections of lines and right angles, series of geometric forms the symmetry of which gives the spectator a pleasant, harmonious impression, like that he receives from certain fugues of Bach, the mathematician of music. It is an art which avoids the curve and takes pleasure in the line and right angles, uses great undorned rectangles of uniform intensity without shading, separated and at the same time united by narrower bands. Pure art is abstract, ascetic, of immaculate whiteness and great mathematical precision. Its supreme exponent was the Dutch painter Mondrian, creator of an abstract space of primary colors and of a pure, almost musical rhythm form, selecting those colors which corresponded optically to the spatial form desired. His principal apostles were Van Doesburg, Gabo, and Nicholson, their art being symbolic of our era of advanced engineering obsessed by mathematical order and the mechanization of the universe.

When to the aforementioned style is added the representation of an object, there is created an art of stylized geometric representation. Its objective is to represent objects geometrically, stripping them of all superfluity and leaving them reduced to their schematic form, to their skeleton, to the pure symbol of the thing. Vertical and horizontal lines are used to represent objects which are sometimes solid and compact. Not only the inanimate but also the living can be represented geometrically in this group, provided it appears only in mechanical forms meant to accentuate the basic structure of a thing. A jar or a bottle is represented by Morandi as the jar or the bottle, symbolizing all the jars and bottles of the world. They are not things; they are the telegram of things, the geometrical shorthand of things. Instead of lines and straight planes, this art constructs volumes of three dimensions, especially cylinders, cones and spheres, which according to Cézanne were the basic elements of nature. Light is always theatrical in these pictures, and objects appear in dramatic isolation, or grouped in the form of a cluster of symbols. Fernand Léger was the shining star of this style, and Archipenko and Le Corbusier his satellites.

Sometimes abstract art may utilize forms which unmistakably represent or suggest life and living things. It is the art made famous by Calder, Noguchi, Joan Miro and Jean Arp.

The works of Jean Arp look as if a piece of sculpture representing a human torso had fallen on a beach and had been abandoned to the elements; beaten by the waves and whipped by the wind for years, its edges finally become smooth, its planes soft, its contours vague, its juttings and angles round. There would remain then, what we might call the spirit of primitive art; that which exists in a human torso underneath its angles and curves, its folds and its edges. Arp has shrunk the work of Nature and has proceeded by leaps, all of which coincides with the laws of Einstein, Planck and the theories of Uexküll.

This art embraces figures which are painted or sculptured irregularly; figures of fluid contour which avoid the regular geometric curve as well as the straight line; curves are not traced by repeating a basic
unity, but rather grow in accordance with the rhythm of changing development. The resulting form cannot be broken up into parts and must be considered as a unique whole. Each unit of these free forms should not be broken up into parts and apprehended as a whole, united in its parts by a surface or a tension of contour like that of the cells of living beings. Its unifying principle is internal, and each constituent form embodies the possibility of change without losing its identity.

Sometimes, organic form is applied to the image, not for the purpose of including objects in a measurable order and rhythm as geometric form would do, but to give to things the fluidity of form. Instead of skeletal structure, this type of stylized organic form prefers the bulbous and protuberant outlines of soft and stylized contours, indicating that the most complex forms of life that we know derive from simple cellular organisms and resemble each other. They are symbolic forms similar to the natural species from which they evolved, but with their own laws of development. They are, for example, parts of the human being, hands or feet, isolated and alive, tragic or humorous comments on the human being whom they still resemble. Miro, Henry Moore, Picasso and Paul Klee are the prophets of this style which sometimes is a wandering line, or figures seemingly created from airless lines, or even an abstract form of a wavering and calabistic nature, the possibilities of which have been exploited by modern caricaturists.

E. A commentary on the sense of form in modern art

The revolutionary change which abstract art represents in comparison with classic art may perhaps be best appreciated in its concept of the human form, which deserves some special observations.

Artistic anatomy has successively reflected in its iconography the climate prevailing in each historical epoch, such as the medieval allegorical-religious vision, the architectonic style of the Renaissance, the mechanical movement of the baroque, or the evolutionism of the past century. (16)

In our times, the change in human morphology which is reflected in abstract art runs parallel with the change which took place in the conceptions of scientific anatomy. In the last twenty years, many voices have been raised proclaiming that morphology as a science was suffering from ankylosis and that one should revive the anatomy of the corpse, making of it a fertile synthesis instead of sterile analysis. Anatomy should be closer to physiology, biologists and anatomists have repeated insistently; it should give up the study of particularities, and be dynamic instead of static. This desire for dynamism in the study of form has manifested itself in dissection halls as well as in artists' studios.

Old anatomists studied the human body from the standpoint of its projection in space, leaving to physiology the study of its projection in time. (17)

The anatomist of the last century, just like the artist, studied the human being as a self-enclosed whole. The focus was therefore on causality, on studying the living being as a geometric figure, as something already given, in the platonic sense. It was a mechanistic static conception which, translated into artistic terms, meant the purely aesthetic realization of a stylistic idea. Human beings were thought of in terms of platonic ontology, matter being modelled after the eternal archetype of ideas.

The new anatomy thinks of the human being as pure process, and it is interested as much in his origin as in his future development and the meaning of his biological changes. It is an arithmetical, finalistic view which places focus on the living being as a physiological process; it is a teleological notion in the Aristotelian tradition, considering every being to be made up of matter which is a potential, and form which is the act or entelechy. This conception has been translated into art through the study of human form subject to a biological conformity to plan and with a dynamic tendency to some end. As against the classical notion of form as an idea, modern art posits form as a function or as an end in itself.

Abstract art, like modern anatomy, accepts the fact that form can be an end, a basis of function, or function itself, preceding structure. For it is no longer conceived as a simple manifestation of the living being in space, but rather as function projected into time. The new artistic morphology is above all physiology. The modern artist can no longer think of pure spatial geometry separated from time, any more than he can conceive of pure temporal physiology liberated from space; for that reason, he has incorporated form and function into his art as...
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supreme manifestations of the living being, just as matter and energy are the manifestations of the inanimate.

Practically speaking, this has meant a revolution in the art of looking at living beings. Bones, muscles, and other anatomic structures are still in the positions they always were, but the point of view from which we regard them is no longer what it was. The object observed has not changed; what has changed is our own vision. Human form is no longer for the abstract artist a mere expression of the living being, or the result of a spatial scheme, but pure dynamic process, motion in time. That is why the abstract artist has given up the staticism of classical art which prevented him from seizing the functional realities of form, and has become eminently dynamic, constantly striving after form as function in time and space.

NOTES

(12) The changes in physics have led to similar changes in biology and psychology. Medicine today is more interested in inorganic chemico-energetic changes than in crude neurological alterations. The unity of matter and energy is not only accepted for the universe but also for the human body.

Comparison was made by Langdon-Brown between energy originally developed in the zygote, which provides the impetus that carries the organism like a bullet in its passage through life, to an explosion of atomic energy. At the moment of birth, there only remains 2% of the initial impetus which decreases constantly because it is subject to thermodynamic laws although the functioning of life maintains that evaporating energy at a useful level.

The organic and nervous tissues, like the molecular aggregates which they are, withstand the changes of the individual molecules of their surroundings, but are subject to the statistical laws of physics.

Modern physics accepts the human body as a continuum of matter and energy, that like electrons charged with energy, only varies continually, according to the quantum theory, and moves, according to Schroedinger, in a continuum of space-time of four dimensions. Each organic system has a quantity of energy the level of which changes by that mysterious event which is called a quantum leap. Each molecule of said system is made up of atoms and has a certain stability and its configuration does not vary until it receives from without the necessary energy for said leap. Said difference of level determines quantitatively the degree of stability of a molecule.

These conditions exist in the human being from before birth. Modern physics considers the possibility that a gene or fiber of chromosome may be an aperiodic solid. This conception of a well-ordered association of atoms with sufficient resistance to preserve its order permanently, and to make isometric adjustments, may perhaps explain the mystery of how the diminutive particle of the nucleus of the fertilized egg contains, as if written in a tiny code, the entire future development of the organism.

After birth, life continues as an incessant biochemical change, although it maintains its unity, integration and internal organization against attacks from without.

It is interesting to note that fundamental differences between living and non-living organisms have been abolished. Small viruses are considered by chemists as molecules and by biologists as cells, to which the quantum theory may also be applied.

(13) Human life, it has been said, has developed through the seizure of "levels of energy." Up to 5000 B.C. man limited himself to assimilating this solar energy through edible animals and plants, resulting in a very rudimentary culture. About 7000 years ago the agricultural man appeared, cultivating his fields with edible plants and thus absorbing more energy, a method which in 1000 years created vast civilization. This stage lasted 6000 years. In 1700, in western Europe, "fossil fuel"—that is, coal, oil, and gas—was being used. A new culture came to be when the first atomic bomb was exploded in Alamogordo, New Mexico, July 16, 1945, six years after Otto Hahn and Strassmann discovered the fission of the heavy nucleus of uranium. This scientific event, which had immediate practical applications in the manufacture of radioactive tracers, the treatment of cancer, the prolongation of life, and conversion of hydrogen into helium, will make possible the seizure of even more energy.

(14) The strange game of hide-and-seek present in so many surrealistic paintings, for example, in Dalí and Tchelitchev, like images of beings infinitely multiplied, is an allegorical representation of the psychological self-image broken also by the psychoanalytical impact. It is the mind looking for itself.

(15) They are sketches which contain implicit movement and are surrounded by an indeterminate space. They have been used on posters, advertisements, furniture, architecture and ceramics. Because they seem cut from a large canvas hammocks and chairs, and in show-windows with tremendous success.

(16) According to Lain Entralgo, it is significant that anatomic nomenclature begins in history as numerical and expressing magnitude (dudumum = twelve fingers), and in the Renaissance changed to symbols of arrangement and relation (delta = delta).

(17) An analogous division might be applied historically, as the study of the human being in his spatial projection has been the subject of geography, just as the human being in his dynamic projection has been the subject of history.
does this ensure efficient connections, but confronts neighboring buildings with the smallest possible built-up area.

All offices needed for Unesco's permanent operations are grouped in a single dominating structure which may be readily approached through the Main Lobby accessible from the main entrance at the N, serviced by the best transport facilities.

All conference facilities are grouped around one main element, the lounge, where the delegates may meet informally. The lounge should serve in a way similar to the Waiting Hall in the Paris Palais de Justice. It will be a vital, active center, one of the project's characteristic elements.

Round this lounge are grouped the Plenary Hall, the Commission and committee rooms, the Executive Board rooms, the Delegates' Patio, the Conference Secretariat and the Press, Radio and Television facilities.

The restaurant, with its bar and cafeteria, and the library are placed between the Office Building and the conference area.

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The Documents and Publications Service along with the Mail Dispatch Service has been regarded as an industrial organization with a smooth flowing production line on one level. It is adjacent to the loading platform for delivery and dispatch by truck. The great horizontal extension of these as well as the storage services dictate their location under the Central Building equally horizontally composed.

The natural slope of the ground is utilized to provide several horizontal superimposed levels with maximum natural light and ventilation.

The centrally-located truck loading platform is reached directly by an underground ramp, which is also the access to the 107-car underground parking area and to the garage.

The Structure

The design emphasizes the plastic qualities of reinforced concrete, which is used structurally throughout.

The frame of each section of the building reflects a careful analysis of the factors of the structure's own weight, flexibility and economy.

In order to attain the utmost openness of the ground floor, the Office Building is carried by eight V-shaped supports and the two solid enclosures of the staircases and lifts. On the upper floors, the pillars are placed at regular 20-foot intervals.

The floor construction of the Central Building, designed for heavy loads, is carried by large crossbeams, supported by 24 foot intervals. The floorslabs are reinforced by an arrangement of isostatic beams (system Nervi-Bartoli-A. Arcangeli).

Over the ground floor the longitudinal span of the structure is increased to 68 feet. This permits the accommodation of the large interior spaces and provides flexibility for later changes.

The Main Lobby is covered by a concrete shell, reinforced with a system of geometrically arranged beams, visible from below. This shell is supported on the N by a parabolic arch, on the S by the main slab of the floor above, without any inner columns. The roof of the Plenary Hall has a pattern of diagonal running girders, with a wall to wall unobstructed span.

The advantage of giving the hall structure is that it permits a complex system of acoustic panels to be suspended from the girders and placed at the exact angles and points required for the best sound effects.

Materials

The project employs "Roman travertine" for cut stone surfaces, rubble stone masonry for retaining walls and bush-hammered concrete with special aggregates for the exposed parts of the structure.

Sliding windows and glass walls are clear plate glass. Exterior sun filters on the south and east facades of the Office Building are of heat absorbing glass.

Exposed edges of floor slabs are Ardoise or similar stone. The same material is used for the stone projections which protect the window openings. The aluminum windows are anodised silver, the railings black.

The Piazza is paved with stone and the drives are concrete.

The acoustic panels of the outdoor theatre are thin reinforced colored concrete. The shell of the Main Lobby is roofed with
mosaic tiles. A multicolored composition of plants and stone chips covers the roofs of the Central Building and the Plenary Hall.

Special attention will be given to the problem of flexible partitions and to the acoustic treatment of various elements of the project.

Wherever possible, natural ventilation and radiant floorheating is employed. The inside areas without windows, the movie theatre, the Commission and Committee Rooms, the Executive Board Rooms, the studios for radio and television and the Plenary Hall are air-conditioned.

The parking areas are planted with sycamore trees. On each side of the main entrance there is a dropped level lawn with trees and bushes. A similar treatment is given to the Central Patio. The pergola over the Restaurant terrace is covered with vines.

The Delegates' Patio and the Small Patio, being walled-in areas with concrete ground, will have plants in containers.

**COMPETITION**

Ponderosa Pine Woodwork has announced an architectural design competition for an interior panel door design. Approved by the Committee on Architectural Competitions of the American Institute of Architects, the competition closes with the mailing date of April 27, 1953. The sponsor is an association of manufacturers of Ponderosa Pine panel doors and other woodwork and is seeking a fresh approach in the application of panel door construction to progressive design. Its purpose is to obtain designs for interior panel doors which are suitable for mass production methods consistent with current architectural standards.

Robert H. Morris, general manager of the sponsoring organization, has stated that a significant trend suggests that there are further unexplored design possibilities in the panel door. Through this competition it is hoped new advances will be made and added to the many refinements already contributed by generations of craftsmen designers.

**PRODUCT LITERATURE**

continued from page 13

motor, suction box in one unit; automatic ceiling shutter operated by wall switch; shutter, trim finished in light ivory baked enamel; available in 4750 and 6000 CFM capacities; other models in capacities of 7600 and 977 CFM; air delivery ratings certified.—Robbins & Myers, Inc., 387 South Front Street, Memphis, Tennessee.

(142a) Residential Exhaust Fans: Complete information installation data Luf Niteair Rancher exhaust fan for homes with low-pitched roofs; quiet, powerful, reasonably priced, easily installed; pulls air through all rooms, out through attic; available in four blade sizes; complete package unit horizontally mounted with belt-driven motor; automatic ceiling shutter with aluminum molding; automatic time switch optional; rubber cushion mounted; well engineered, fabricated.—The Lau Blower Company, 2017 Home Avenue, Dayton 7, Ohio.

(994) Heating Facts: Remarkably well prepared 20-page question-and-answer brochure "How to Select Your Heating System" featuring Lennox heating equipment; now available; practical, readable information by world's largest manufacturers; should be in all files.—Lennox, AA-S, The Lennox Furnace Company, 974 South Fair Oaks Avenue, Pasadena.

* (143a) Combination Ceiling Heater, Light: Comprehensively illustrated information, data on specifications new Nu-Tone Heat-a-lite combination heater, light; remarkably good design, engineering; prismatic lens over standard 100-watt bulb casts diffused lighting over entire room; heater forces warmed air gently downward from Chromalox heating element; utilizes all heat from bulb, fan motor, heating element; uses jack-uptube; no transformer or relays required; automatic thermostat controls optional; ideal for bathrooms, children's rooms, bedrooms, recreation rooms; UL-listed; this product definitely worth close appraisal; merit specified CSHouse 1952.—Nu-Tone, Inc., Madison and Red Bank Roads, Cincinnati 27, Ohio.

* (827) Kitchen Ventilating Fans: Well illustrated 4-page folder featuring new Nu-Tone kitchen ventilating fans; wall ceiling types; more CFM than competitive models in same price range; only screw driver needed to install; quickly removable grille, lever switch, motor assembly rubber mounted; well designed, engineered; merit specified for CSHouse 1952.—Nu-Tone, Inc., Madison and Red Bank Roads, Cincinnati 27, Ohio.

**LANDSCAPING**

* (63a) Plants, Landscaping, Nursery Products: Full color brochure most complete line of plants, including rare, trees, nursery products in Southern California; fully qualified landscape service, consultation both in field and in nursery; firm chosen to landscape six CSHouses; best source of information.—Evans & Reeves Nursery, 255 South Barrington Avenue, Los Angeles, Calif.

LIGHTING EQUIPMENT

* (34a) Accent and Display Lighting: Brochure excellently designed contemporary Amples "Adapt-a-Unit" Swivel-lie fixtures; clean shapes, smart appearance, remarkable flexibility, ease of handling; complete interchangeability of all units, models for every type of dramatic lighting effects; includes re­ceased units, color information on this equipment belongs in all files.—Amplex Corporation, 111 Water Street, Brooklyn 1, New York.

(969) Architectural Lighting: Exceptionally well prepared 36-page catalogue architectural lighting by Century for stores, display rooms, show windows, restaurants, museums, churches, auditoriums, fairs, exhibits, hotels, night clubs, terminals; features optical units, dialight, decorative units, reflector units, fluorescent units, spots, floods, strips, special signs, color media, dimmers, lamps, controls; full data including prices; worth study, file space.—Century Lighting, Inc., 521 West Forty-third Street, New York 36, New York.

(782) Fluorescent Luminaries: New two-color catalog on Sunbeam Fluorescent Luminaries; clear, concise, inclusive; tables of specifications; a very handy reference.—Sunbeam Lighting Company, 777 East Fourteenth Place, Los Angeles 21, Calif.

* (119a) Recessed and Accent Lighting Fixtures: Specification data and engineering drawings Prescolite Fixtures; modern fixtures for residential, commercial applications; exclusive Re-lamp-a-lite hinge; 30 seconds to fasten trim, install glass or re­lamp; exceptional builder and owner acceptance, well worth considering.—Prescolite Company, 862 Bancroft Way, Berkeley 2, California.
FEBRUARY 1953

(1964) Bank, Office Lighting: Brochure planned lighting for banks, offices; covers recent advances in standard lighting equipment for architectural, illuminating results and influences properly maintained foot-candle levels to improve efficiency. High working accuracy, add visual comfort; data costs, installation, maintenance; well illustrated; source of information on subject.—Pittsburgh Reflector Company, 452 Oliver Building, Pittsburgh 22, Pa.

(1910) Theatrical Lighting: Smartly designed 48-page catalogue showing best in contemporary theater lighting for state, exhibits, small displays, pagents, fashion shows, dance halls, cabarets, night clubs and fairs by Century; light, special control equipment, accessories; one of most complete workbooks published, completely illustrated and with price breakdown in a must.—Century Lighting, Inc., 521 West Forty-third Street, New York 36, New York.

(299) Architectural Lighting: Exceptionally well prepared 36-page catalogue architectural lighting by Century for戏 window show, rooms, windows, restaurants, museums, churches, auditoriums, fairs, exhibits, hotels, night clubs. Many illustrated technical data, charts, price, accent, spot, remarkably clean design, sound engineering; one of most complete Architectural Lighting Fixtures: Brochure, complete illustrated specification data. Complete range of fixed and adjustable recessed units, dome lights, lamms; articulate new shapes in modern finishes, red lights; new concepts in lighting. Wall mounted candleabra fixtures.—Showroom: Green Lighting, 8236 West Third Street, Los Angeles, California.

MISCELLANEOUS

(360) Telephones: Information for architects, builders on telephonic installations, including built-in data.—P. E. Dvorsky, Pacific Telephone & Telegraph Company, 740 South Olive Street, Los Angeles 55, Calif.

(164a) Wallpapers: Information Katzembach and Warren latest "architectural" wallpaper collection. This sculpture wallcovering is a three-dimensional moulded material of great durability, fade-proof, waterproof; especially worthy are hand-screened papers simulating materials: Roman Brick, Ancient Mould, and Marble. Most interesting papers include Spanish Doors and Mirage of Mexican and Guatemalan inspiration. Katzembach and Warren, Inc., 575 Madison Avenue, New York 22, New York.

(254) Sash and Trim Colors: Folder—strong, durable sash and trim colors. In treated oak, pine, maple. Special pigments combined with specially formulated synthetics; won't check, crack with normal expansion or contraction, retain gloss, flows easily but won't run, sag; good hiding capacity; worth investigation.—Jefferson Boulevard, Los Angeles, Calif.

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

(938) Paint Information Service—authoritative, complete—especially for Architects. Questions to all your finish specifications featuring P-E built-up units. All answers are to individual problems; no general tip, but fact, well grounded in practice. Used on the West's most important jobs. Write to General Paint Corp., Architectural Information Department, 2627 Army Street, San Francisco, Calif.

(178a) Echwood and Echwall; textured wood paneling for homes, furniture, offices, doors, etc. Echwood is plywood; Echwall is redwood lumber T & G preassembled for fast, easy installation; difficult to describe, easy to appreciate.—Davidson Plywood & Lumber Company, 136 East Washington Boulevard, Los Angeles, California.

(175a) Plywood panels: Brochure. Full information packed 128-page manual built-up roof specifications featuring P-E built-up roofs; answers any reasonable roof problem with graphs, sketches, technical data.—Pioneer-Flintkote Company, 5500 South Alameda Street, Los Angeles, Calif.

PLUMBING FIXTURES, ACCESSORIES

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

ROOFING

(1995) Aluma-Life Roofing: Folders, specification data light-weight Aluma-Life roofing; uses aluminum foil, 99.4 percent pure, between cotton bas layers with a coating of marble or granite chips of selected colors; rated "A" by American Fire Underwriters, approved by FHA; hurricane specifications; insulation value equals 2 R of mineral wool; particularly good for modern design.—Aluminum Building Products, Inc., Route 1 Atlantic Boulevard, Jacksonville 7, Fla.

(95) Roof Specifications: Information packed 128-page manual built-up roof specifications featuring P-E built-up roofs; answers any reasonable roof problem with graphs, sketches, technical data.—Pioneer-Flintkote Company, 5500 South Alameda Street, Los Angeles, Calif.

SASH, DOORS AND WINDOWS

(522) Awning Windows: Brochure Gate City Awning Windows for homes, offices, apartments, hotels; controlled by worm and gear drive operating two sets of raising mechanisms distributing raising force to both sides of sash; standard and special sizes; contemporary design.—Gate City Sash & Door Company, 15 Southwest Third Avenue, Fort Lauderdale, Fla.

(365) Doors, Combination Screen-Sash: Brochure Hollywood Junior combination screen-metal sash doors; provides venti-
42

(16a) Wardrobe Sliding Doors: Full information, specification data Glide-All sliding doors for low-cost, highly functional wardrobes, closets; floor-to-ceiling installation eliminates stubbing, framing, and plastering time; easily adaptable to less-than-standard heights; smoothly-finished extruded aluminum alloy door track, threshold type; vapor finished aluminum allow channel top track guides and conceals rollers; quiet, smooth, dependable operation; easily installed. Suited for domestic or commercial buildings; one of the best products in field.—Julie Meyn, Jr., 4390 Van Nuys Boulevard, Sherman Oaks, Calif.

(901) Hallow Core Flush Door: Brochure Paine Rezo hollow core flush door featuring interlocking air-cell grid core combining the strength of cross-banded plywood with tightness in weight; accurately milled and framed together, and overlaid with matched resilient, high gloss phenolic melamine panels: one of best products in field.—L. J. Carr and Company, P. O. Box 1282, Sacramento, Calif.

(16b) Horizontal Sliding Glass Door-walls: Unique 8-page brochure—detail and isometric drawings; also 16-page illustrated editorial reprinted from Arts and Architecture; installation and full scale cross sectional details; pioneer and leading producer; top roller-hung and bottom roller types: many exclusive important engineering features; sealed against wind and water; available in hot-dip galvanized, or bonded under zinc chromate primer; Thermoglas, Thermopane and T window units; minimal maintenance; favored by leading contempoary architects; carefully engineered; quality product; completely factory assembled—no loose parts.—Steelbilt, Inc., 4001 E. Washington Blvd., Los Angeles 22, Calif.

(117a) Stock Sash: Information new Kawneer Company: designed for modern buildings needs; new extruding assembly; attractive appearance; resilient grip principle insures maximum safety; reliability; strong steel clip minimizes breakage due to sudden shocks, high winds, buildings setting; data belongs in all files.—The Kawneer Company, 1105 North Front Street, Niles, Mich.

SOUND CONDITIONING

(800) Acousti-Celotex Sound Condition-ing: Products for every sound condition-ing problem; Flushetons, a new and "different" random-fused surface, gives a beautiful new pattern and style to Sound Conditioned ceilings. Is high- sound absorbent, lightweight, rigid, incombustible. Suited for commercial or domestic buildings; Gains Ferguson, The Celotex Corporation, 120 So. La Salle St., Chicago 3, Ill.

STRUCTURAL BUILDING MATERIALS

(970) Douglas Fir Plywood: Basic 1950 catalog giving full data Douglas Fir Plywood and its uses; delineates grades, features construction uses, physical properties, highlights of utility: table—specification data; undoubtedly best source of information, belongs in all for space-saving closurs and Wood Association, Tacoma Building, Tacoma 2, Wash.

VISUAL MERCHANDISING

(152a) "Effective Use of Space": New 80-page illustrated brochure featuring SPACEMASTER line of standards and complete units designed and created out of the same materials as modern homes makes many of them ideal for shelving in homes and offices where movability is required; Complete patterns, charts, information, installation. Write for free copy of Catalog 50-5. Dept. AA, Reflector-Hardwood Corporation, Western Avenue at 22nd Place 225 West 34th Street, New York 1, N.Y.

SPECIALITIES

(106a) Accordion-Folding Doors: Brochure, full information, specification data Modernfold accordion-folding doors for space-saving facilities; permits flexibility in decorative schemes; uses no floor or wall space; provides more space; permits better use of space; viny, durable, washable, flame-resistant covering in wide range colors; sturdy, rigid quiet sheet working frame; sold, serviced nationally; deserved close consideration; merit specified CSHouse 1952.—New Castle Products, P. O. Box 823, New Castle, Ind.

(937) Magnetic Tape Recorder: Brochure high fidelity magnetic tape recorder custom installation in studies, schools, houses, industrial plants; instantaneous monitoring from tape while recording, separate heads for high frequency erase, record, playback; well engineered, reasonably priced.—Berlant Associates, 9215 Venice Boulevard, Los Angeles 34, Calif.

(182a) Colored Cement Art Tile for floors and walls, either indoors or out. Made by hand but in precision molds insuring accuracy and uniformity of size, with hydraulic presses producing 110,000 pounds of pressure per tile. Age and use increase both durability and beauty of this tile. Easily cleaned, requires no waxing, is not slippery, absolutely color-fast, linen-proof, water-proof, and resistant to acid. Any design or color can be custom fabricated, while hundreds of standard patterns and colors combinations are available. Indestructible beauty for floors, walls, walls, walls, carpet, patios, show rooms, foun­tain lawns and walls, one of best products in field.—Van-Packer packaged chimneys; one of best products in field.—Mississippi Glass Company, 88 Angelfica Street, St. Louis 7, Missouri.

(116a) Package Chimneys: Information Van-Packer packaged chimneys; economical, saves space, hangs on ceiling or floor joists; installed in 3 man-hours or less; immediate delivery to job of complete chimney; meets FHA requirements; worth contacting; merit specified CSHouse 1952.—Van-Packer Corporation, 22 West Adams Street, Chicago 3, Illinois.

(375a) Plastic Screen Cloth: Brochures, samples Lumite plastic cloth; imperious to corrosion, stains, wear, bulging; does not need painting, comes in colors; cleans with damp cloth.—James W. Veeder, Chiocop Manufacturing Corporation, 540 Worth Street, New York 13, N. Y.

(23a) Swimming Pools: Well prepared book "Planning Your New Swimming Pool" giving full data Paddock swimming pools; nationally known, widely accepted; one of best sources of information on subject.—Paddock Swimming Pools, 8400 Santa Monica Boulevard, Los Angeles 46, Calif.

(811) Louvered Ceilings: Folders Granigrid louvered ceilings for contemporary interiors; non-glare illumination, contemporary styling; aluminum, easy to install, maintain; can be used over entire ceiling; full installation, lighting data; well worth investigation.—The Kawneer Company, 1105 North Front Street, Niles, Michigan.

(9a) Automatic Kitchen Ventilators: Folders Fasco automatic kitchen ventilators; keep kitchens clean, cool, comfortable; expel cooking odors: outside wall, inside wall, "ceil­­e-n-wall" installations; completely automatic, easy to install, clean; Fasco Tur­bo-Radial impeller; well engineered, well designed; merit specified for CSHouse 1952.—Fasco Industries, Inc., Rochester 2, N. Y.
ECONOMICAL: Hermosa Tile costs no more than many less acceptable materials, yet it provides maximum utility - minimum maintenance.

VERSATILE: Hermosa Tile is equally at home in kitchen, bath, lanai, or living room. It fits both provincial and contemporary concepts.

DISTINCTIVE: Hermosa Tile's many decorative themes and wide color range provides a springboard for imaginative architects.

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FOR A
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