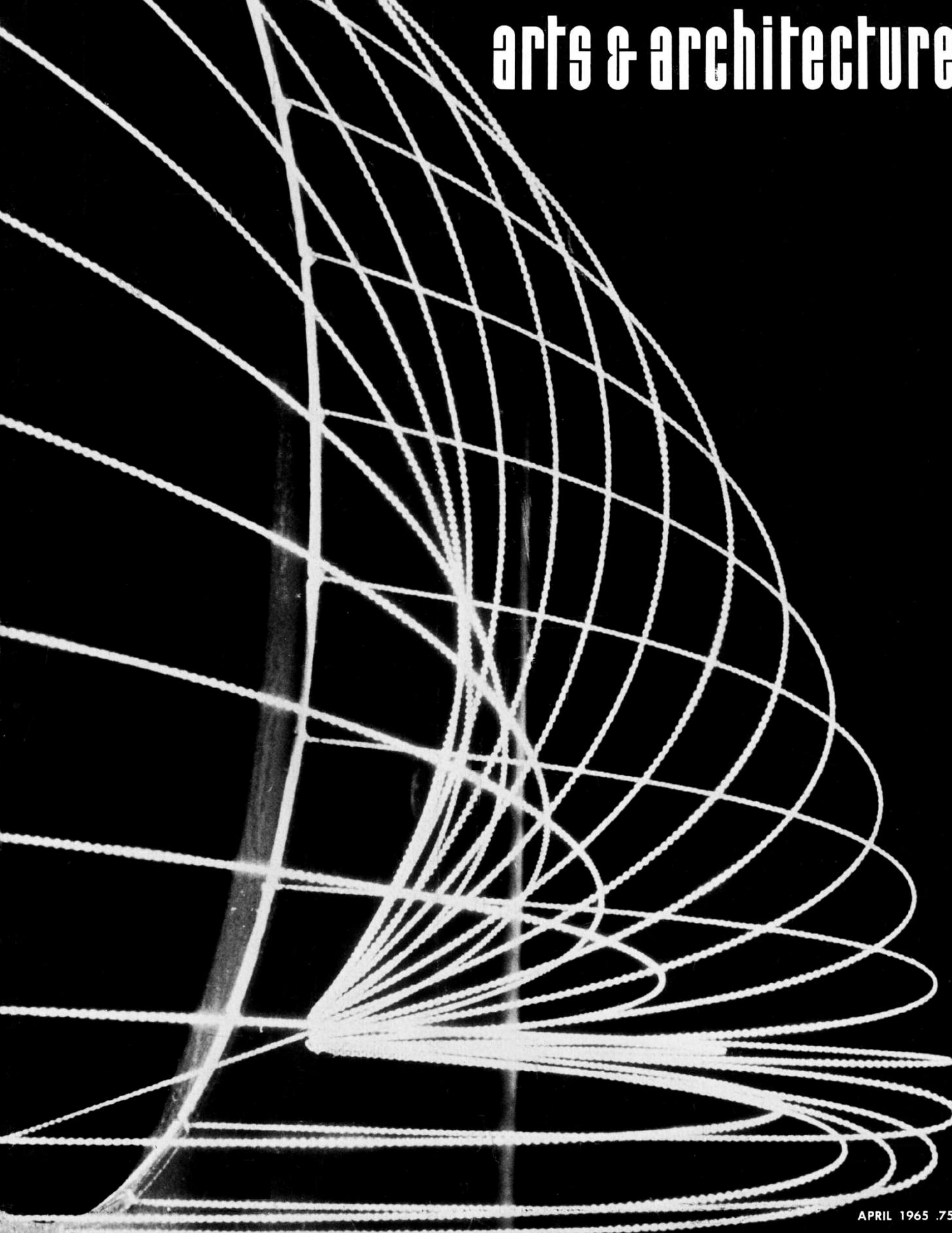


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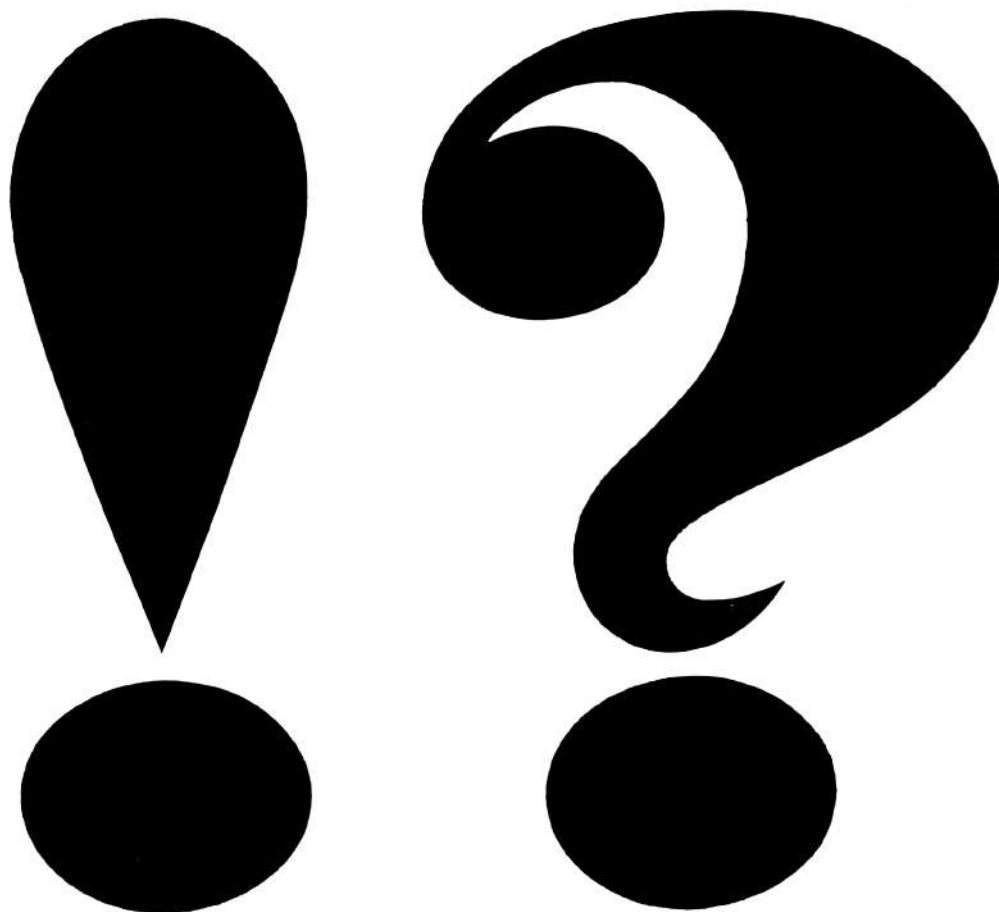
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Cover: Detail from
"Lightweight Structures"
 by Frei Otto, (see page 28).

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ART

DORE ASHTON

R. B. KITAJ AND THE SCENE

"To understand the role of esthetic theory is not to conceive it as definition, logically doomed to failure, but to read it as summaries of seriously made recommendations to attend in certain ways to certain features in art." — Morris Weitz

Whatever esthetic theory underlies the work of R. B. Kitaj, it is safe to assume that Kitaj has little confidence in ultimate definition and that his paintings, collages and assisted found objects are what Morris Weitz calls "seriously made recommendations."

The kind of openwork approach advocated by Wittgenstein and echoed by Morris Weitz seems to be in Kitaj's blood. He is a born exegete, isolating aspects of existence that interest him and elaborating fragment upon fragment with the persistence of a British Museum researcher. A title of one of his works, "His Cult of the Fragment," may refer to someone else, but judging from Kitaj's work, he is not exactly free from a similar cultism.

In some ways, Kitaj is like Nabokov, particularly when Nabokov produces a masterpiece of footnotes such as his early commentary on Pushkin's *Eugene Onegin* and, on the other hand, a masterpiece of satire on the footnote mentality as in *Pale Fire*. Both the serious recommendation and the instant self-criticism are present in Kitaj's giant collage — his *oeuvre*. The collection of varied works, ranging from academic fragments of nude drawing to crowded collages, in his exhibition at the Marlborough are seen most clearly as a kind of work-in-progress report on a superwork. That superwork, I am led to believe, is not yet clearly envisaged by the artist. But the incidental notations on view are patent hints that the individual work is only part of the greater scheme.

Perhaps scheme is not quite the term since a scheme is a fixed concept and Kitaj studiously avoids the static. Perhaps it would be more accurate to speak of Kitaj's movement toward a group of ideas —

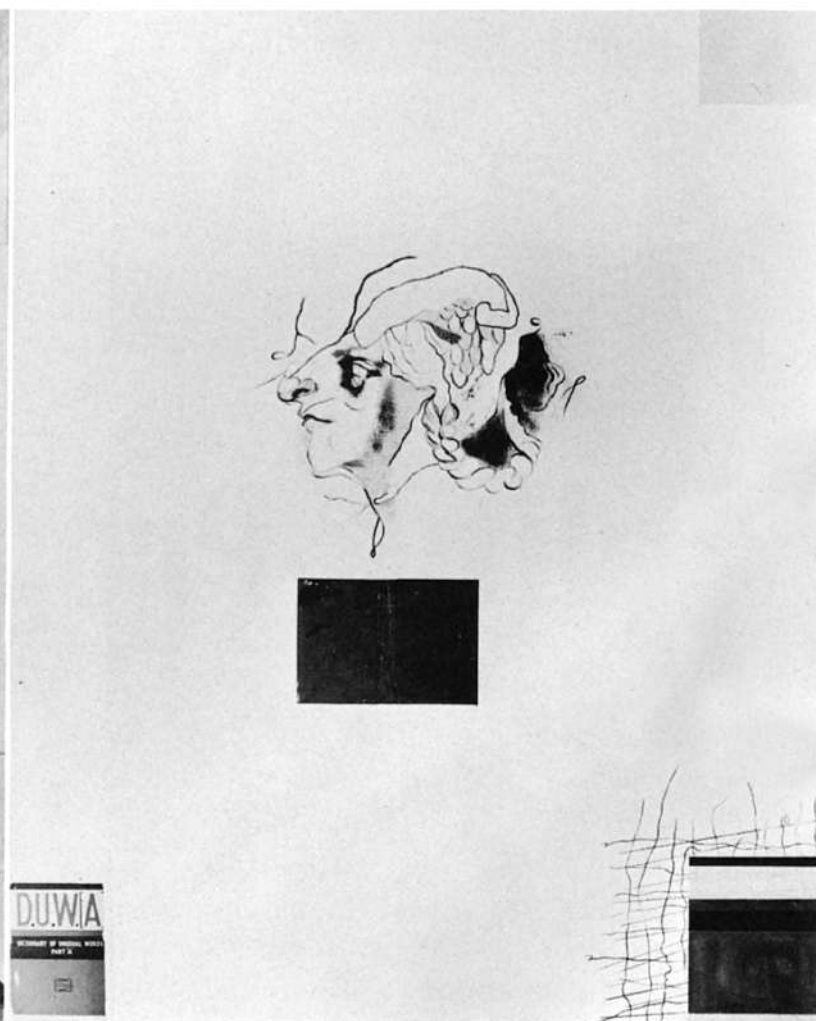
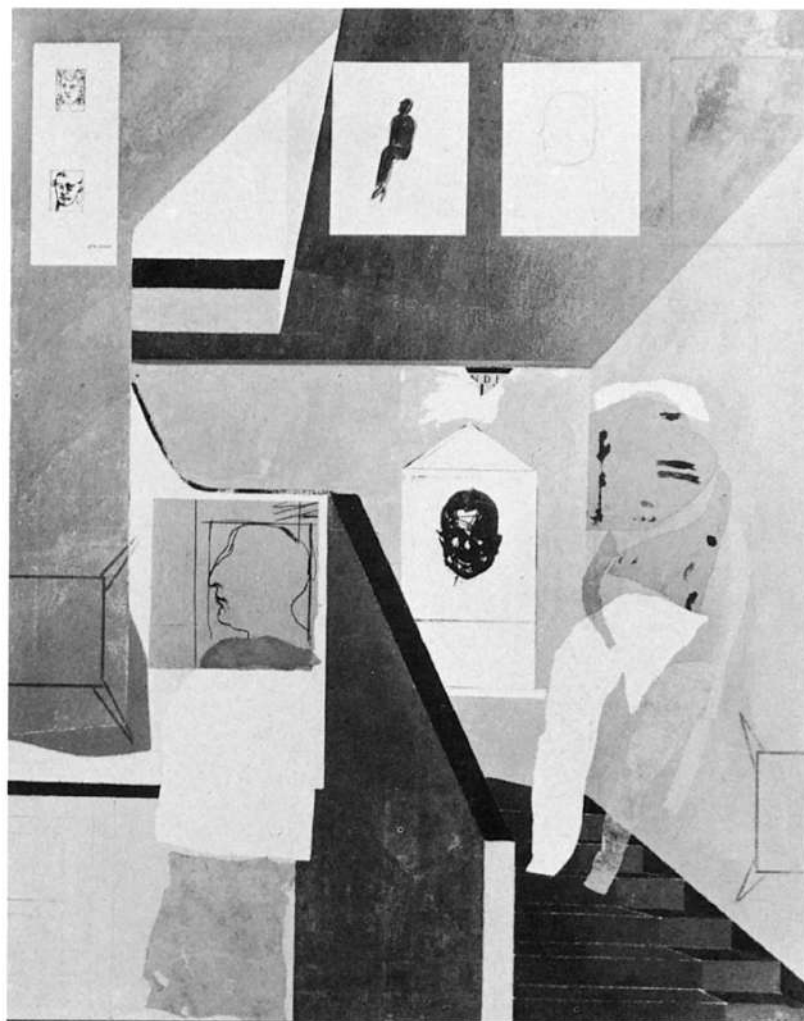
a movement which presumably will take a form sooner or later.

Looking at Kitaj's work, crowded as it was with extrinsic references, boiling with the rage to tell, to talk, to comment, to make glosses, I thought again about one of my favorite books, Valéry's "L'Idée Fixe." Not so much about the actual dialogue, but about Valéry's triumphant coinage of the word "omnivalent." The omnivalent attaches to everything, or is attracted to everything. Kitaj has a marked preference for omnivalence. In fact, what struck me first, and what I liked best about his show was the sense of proud license it exudes. I felt that this young man — he is in his early thirties — permits himself great freedom. He will go anywhere his probing mind and imagination take him without shame. Whatever falls into his ken — and mostly printed documents seem to fall into his ken — he makes the most of. There is much to be said for this magpie climate of mind.

Since Kitaj doesn't flinch in the face of literary content — far from it — his work has a synthetic quality in the way a film has a synthetic quality. In fact, I suspect that the influence of films is far greater in Kitaj's work than the influence of previous painting. He is his own scenarist, his own editor, his own costumer and his own director. Ever since Munch discovered the strange and effective stop-motion image and incorporated it in his own painting, artists have been watching films as sources for formal changes in their paintings. Kitaj may not consciously use the film-maker's montage psychology (though I suspect that nothing is quite unconscious in Kitaj) but he has decidedly been tempered by it.

Here I'm not speaking of the merely plastic conception of montage, but the philosophic approach as stated explicitly by Sergei Eisenstein. Eisenstein foresaw the danger of mere information-feeding in films and stressed the possibilities of visual *enjambement* as the film, frame by frame, unfolds.

Kitaj and other artists such as Hockney and Rauschenberg have heeded the montage theory, offering selected fragments as "movements" toward an ultimate thought. The thought, of course, is formed by the spectator as much as by the creator and may vary depending on many contributing factors. For instance, an intelligent illiterate would find a lot to think about in Kitaj's paintings, but his thoughts would necessarily differ from those of the intellectual fa-



miliar with the references. On the other hand, it is quite possible that Kitaj himself, obsessed by fragmentism, is not thoroughly familiar with everything he quotes or alludes to. Here again, the intellectual guessing game that he sets in motion is a form of montage.

A title, a pasted photograph, a painted phrase, an entire poem, a political poster — any of these can serve Kitaj as the germ that will set himself and others in motion. The contemporary esthetic of John Cage who says he merely sets a process in motion applies to some degree to Kitaj's work. I have read British critics who chide him for his display of erudition, his childlike dependence on authoritative words and association-drenched symbols. But this is an unfair criticism. Why shouldn't the title of a significant book serve as well as a nude model or a still-life as pretext to paint?

Kitaj makes no pretense. His paintings often need their titles, and appear to have been inspired by his literary appetite right from the beginning. One can read a bright young man's intellectual peregrination in his work. For instance, the earliest painting on view is a tiny oil, cleanly and thinly painted, representing a vaguely characterized young woman. The title, "The First Terrorist," explains her lank straight hair, but not much more about the painting itself. It does, however, call to mind a young man's first encounter with Turgenev and Nihilism, or perhaps his first experience with anarchist literature. A few years later we find him scouring Sorel's "Reflections on Violence" and later anarchist literature. Out of this comes a sketchy oil on canvas with collage drawings in which Kitaj's montage principle is clearly enunciated. In a disparate series of vignettes he relies on both the reading impulse (newspaper columns and written fragments) and the natural forming tendency of imaginative vision to produce a visual conundrum. By leaving a few enigmatic empty spaces circumscribed with thin lines; by painting pictures within pictures, Kitaj joins a long line of symbolists. Explicitness and ambiguity, literature and pure painting are brought together in carefully weighed juxtapositions.

Sometimes Kitaj tips the balance in favor of plastic coherence and I admit that I prefer his paintings *qua* paintings to his bibliographical melanges. Such is "Interior/Dan Chatterton's Town House" of 1962. Here Kitaj builds a provocative composition, playing the perspective of a staircase against a flattened fantasy space above.

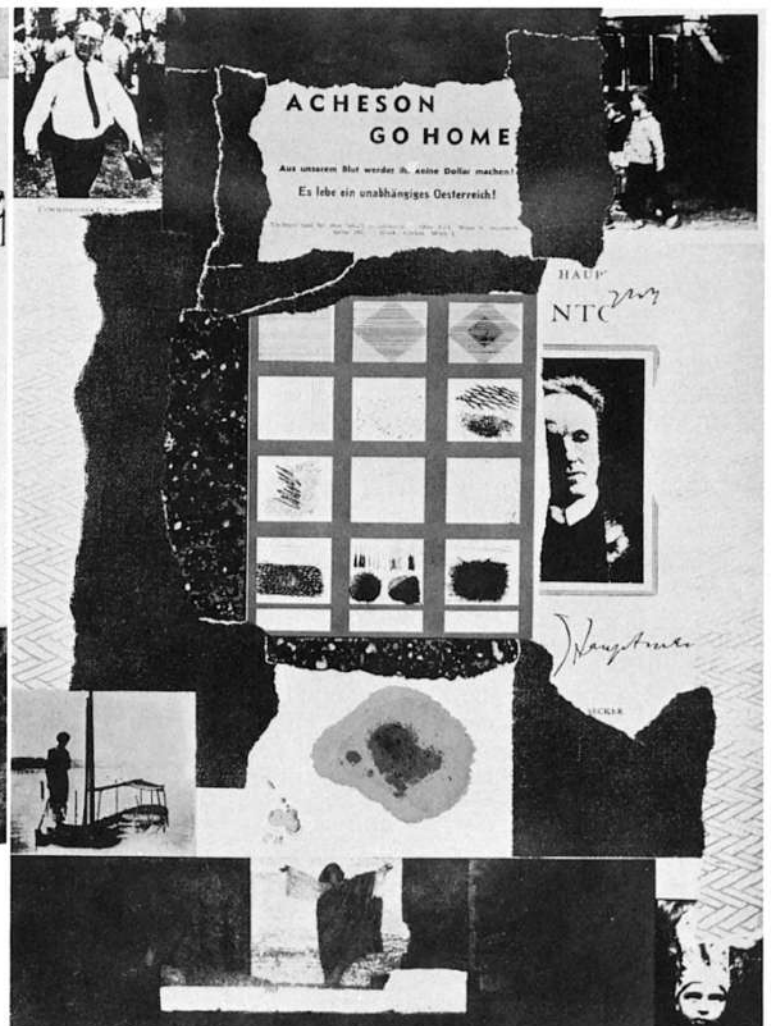
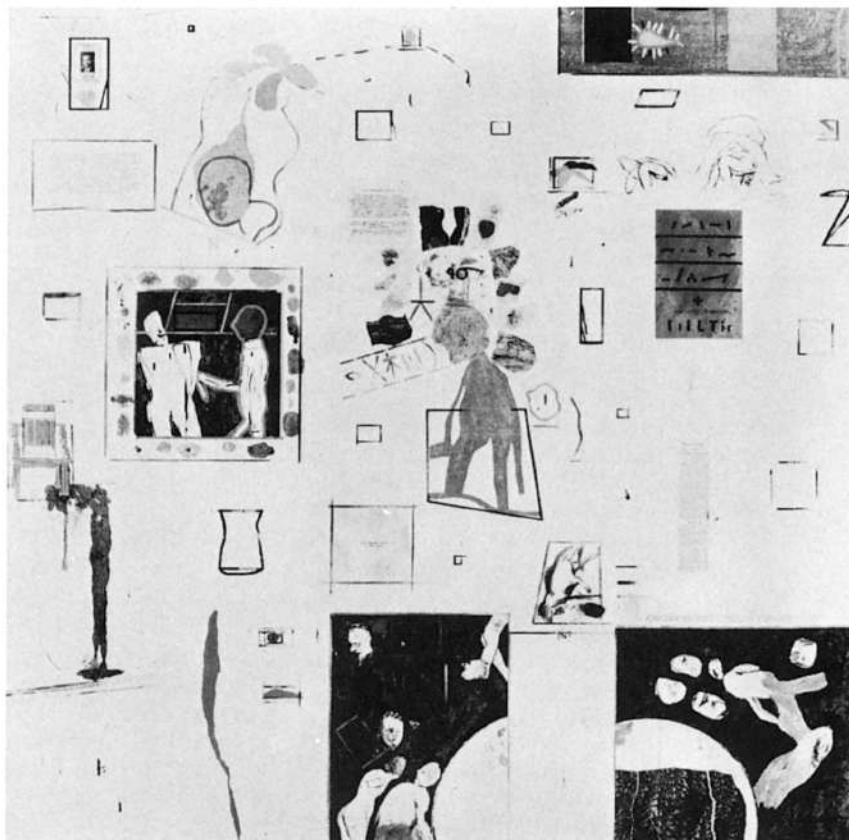
Complicated doorways and panels are suggested in a bare schematic way, while the inhabitant of the house emerges in a cartoon-like development of framed images and empty frames. Here Dan Chatterton and his myth — whoever he may be — emerge less from the figurative references than from the ensemble of colors and differing prospects.

At times Kitaj ventures into irony, but like most Americans, he is not quite at home with it. His "Kennst Du Das Land" inspired by Goethe's lovely description of Italy, is a quasi-painting in the sense that he falls into an illustrator's idiom in sketching German machine gunners while maintaining an ambiguous attitude in the vignettes on the upper half of the painting. Irony falls between title and illustration, but not in the handling of the painting itself.

In much of the most recent painting, Kitaj seems to be straining to use the vernacular much as contemporary poets do, mixing popular figures of speech with elevated literary talk, only in his case, he uses popular images and mixes them in sophisticated compositional schemes. He uses a spare drafting technique, flattening his figures as much as possible. Color is keyed high, mimicking the glossy reproductions in slick magazines. Even in a pure painting, such as "The Apotheosis of Groundlessness," a view in various perspectives of a large garage-like shed, Kitaj remembers the thin, cold colors of advertising and his image has a quality of high-class illustration.

I'm sure this is deliberate. Kitaj's need to comment and recommend is overweening. Most of his paintings strike me as commentaries in one way or another on what is called "The Scene." Out of the confusion of idioms, many of which have been developed on the marketplace, Kitaj chooses those which are typical of the mass media and tries to turn them to his own ends. An undertone of anger and serious censure pervades his work. Yet, those collages and paintings which are most obviously derived from strictly contemporary sources lose in intensity for some reason. When he alludes to the past, as he does for instance in a collage based on a poem by the Austrian poet Trakl, who died during the First World War, something more creeps in: An intelligent choice of forms, for instance, suggesting the pervasive Viennese feeling for art nouveau; an accent on circumstance (in this case the war) and an involvement which seems more complex emerges.

(Continued on page 34)



(left to right)

"Interior/Dan Chatterton's Town House" 1962, oil on canvas, 60" x 48"

"Mon Mari et Polygam" 1964, oil on canvas with collage, 60" x 48"

"Reflections on Violence" 1962, oil on canvas with collage drawings, 36" x 36"

"Acheson Go Home" 1963, silkscreen print, 30" x 20"

Courtesy Marlborough-Gerson Gallery, Inc.

MUSIC

PETER YATES

REPORT ON SEVERAL POETS

This column has the distinction of being one of the two places where Buckminster Fuller's *Untitled Epic on Industrialization*, published by Jonathan Williams, has had a review. So Jonathan writes on one of his Jargon Press distress signals. If Mr. Fuller weren't too busy to be bothered by the reception of his *Epic*, a book length poem not less meaningful than Dr. W. C. Williams's *Paterson*, we might call him a "neglected poet." He can wait because poetry is only one of his many skills which, though directed towards helping posterity in housing, economic theory, spatial geometry, and a host of other practical matters from the envelope of the eyeball to a third dimension of microscopy and out to space, have brought him a generous measure of contemporary fame. Fames will fade while his the more flourishes. All the same, I'd like to know what stood in the way of the other reviewers. Another American thinker not often mentioned by the slicks is Kenneth Burke, poet, essayist, critic, philosopher, economist, historian, occasional theologian, student of linguistics, rhetorician. (I might say that neither Fuller nor Burke is a theoretical economist full fed on theory but a pragmatic economist like Cervantes back from the wars: he studied Moorish slavery as a captive.) Each of these functions Burke pursues in his own way — "the only writer . . . who has ever developed an inclusive system out of a theory of literature. Burke's mind is such that he is almost incapable of resisting the temptation of the many side roads which he comes on in all his intellectual journeys . . ." Fuller's mind is such that everything he thinks of aims at a visible, tangible outcome, not at once marketable but fundamental to new needs the market has not yet conceived. Burke's aim is at the invisible, the intangible, the dramatic reality of words used, fundamental to still unreceived ideas.

In William H. Rueckert's *Kenneth Burke and the Drama of Human Relations* we are given "the first major study of the greatest symbol analyst of our time. It is surely one of the ironies of American scholarship that theses, articles, and even books devoted to the life and work of minor and unimportant figures continue to pour from our 'learned' presses while the work of men like Burke and Mead stands neglected.* For nearly forty years Burke has been producing one seminal essay after another on how to think about communication. Anthropologists, psychologists, philosophers, men of letters, professors of literature, writers, poets, sociologists, all have made witness of their debt to Burke." (From a long review, "Communication in Society," by Hugh Dalziel Duncan in *Arts in Society*.) Rueckert writes, summarizing out of Burke: "Because the poet is distinguished from other men by being more sensitive, perceptive, and receptive, he is capable of experiencing more intensely and can acquire superior knowledge of the forms and formulae which are the basic materials of art. Burke believes that a superior knowledge of the forms and formulae implies a deeper knowledge of the self . . . because of his profound knowledge, the poet is able to mediate between the particular and the universal, the temporal and the eternal, self and society." This "superior knowledge" constitutes his "revelations: in making a poem the poet ritualizes his revelations in symbolic processes . . . A poem is not just an outpouring of words; it is a highly stylized revelation and involves the poet in problems of technique . . . Thus, there are three impulses or motives in the creation of a poem: revelation (self-expression and illumination); ritualization (stylization, technique); and rhetoric (persuasion, the producing of effects) . . ."

Now we can toss out the critical notion that art "communicates emotion," an idea as intellectually ticklish as the "feelie." If we take up the word "communicates," we can divorce it from the elementary "If you tickle us, do we not laugh;" we can think past "emotion" and try saying what we mean by it. That exactly is the distinction between poetry and poetasting.

So we take up poems by a batch of poets. "A batch," that's what we start with. They are here for review; we can't, pending the review, spend years with each of them. When is a poet? when he

writes a poem? or when the poem recurs in the minds of many readers? A poet is when he thinks poetry; he becomes a poet when he writes out the thought; he achieves recognition (external definition) as the poem recurs in his own mind and in other minds. Now he not merely is; he recognizes himself as a poet subject to governance; he must rule himself and make laws. The recognition he wins in other minds may enlarge his capacity to recognize what he is or it may destroy that capacity, usually by an inverse process. The poet must deny praise and defy his legend. You don't think so? If he doesn't, he will soon be engrossed in his myth, unable to free himself, a figure of critical appreciation.

A poet's work is to achieve the esthetic consistency that is himself as poet, his content. He alone knows himself in that garment; he alone can fit and alter it. Or else his art becomes as external as a fine, form-fitting suit of clothes, anybody's neat consistency.

Revelation

A kiss and a hug. A piece 'of pie in my pocket
for love and luck . . .
Aloft on the shaking deck,
Half blind and deafened in the roaring dust,
On the heaving back of the thresher,
My neck blistered by sun and the flying chaff, my clothes
Shot full of thistles and beards, a gospel itch,
Like a small St. Stephen, I turned the wheel of the blower
Loading the straw-rack.

(Quoted from the first book, 104 pages, *Letter to an Imaginary Friend*, of Thomas McGrath's autobiography set forth in verse.)

Ritualization

Home, then, where the loss is: the rusty ports of the sun and
farther along
The rusty ports of the sun and no slice of moon in my pocket!

Tom McGrath is making a language, of being, not intellectual expression. In his earlier lyrics he was working at the job, sometimes too much and less often not enough and many times in too great indignation — cussing anybody can put on. I've been told there are cussing artists, that the composer Charles Ives was one; if he was as good as everyone who knew him well tells me, then he used his art like Bellini opera or country music, not for a substantial purpose.

Sweet Jesus at morning the queenly women of our youth!

In this autobiographical *Letter*, each part scaled to a different locality and theme, Tom is lavish of language.

Where the gat-toothed buzz-saw burred, a whine and a whicker,
And the round of the oak stump smoked on the freezing
ground . . .

Rhetoric

So, that winter, we got wood up from the river
While the migrant bourgeois of Morehead slalomed south on
their chins
And my auld acquaintance broke like a covey of quail
And rode the rods to Detroit or sooner westerly —
The Lares half-hitched to the buck jumping Ford —
In a cloud of bankers like Siberian wolves
Snapping at ninety-ninth mortgages tossed like brides in their
wakes . . .

So the last line is too much; yet that excess in a poet, some say, makes all difference.

Tom came back after squatting guard in the Aleutians more than three mortal years, his brother, whom he never ceases to mourn, drowned in action; Tom became a radical, real, deep in, and teacher of poetry, whose presence made real the ritual of his art, to be thrust out, blacklisted, by the surface creepers who can never know what it is to be deep in their own country. Verbal patriots, they do not know what it is like to have a native land. Tom went at last back from Los Angeles to North Dakota where he came from. An authentic poet, scarred, flawed, in the consistency of his own spiritual body.

Thanks again to Alan Swallow of Denver, this book Tom was writing ten years ago is at last in print. I bought the book at City Lights in San Francisco, when Lawrence Ferlinghetti gave me four of his own poets for review (The Pocket Poets Series):

*I believe that the author refers to George Herbert Mead, 1863-1931, whom the *Columbia Viking Encyclopedia*, 1953 edition, refers to as "American philosopher, proponent of 'social behaviorism.'" The *Encyclopedia* contains no entries for Fuller or Burke.

Anti-Poems by Nicanor Parra, born 1914, a professor of mathematics in Peru, greeted with more enthusiasm in Chile than any book of poetry since Pablo Neruda's earliest, translated by Jorge Elliott, painter and critic in Santiago. Each poem like a short story is a little whole, not quotable in part. He has an attitude, and the attitude wound up the enthusiasm. Well translated, the mind reads, but it may be better in the poet's native speech. For me, "Soliloquy of the Individual," not like a short story, bites sharpest, with the refrain "I'm the individual." The book ends with an *Epitaph*. A poet trying to catch the absurd in rhetoric, baited with, as so often these days, an imitation self. Therefore no revelation — crappy diem! — and the ritualization becomes repetitive.

Dawn Visions by Daniel Moore flows like an innocent, romantic fresh water stream into the turbid roil of the Bay area tradition. I'm told he is 23 and now safe in Paris, France. I asked Ferlinghetti: why in Paris? Shouldn't a poet stay and work in his own country? He said sharply "I don't believe in regionalism." Later I asked him whether the San Francisco group of a few years ago had broken up, gone to New York and the rest of it. He said: "No. They are all here." I looked surprised. He clarified: "Here in spirit. It's the same among us as always." They think together, correspond constantly, are not separate. But Paris, dammit! why return, as if in search of art, to the site of another region, however internationalized? Why not continue the creation of another site? It's uncomfortable, yes, but so, in the great days of the making of the modern Parisian tradition, so it was in Paris. Were Ausonius, Dante, Villon, Machaut, Chaucer, Baudelaire, Whitman, nomads? But Rimbaud wandered, Ezra went to England. Yet Dr. Williams? No, I don't either believe in regionalism. It isn't being where one is, only being merely of it. Couldn't there be an internationalizing San Francisco? Not in Paris, not in Greenwich Village.

In blackened ravines of space
Emptiness moves thru Emptiness with gigantic strides,
The clear pond of the moon flapping on its scythe!

It is a common voice, but with enjoyable inflections. As it happens, not a voice I read with pleasure, but a voice and not regional. Solipsist.

Ah, rest for a while against the pine tree
and watch
with me the white butterflies make circles in the moonlight.
We have far to go yet and we need
both our strengths.

It is a rhetoric seeking revelation, borrowing ritual. A pathos crying to be tragic. We are here seeking poetry; I don't deny poetry I don't like; I can even admire it. It is better as a critic to put oneself in one's place.

My publisher gave a party to celebrate my new book, in a loft in Greenwich Village. Thank the painter who owns it. One man fell into a skylight. A former fiction editor of the *Post* mixed drinks. Thank them, too. Late in the evening I asked Paul Blackburn, poet and translator from the Provencal, whether Allen Ginsberg had come to the party. Yes, he was there, baby-sitting the drunk, who was uninvited, noisy, apocalyptic; Ginsberg calmly bearing with him, listening to keep him quiet. I thank him for that. The two poets exchanged responsibilities, Paul Blackburn taking the drunk, Allen Ginsberg me. The conversation was at the point of trying to unleash itself, when the drunk returned to the one who would listen to him.

Allen Ginsberg writes in his Introduction to the book of poems by Gregory Corso called *Gasoline*: "What a solitary dignity! He's got the angelic power of making autonomous poems, like god making brooks."

Then he quotes Corso saying, "With me automaticism is an entranced moment in which the mind accelerates a constant hour of mind-foolery, mind-genius, mind-madness . . ."

"The mind has taken a leap in language," Ginsberg tells me. "He curses like a brook, pure poetry. 'I screamed the name: Beauty!' We're the fabled damned if we put it down. He's probably the greatest poet in America, and he's starving in Europe." Written in Amsterdam, Holland Oct. 57.

The first poem is a phallic *Ode to Coit Tower*.

I AM 25

With a love a madness for Shelley
Chatterton Rimbaud

and the needy-yap of my youth
has gone from ear to ear
I HATE OLD POETMEN!
Especially old poetmen who retract
who consult other old poetmen
who speak their youth in whispers,
saying: — I did those then
but that was then
that was then — . . .

This critic is an old poetman. On the subject of Gregory Corso I have not consulted other old poetmen. But this book was published in 1958. And I fear he may be becoming an old poetman.

Outside the wall
the aged gardener plants his shears
A new young man
has come to snip the hedge.

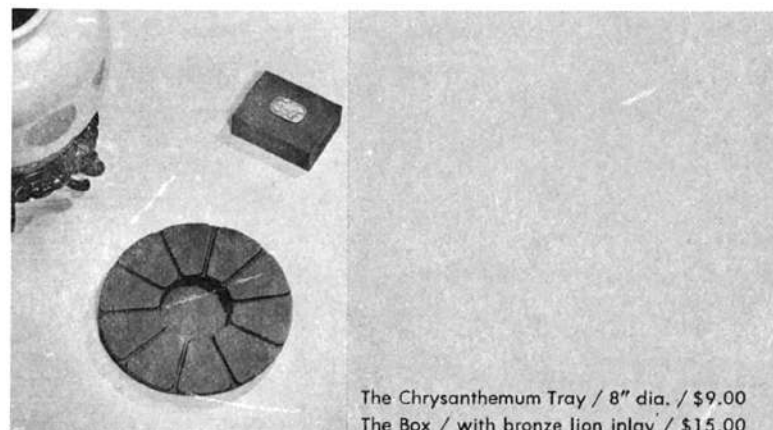
We have next "Reality Sandwiches" by Allen Ginsberg.

He drags his bare feet
out of a cave
under a tree,
Eyebrows
grown long with weeping
and hooknosed woe,
In ragged soft robes
wearing a fine beard,
unhappy hands
clasped to his naked breast—
humility is beatness
humility is beatness—
but his intelligence—
stands upright there
tho trembling: . . .

(That is "Sakyamuni Coming Out From The Mountain" — Liang Kai, Southern Sung)

The book has 29 poems, several fairly long, written between 1953-60.

(Continued on page 34)



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BOOKS

THE NEW CHURCHES OF EUROPE by G. E. Kidder Smith (Holt, Rinehart and Winston, \$17.50)

This breathtaking collection of church buildings shows us how well the statement of faith can be made in contemporary terms. These recent works, mostly dating from the 60's and late 50's, are all taken from western Europe; all are contemporary; none uses exactly the same means as any of the others to achieve its results. Some, such as the pilgrimage basilica at Lourdes, are meant to hold large crowds; others are quite small. Near the front of the book is a double fold-out page showing all sixty buildings at the same scale for comparative purposes. Following this is a similar fold-out of small photographs of each nave taken just inside the entrances. When these pages are opened, the scope of the book is apparent at a glance, and it is obvious that the quality of most of the buildings rates a closer inspection. This inspection follows with several pages of photographs, plans, sections, and bi-lingual commentary (English-Spanish) devoted to each. Small photos show both detail and the urban or rural setting. Too few are taken while the building is in use. Exterior shots that include pedestrians have a greater charm than some of the bare interiors. The churches are grouped by country, and, as some are in small towns or villages, their locations are pinpointed quite exactly, which potential pilgrims will appreciate.

The accompanying commentary is not merely sterile adulation, but points out, with great sensitivity, many strong and weak points of the buildings. Of course, it seems an impossible task to pick such a large number of outstanding examples of church buildings from within a time span of only ten years. Some are structural tours des forces; some have soaring interiors and weak or unfinished exteriors, and vice-versa. The author has done a superb job of choosing his examples: each illustrates some interesting quality; many are marvelous architecture.

As a group, the Scandinavian churches have the greatest quality. They

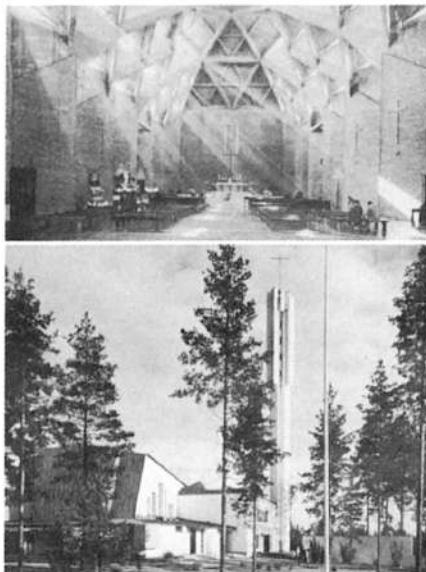
CLEVELAND: VILLAGE TO METROPOLIS, by Edmund H. Chapman (Western Reserve Historical Society and Western Reserve University Press, \$7.50)

When architectural history is traditionally written, as a study of the successive stylistic changes in a series of monuments, palaces, government buildings, etc., a consideration of Cleveland seems almost ridiculous, because this city contains no large, famous, or even especially noteworthy monuments. Neither did any structural or artistic innovations take place there. A follower rather than a leader in the building arts, Cleveland copied each new style or technique as it arrived, but never stepped beyond that point. However, architectural history, as well as architectural practice, is now more and more obliged to take a larger view, and encompass the relation of building to site, site to street, and street to town. Thus architectural history has become a history of town planning, even the history of the development of environment. Taken from this viewpoint, a consideration of the history of Cleveland architecture becomes more interesting. For Cleveland was a planned town from its conception, and the results of that planning, and the virtues and difficulties that have stemmed from it, must be of interest to architects and town planners working with similar problems today.

Many, if not most, of Cleveland's present problems can be easily traced to its original plan. Northeastern Ohio was the Western Reserve of the State of Connecticut. After Connecticut gave up her pretensions to political control of the area, she retained title to the land. As soon as was feasible she turned this real estate into cash by sale to a group formed as the Connecticut Land Company. In 1796 this group sent out surveyors to divide the land into townships and to lay out a major town.

The site of Cleveland was chosen for numerous natural advantages. It is the location where the Cuyahoga River, the western boundary of the lands, meets Lake Erie, forming a roughly triangular plain, with the lake for one side. The site offered high, well-drained land with good commercial possibilities by reason of these waterways. The surveyors laid out a town similar to the New England village with which they were familiar; that is, a rectangle, with a gridiron street pattern, centered by a public square. Where the site did not conform, such as when the plan reached the twisting river, the grid was simply lopped

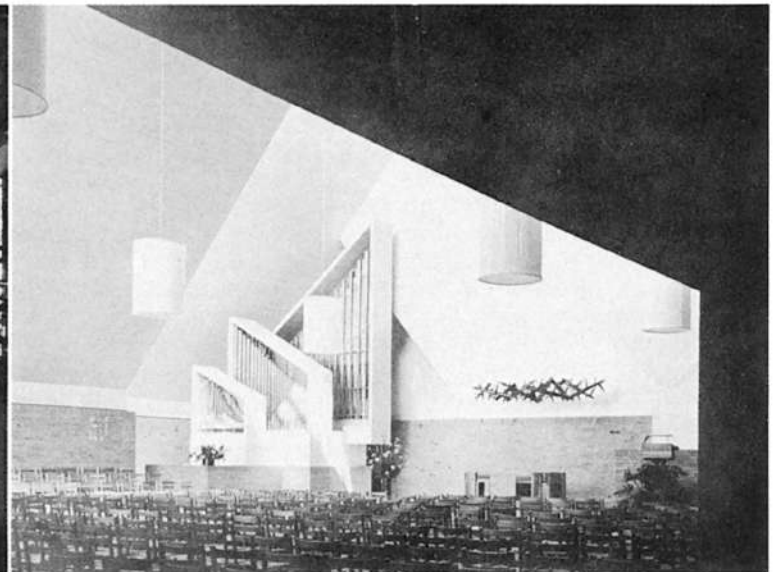
Nicola and Leonardo Mosso



Alvar Aalto



Sir Basil Spence



Ernst Gisell

invariably show an intense tactile respect for materials, a simplicity which makes the materials glow out at the spectator, and a wonderful relationship to nature. The chapel of the Technical University at Helsinki has the purest possible backdrop for the altar: a beautifully proportioned cross backed by large frameless windows, with a forest of snow-covered pines behind. A crematorium-chapel in Copenhagen achieves an equal beauty and serenity by the architect's sensitive handling of brick walls and floors, elegantly simple furniture and finely expressed lighting. When spaces are handled so simply and unadornedly as these, each utilitarian object becomes a focus of beauty.

To anyone acquainted with Mr. Kidder Smith's work, it is needless to say that the photography is superb. He includes an unobtrusive note on the technology of his picture taking.

off. In addition, radiating roads were superimposed from the center to the south and east and the resulting wedge-shaped segments were laid out into lots of varying size. The purpose was purely and simply commercial: lots farther from the center of town could not be sold so easily, therefore these lots were given the attraction of more area.

The city attracted population and grew, and it grew extremely rapidly in the second quarter of the 19th century, with the population doubling or tripling each decade. As the town spread beyond its original boundaries, it was always commercial developers who laid out the new areas. Commerce overrode all; despite repeated requests by the citizens for parks and places for public recreation, the marvelous natural features of river and lake were entirely given over to shipping, warehouses, industry, and later, railroads. The original streets were

extended, and more radiating streets were added, with no consideration to the requirements or advantages of the site. Zoning was nonexistent and later fine residential areas as well as the magnificent lakefront were destroyed by the proximity of the railroad. Citizens' complaints about air pollution and water pollution were dismissed by the newspapers and by the local government as being hostile to commerce and industry; what was good for industry was good for Cleveland, and if the population had to cough to enjoy it, that was the way it was going to be.

It is surprising to see how little either the city itself or the attitudes of public officials have changed in 150 years. Cleveland is amazingly recognizable today in its plan of 1796. The traffic problems inherent in its original layout are the same problems we have today, although it seems unfair to blame those surveyors for not dealing better with a problem which did not then exist. We can blame them for giving us a layout which inherently had an optimum population of seven to ten thousand, when they knew they were laying out a principal city, and one with such commercial advantages in its site that it was bound to grow. Cleveland, in fact, reached and outgrew its planned size about 1830.

The problems of water and air pollution are still with us. There are still chronic complaints from the citizens, and the local government is still saying that if they write new legislation, or even enforce existing laws, industry will leave. Lakefront and riverfront are still usurped almost completely by industry and railroads, and pollution of Lake Erie by Cleveland and other towns has spread so far that swimming in the summer is impossible along the entire U.S. shoreline. Commercial and recreational fishing has declined drastically as well.

Although Dr. Chapman concludes his book on an upward looking theme, noting the forward steps that have been taken in recent years; such as zoning legislation, city planning, urban renewal, park boards, and some recognition of public responsibility by industry, Cleveland has a long way to go to be described as progressive. This excellent history can best serve as an object lesson for any city that wants to grow big.

—ALAN RAPHAEL

ROMAN ART AND ARCHITECTURE by Sir Mortimer Wheeler (Fredrick A. Praeger, New York, \$7.50)

Another satisfactorily designed book in the Praeger World of Art series: plenty of well-spaced, clearly printed black and white and color plates; well-printed, readable text, written by an impassioned defender of the Roman individuality against the usual derogatory, often too perfunctory, comparison with Greece. Speaking of Roman art, Sir Mortimer gives priority to architecture and town-planning. Against Greek art he counterattacks: "The Parthenon is probably the most intelligent extrovert building that the world has seen . . . it was a perfect exterior, a perfect piece of man-made geology . . . Finality . . . is its defining quality." "The Pantheon is perhaps the first major monument to be composed entirely as an interior . . . They were right to bury Raphael within it." You can pay much more for larger books which look well on the table but give less.

GILBERT STUART, A Biography, by Charles Merrill Mount (W. W. Norton & Co., New York, \$10.00)

Charles Merrill Mount, himself a portrait painter, has written a biography of Gilbert Stuart, which is the more valuable because the author knows and describes the compositional tricks of the best painters of the time, the social and political circumstances in which they worked, and is able to distinguish without pedantry the real gift and accomplishment of each artist of whom he writes. Stuart, like his mentor and benefactor Benjamin West, repeatedly borrowed drapes, attitudes, columns from the portrait of the famous Bishop Bossuet by Hyacinthe Rigaud, official portraitist at the later court of Louis XIV. Other sources are discriminated in discussion of Stuart's compositions, and a list of these sources is included at the end of the book. There is also a large section of notes, to provide for needful scholarship, and a complete listing of the works of Gilbert Stuart. The author's touch is light, his erudition thorough, his biographical style informative, penetrating, and sympathetic. Stuart's swooping career, rising to heights of esteem and collapsing into depths of lost assurance, his infallible gift of striking a quick likeness, his mastery of paint, and his psychological fear of failure when attempting a full-length portrait, his unceasing struggle with debt and with an insecure personality, are set forth in abundant detail. One of the supreme artists of his time, within the limitations of that fashion, Stuart would be now another name for the museum, if he had not returned to America at the right time to become the

portraitist of George and Martha Washington, of John and Abigail Adams, Thomas Jefferson, James Madison, and James Monroe. For my taste the most compelling of his portraits is that of Mrs. Richard Yates (no relative) in the National Gallery of Art. There is also in the National Gallery a full-length painting, called "The Skater," which consists of a friend's face, the body and attitude of the "Apollo Belvedere" in Stuart's clothing, with skates on its feet and Stuart's hat, the arms clasped in front of the body because there was nothing else to do with them. An "original" work in its time, this painting proves how little the appearance and subject of a "representation" may have to do with its real sources.

JOHN JAMES AUDUBON by Alice Ford (University of Oklahoma Press, \$7.95)

A very thorough biography of Audubon, painter of American birds, mammals, and insects, by an author who has previously edited three separate collections of his plates. Miss Ford's acknowledgements verify the extent of her painstaking efforts to run down each item of information and correct the fallacies which began with his "partly fictitious memoirs." One beautiful color plate, a collection of portraits, and black and white reproductions of several of the wildlife plates, as well as some drawings not included in Audubon's publications. A handsome and admirable book, which suffers, like many complete biographies, from the author's determination to write in every pertinent fact.

THE TOTEM POLE INDIANS by Joseph H. Wherry (Wilfred Funk, New York, \$6.50)

An enthusiastic and informal account of what the author calls "Totemland," the Pacific Northwest Coast from Gray's Harbor, Washington, to the northern end of the Alaskan panhandle, by an author who spent his childhood among these Indians and prepared from an early age to write about them. Anthropologists, ethnologists, linguists have reported in the language of their specialties the highly developed cultures of these tribes, Tlingit, Tsimshian, Haida, Bella Coola, Kwakiutl, Nootka, Quillute, and Coast Salish, while the living remnants of a great people were dwindling to a tenth of their former numbers. Ruth Benedict's description of the Kwakiutl potlatches, with their competitive gift-giving and destruction of valuable coppers and canoes, may be more legendary than exact. Mr. Wherry's description of a typical potlatch, though less highly dramatized, is the more convincing. There was much gift-giving, for diplomacy (to avoid offending a visitor who might retaliate, if the gift did not match his expenditure of time and travel to come to the party) and as investment (the return gift would be, by custom, around twenty percent more valuable). But the real purpose was the giver's honor; the potlatch was what we call, in our ugly sociological jargon, a "status symbol." This was the time when a chieftain of affluence recounted and portrayed, by exhibiting a newly carved totem pole, by speeches, and by dramatic dancing, the legends of his lineage. The invitation to attend honored his neighbors, but the food and gifts must reward their travel. The book is a thorough account of these handsome Indians, with something of their history, a rich telling of their mythology, description of their arts, crafts, and living habits, and an interpretation of their totem poles. There are many illustrations with accompanying explanatory notes. —PETER YATES

A CONCISE HISTORY OF ENGLISH PAINTING by William Gaunt (Praeger, \$7.50)

William Gaunt tries to give England and English painting its own history and evaluation apart from the influences of the Continent. The author recites the careers and work of celebrated artists, portraitists, social commentators and their relationship to English history and adventure. Beginning with the break between the British crown — Henry VIII — and the Papacy and the effect of this rupture on Tudor artists who were free to turn from ecclesiastical to secular art, Gaunt, art historian and art critic, follows the history through the Tudor, Stuart and 19th and 20th Century artists who followed.

THE ART OF BUDDHISM Art of the World Series by Dietrich Seckel (Crown Publishers, \$6.95)

Buddhism, best understood through its art, is explained in dramatic pictorial fashion in this exceptionally lucid and intelligent history and assessment of the art of the Orient. The author first examines Buddhism and its culture in China, India and Japan, and then offers a comparative study of the effects of the religion on the art of those areas of Asia. Excellent plates embellish the text.

(Continued on page 35)

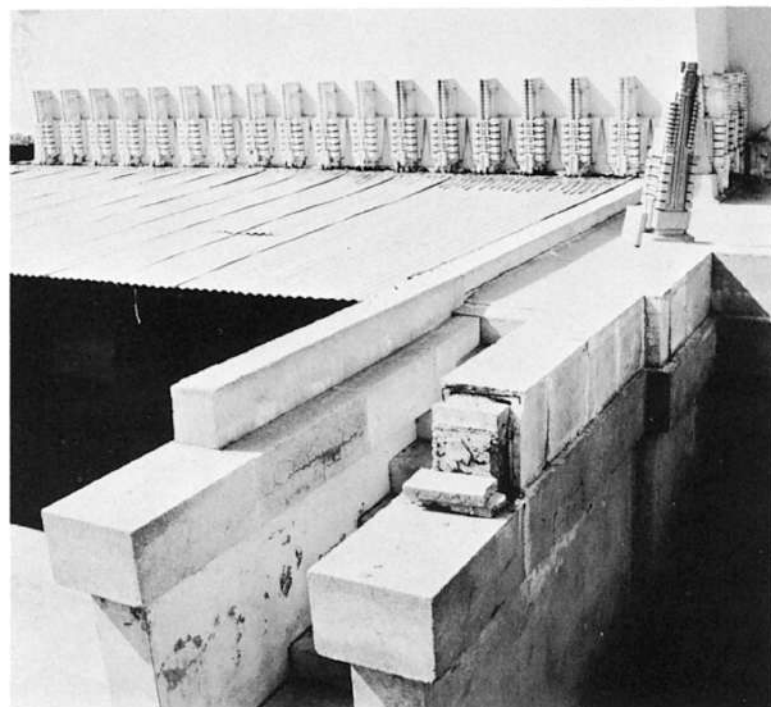


Walter Luther Dodge Residence by Irving Gill, 1916

Photos by Marvin Rand



C. P. Lowes Residence in Eagle Rock by R. M. Schindler, 1923



Uprooted finial at F.L.W. Hollyhock House

The monuments of our past have something to say to us that no book, no microfilm, no motion picture will ever be able to record. Through them, each generation reminds us of its values, its achievements, its hopes. Every significant structure that is torn down or recklessly "improved," every fine bit of landscape that is massacred and ruined forever for some ephemeral purpose, such as shortening a motor route, impoverishes our common heritage. Not age but significance and beauty is what makes a landmark worthy of preservation: some of the buildings of but yesterday should be marked for preservation no less than the most venerable colonial structure. The fact that Independence Hall was once almost auctioned off to the highest bidder, and that in our time we permitted our most ancient monuments, the great Redwood groves, to be sold off as mere timber, shows the need for an American Landmarks movement. Without these historic monuments, our land will exist only in the one-dimensional world of the present, dynamic but insensately destructive: a present that will soon be past, leaving as its chief reminder blasted landscapes and the memory of buildings wantonly destroyed. — LEWIS MUMFORD

OUR DISAPPEARING HERITAGE

Speculative profiteering abetted by fishy land use decisions, ill-conceived planning and public indifference is devastating our environment and decimating our relatively meager architectural heritage. Although not unique in this respect, Los Angeles is among the worst offenders and we were embarrassed by the recent convention here of the Society of Architectural Historians. The Society had agreed to meet here reluctantly, it was said, and only on the condition that the final session be held in San Francisco to remove the bad taste. As if to confirm the historians' opinion that Los Angeles is a cultural Gomorrah, they were taken on a bus tour of our few remaining buildings of historical interest. (Some of the members had naively hoped to see a Spanish Colonial hacienda or two!)

They visited some fine structures of true architectural value and interest, but in a humiliating number of cases it had to be confessed that demolition was imminent: Irving Gill's internationally famous Dodge House, several R. M. Schindler houses, Frank Lloyd Wright's Residence A in Barnsdall Park (the latter, at last report, was not scheduled for demolition: to avoid unpleasantness, the city intends to allow the house to deteriorate by neglect until it falls or has to be razed in the interest of safety).

Writer — and A & A editorial associate — Esther McCoy went along on the tour and describes it thus: "The visiting architectural historians were bewildered. First they congratulated us that Gill's Dodge House was owned by the Los Angeles Board of Education, for in that case it was not in danger of demolition. We explained that the street, Kings Road, had been rezoned (with a speed that was highly suspicious) for high-rise apartments and the price of the land had risen five-fold (some said ten) overnight. The Board of Education had placed what they were now calling 'our million-dollar property' on the market. The historians were stunned by the fact that officials supervising education could be indifferent to historic monuments.

"One prominent historian offered to write a letter to the Board. We couldn't bring ourselves to say that nearly 100 letters from deans of schools of architecture, influential architects and historians had inundated the Board to no avail, nor that Lewis Mumford had written a particularly eloquent plea but most of the Board members hadn't even known who he was."

The final stop on the tour was F.L.W.'s Hollyhock House where, reported Mrs. McCoy, members of the group were distressed to find that two giant sculptured concrete finials had been uprooted from their places atop the newels at the foot of the stairs to the roof terrace (see facing page). They had been removed — and damaged

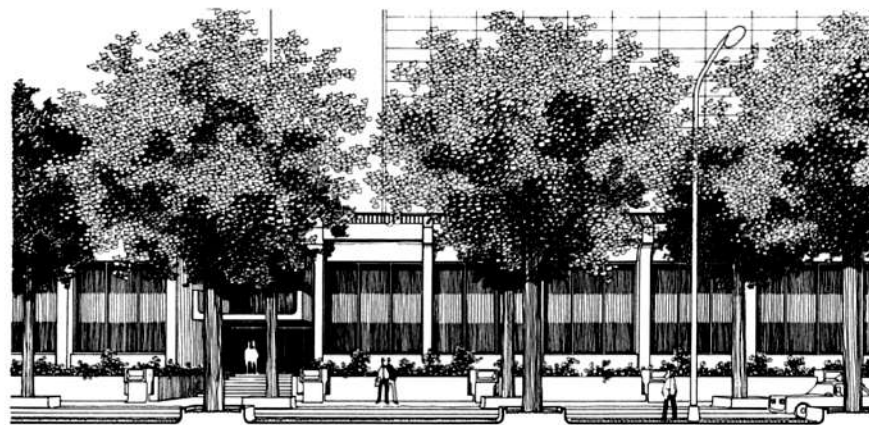
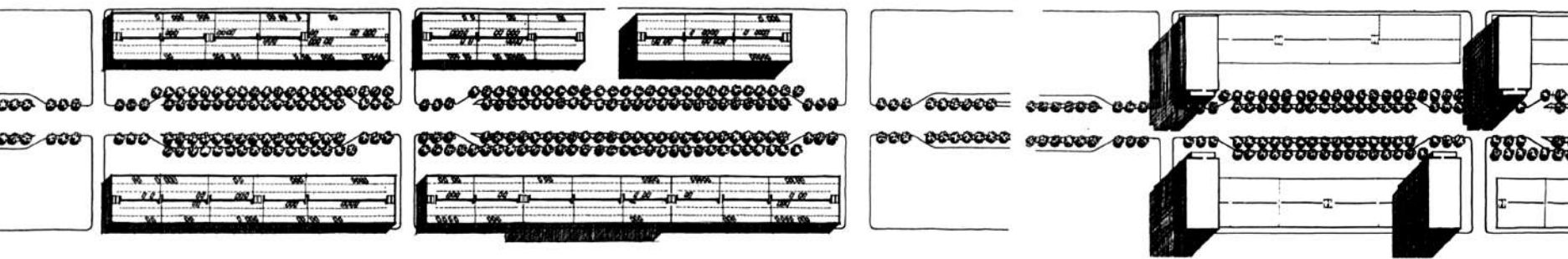
in the process — because they were in the way of a canvas canopy which had been stretched over the patio for a party given by our mayor.

The outrages continue, despite the private and professional action groups that have formed in the last few years. They are fighting what amounts in most cases to a delaying action, hoping for a miracle which will bring them public support. Unfortunately it is the nature of such groups that the dedicated believer is quickly discovered, made chairman and sent out to do battle with bureaucracy single-handed. And to date it has largely been a losing battle. The public doesn't understand the importance of what is being lost, and the bureaucrat doesn't care. Both smile at the person who agitates for preservation of our disappearing heritage as a cultural anti-vivisectionist, an hysteric.

Creation of the long-sought Cabinet post for urban affairs now seems assured and only a step away. Whatever its affect on preservation (it can hardly make the situation worse), direction at the Cabinet level gives cause for hope in redevelopment, particularly in the area of low-cost housing. It is also certain to give a jet assist to urban renewal and so a new urgency for reaching an understanding (and agreement) within the professions as to what the true needs of the city are. Without such understanding, instead of the present piecemeal massacre of our environment, the new office is liable to make the devastation more efficient and wholesale.

Too, a bone-bred skeptic might point out that it is our genius to make marvelous discoveries, elevating and wonderful advances and then systematically to pervert them, turn them into destructive instruments, exploit them selfishly. Self-government, one of man's finest achievements, is an equally fine example of this predisposition to evil. It evolved as an instrumentality for the common good, for promoting and administering an intelligent and orderly journey from yesterday to tomorrow, thus leaving the citizen free to pursue his happiness or unhappiness according to his taste. But administration has degenerated into petty and corrupt bureaucracy, conducting public business for private advantage. The bureaucrat, our own creation, no longer heeds us — servant turned master, the broom of the sorcerer's apprentice on a cosmic scale. Lewis Mumford denounces him passionately: "The bureaucratic personality is sterilized, regimented, overcontrolled, ultimately hostile to every form of life than its own: cut off from human resources and human roots." In short, the ideal tool for the speculator, who has learned to use him skillfully — and nowhere to better advantage than in the field of urban development and renewal.

in passing



ROBERT GEDDES

*Geddes, Brecher, Qualls
and Cunningham*

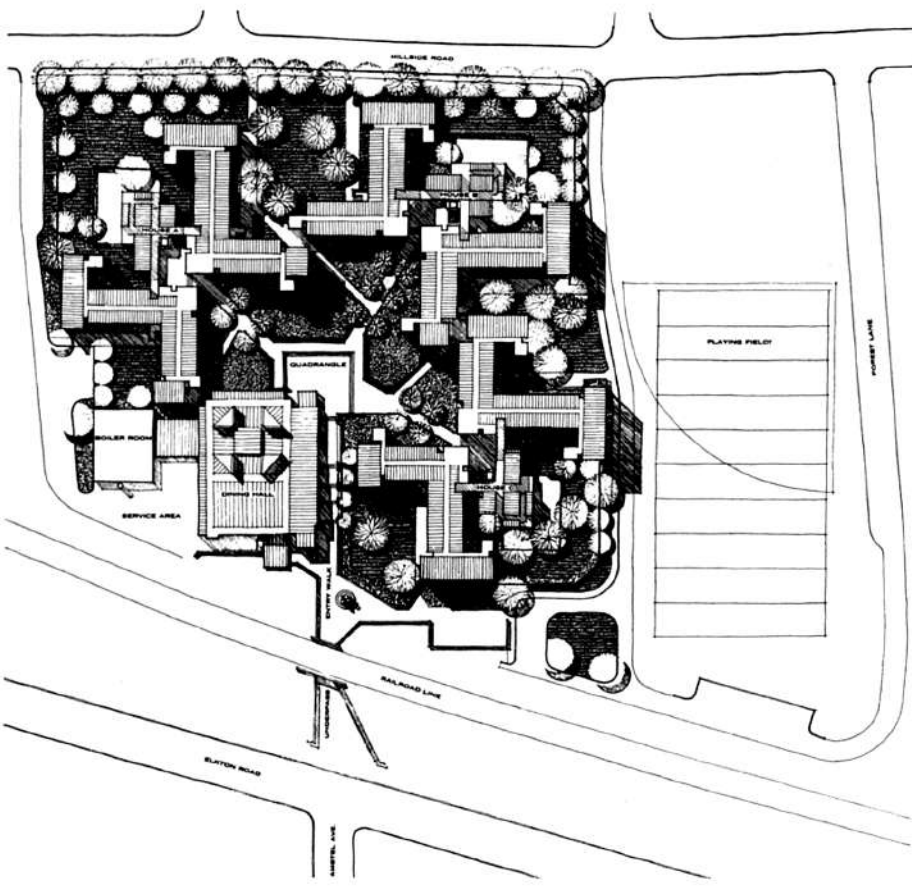
The statements of Robert Geddes, Aldo Giurgola, Robert Venturi, Thomas Vreeland and Louis Sauer are taken from taped conversations made in Philadelphia, and are part of a study of gifted young architects in the U.S., a project being carried out with the aid of a Ford Foundation grant.

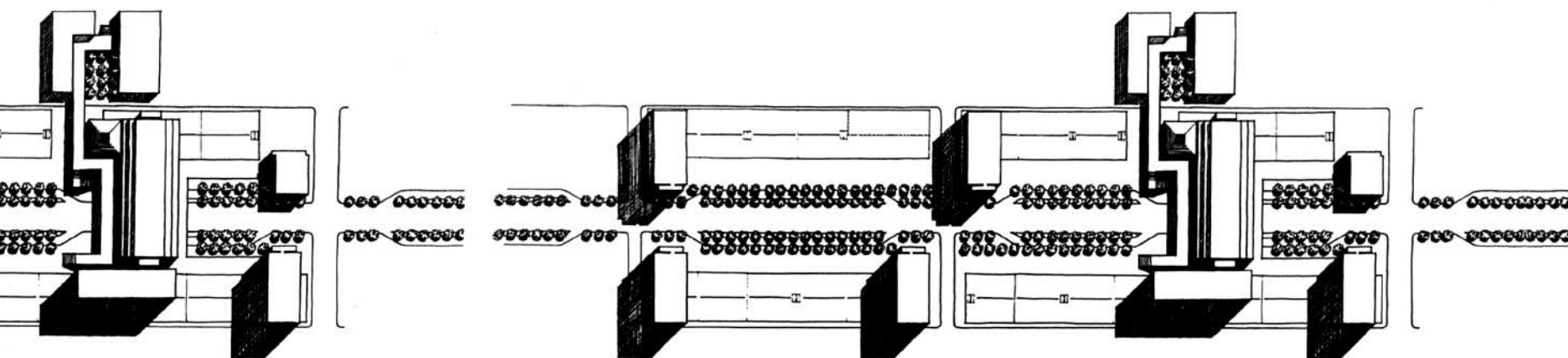
The men have three things in common: all are involved in teaching and city planning, and to a greater or lesser degree are influenced by Louis I. Kahn's philosophy, architecture and plan for Philadelphia.

Kahn is the rallying point, as Vreeland says, or, as Giurgola observes, "He is not a man who goes by himself, but he finds new ideas through talking, through elaborating, through projecting. Others may isolate themselves, become mature in themselves, but in Lou you feel that he matures through exchange."

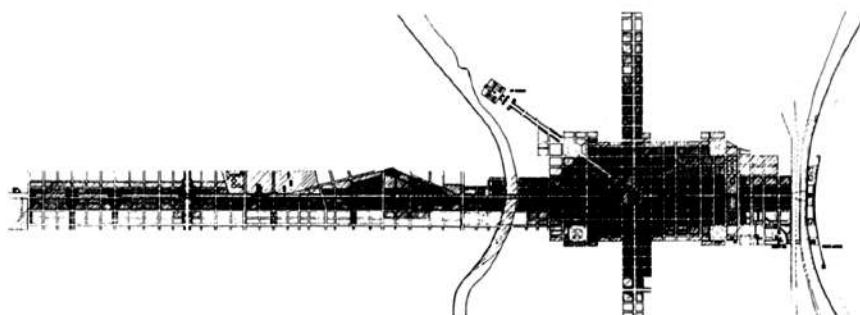
It is this exchange of ideas, this architectural currency, which makes Philadelphia unique. Giurgola put his finger on the potentialities of this exchange when he and Vreeland were discussing the value of young architects collaborating on competitions: "What is good is that there is always a group of people who live in a place, and they know each other, they develop a kind of affinity, and the product then becomes substantial. Then when you come from outside you say, 'Well, this is an expression of the life of one place, or of ones who really discovered life as they went through, not somebody who invented a theory and applied it and then left.' That is the kind of cooperation we like to arrive at." —ESTHER McCOY

"Several things happened in Philadelphia in the fifties that made it just plain lucky for us. One was the fact that Lou Kahn was here, and another was that the Architecture and Planning Commission was sympathetic to young architects, and a third was that the policy in Philadelphia was to encourage good young architects. In Ed Bacon [director, Philadelphia Planning Commission]





East-west Market Street axis development, Philadelphia, including Penn's Landing and University City Science Center projects.

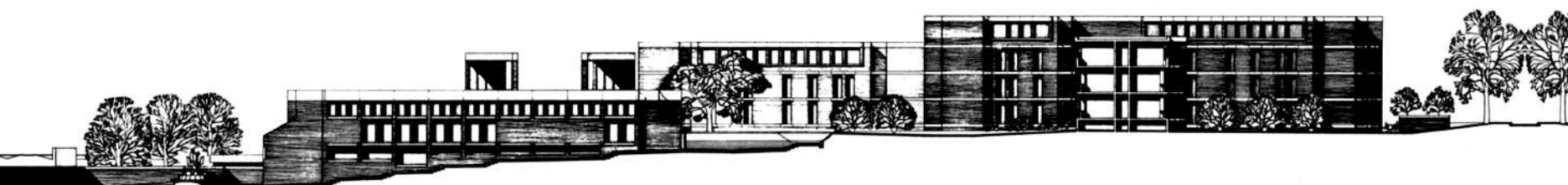


and Dean Perkins [Graduate School of Fine Arts, Univ. of Pennsylvania] we have men who make use of young architects. On one of Ed Bacon's committees, I'm the old man, everyone else is younger." (Geddes is 41.) "We have a really good Citizens' Council on City Planning here, and a good city Planning Department. Cities need citizens' councils. A question is, what does the young architect do in a city where there is no concern for city planning and no university? He has much more trouble getting established.

"Architecture is an extremely complex art, a realization of society and human beings. When someone wants to build a building it isn't a battle between you as a large scale sculptor and the client. Architecture is a truly social art, more of a humanity, and the more it becomes sculptural and flamboyant the more it fails. Architecture would be better off if a true technological approach were taken to it. This does not eliminate the *ah-ha!* in architecture.

"The thing is that architecture exists on many levels, and one has to do with the meaning of things. *What* you do, not just how it's done, is important. I think that for a number of years we've been going too much in the direction of large scale sculpture." (GBQC's Police Headquarters, Philadelphia, 1962, was the last sculptural building his office would do, Geddes said.) "We aren't sculptors, we're architects. It's a noble profession all its own. It's the one of the humanities and arts which comes closest to being a direct reflection of changes in society. It's a revolutionary profession. The architect is right in the middle because he makes a thing you live in but at the same time changes the whole city. So my real prejudice is toward the larger view of architecture. On the other hand I respect very much the improvement in technology which allows better materials, better joints, more precision. The influence of Mies and S.O.M. has been very good. We build better in this country than we ever have — and building well is a major concern. The young architect should build very, very well, not expensively but well detailed." —ROBERT GEDDES

SIX PHILADELPHIA ARCHITECTS



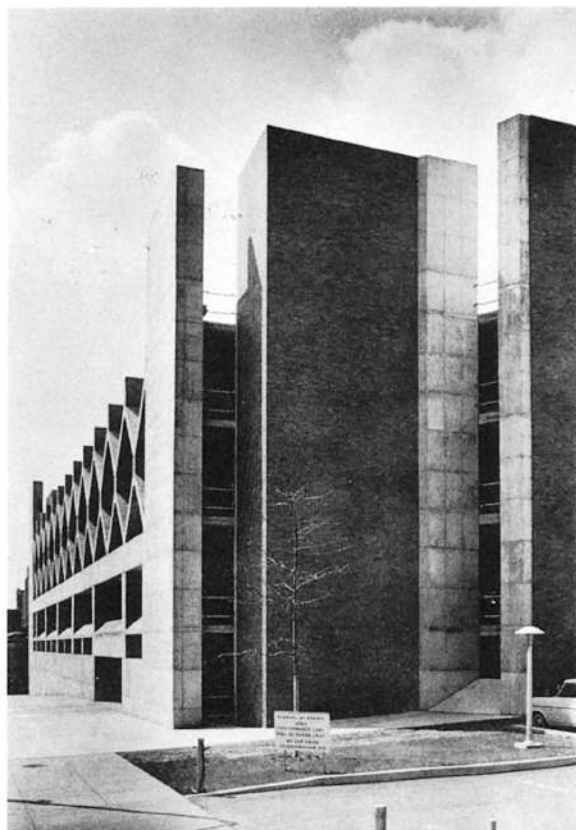
UNIVERSITY OF DELAWARE 1966 RESIDENCE HALLS AND DINING HALL



ALDO GIURGOLA

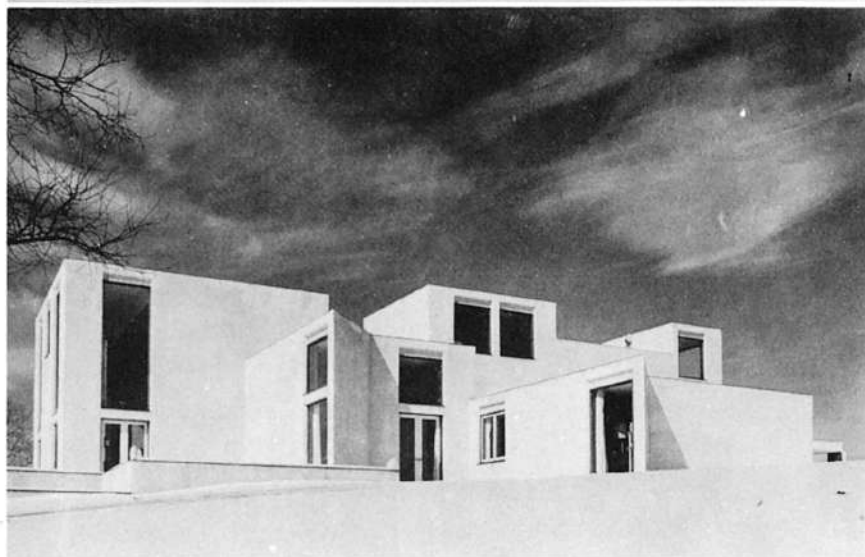
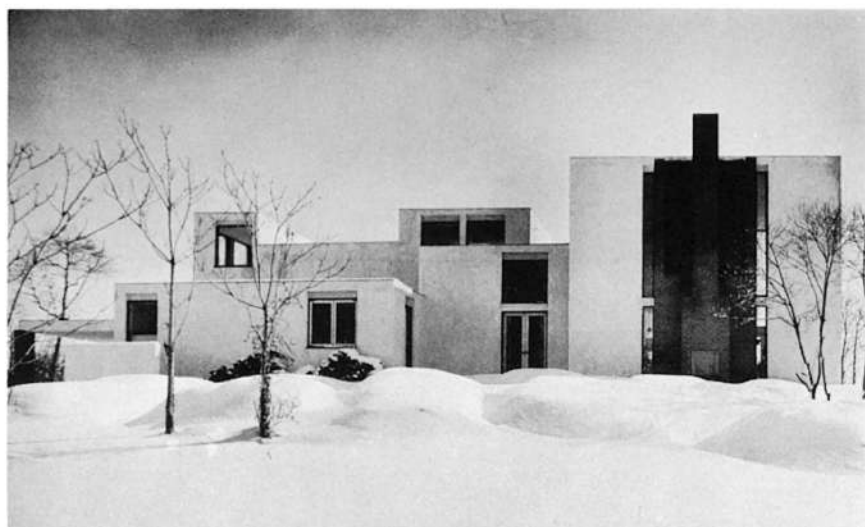
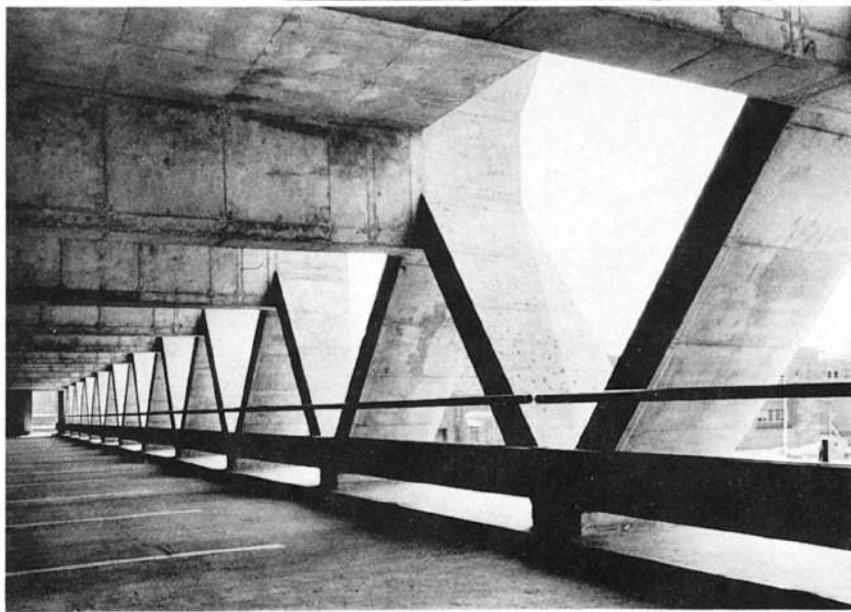
Mitchell and Giurgola

"Every kind of problem has to start from scratch if the architect is to make something that is extremely alive — an organism; it has to be able to support its own life and it has to be fresh in every detail. This is what makes architecture different from construction. I think this is why I am afraid of theory. I like to make schemes sometimes, but I'm afraid of the general assumption in architecture. We have new phenomena but our aspirations never change. What we complain of in the big generalized office buildings is that they reflect the condition of man. It had come to the point in architecture where we had lost the sense of basic fact. There was involvement in architecture as technology, as sociology, but at a certain point we lost the basic constant that made architecture a thing that has a meaning, of an art becoming universal. Lou Kahn was one who could catalyze certain feelings that others were not able to express, to give precise, definite form so others recognize in him what they were striving for. It was not an instance of finding another solution but of discovering a certain basic element, a function of life, in a building, what a stair means, a wall, a piece of glass — not in the pure material sense but in a rediscovery through which you discover that architecture is an art not a tool."



Photos by R. La France

Parking garage, University of Pennsylvania.



Chestnut Hill residence

American Center for Insurance Education, Bryn Mawr, Pa. Photo by Alexandre Georges.

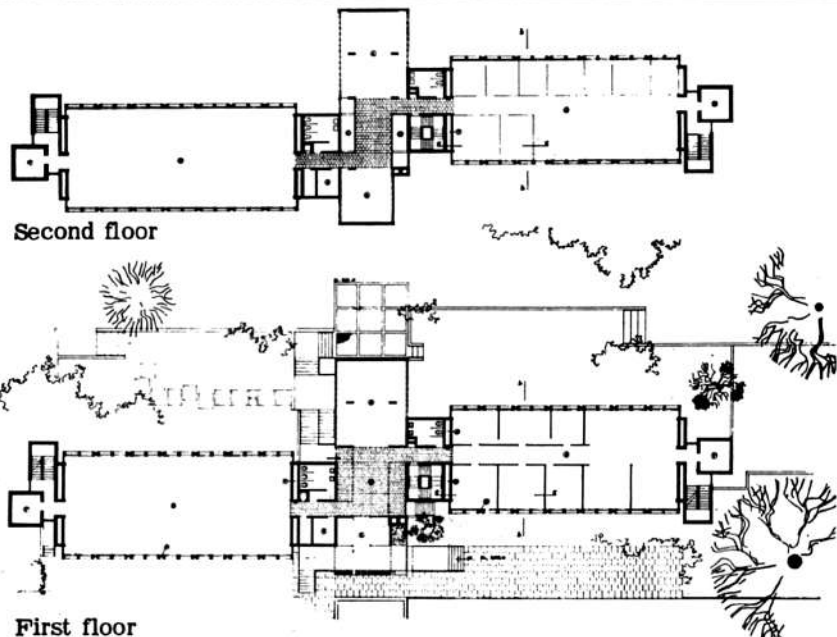




Photo by George Pohl



THOMAS VREELAND

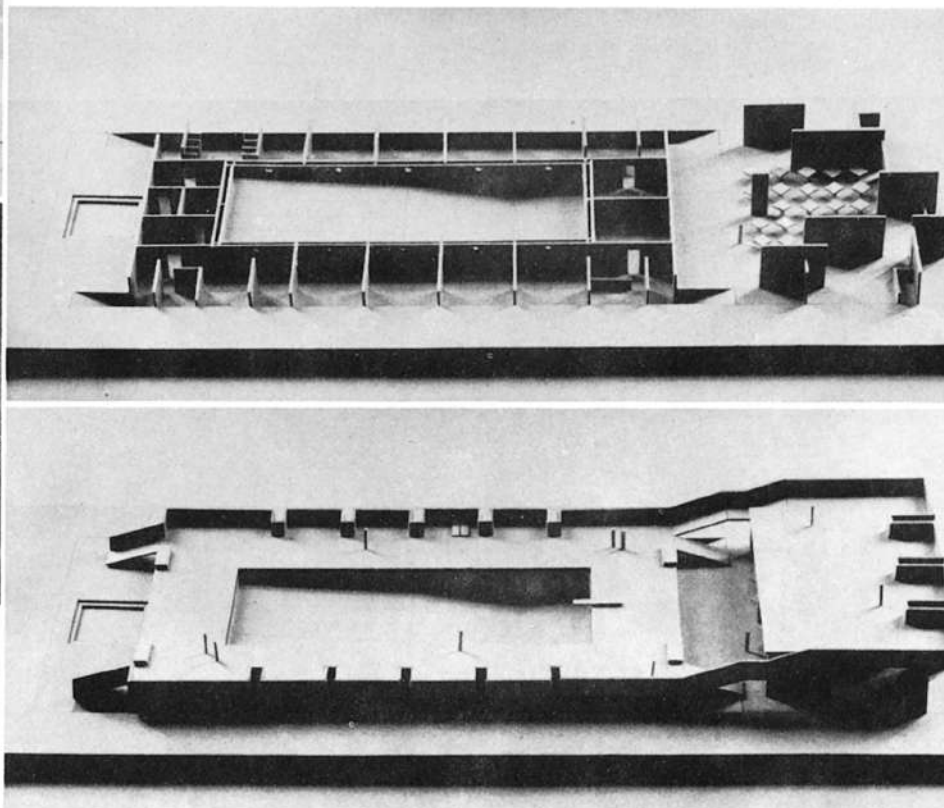
Schlesinger and Vreeland

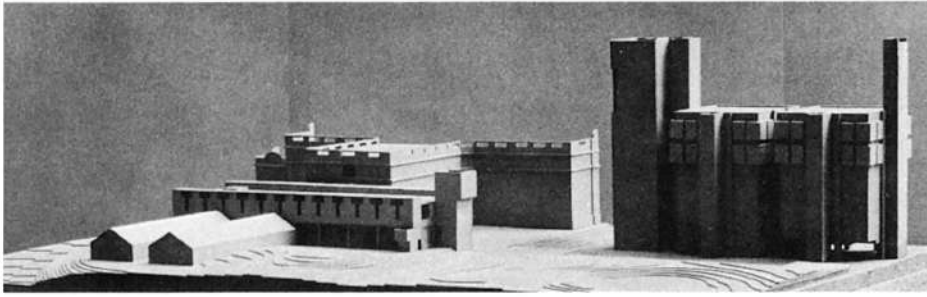
"Here in Philadelphia we enjoy the advantage of a very enlightened Planning Commission, and also the strong influence of the University of Pennsylvania and their interest in planning. The men who teach architecture at the university extend their interest far beyond the single building and into urban planning. The Planning Department looks very favorably on giving the redevelopment projects to young architects because they know the men will put an enormous amount of effort into a block-by-block study, not by rote or book as the large office would."

"Planning hasn't yet assumed so much importance in other cities. Philadelphia was one of the first; Kahn's proposals for the city came in 1954. When I did a study in project, Kahn's plan was always at the back of my mind: the street as harbor, the street as dock, the go street, the stop street. By ordering streets this way certain ones could be reclaimed for play or activity."

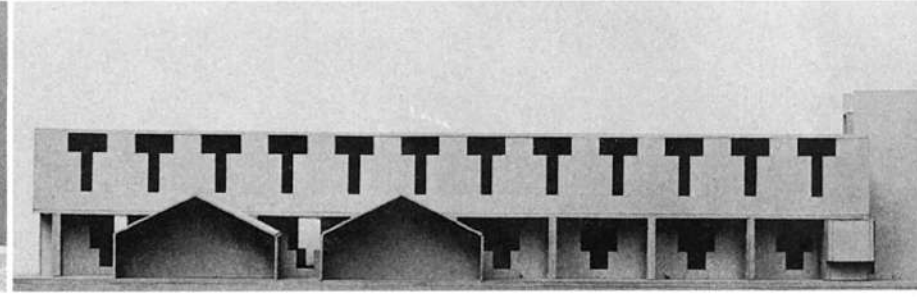
"Philadelphia is fertile soil, and if something extremely desirable is going to happen in this country it should happen right now, and here in Philadelphia. We have all the ingredients. There is a ferment of ideas, and this will have a broad influence on the U.S., but just how much physical impact all this potential richness will have on the city in ten, fifteen, twenty years is uncertain. "When I designed the swim club I had certain aspects of the Spanish Steps in mind. I had spent a year in Italy and lived near the Steps and was aware of their changing aspects at different times of day. How thoroughly they were used and enjoyed: boys playing soccer on them, older people meeting or taking the sun; the flower stall. It was this public aspect of architecture that interested me. The swim club is a series of platforms, with movement at the half level along ramps — a half level from the locker room to the children's pool, a half level up to the pool, and to the sun deck above the restaurant. The small site is completely used, and each level relates back to the pool, even the locker rooms, which have portholes through which you can see into the pool."

Rittenhouse Swim Club, Philadelphia

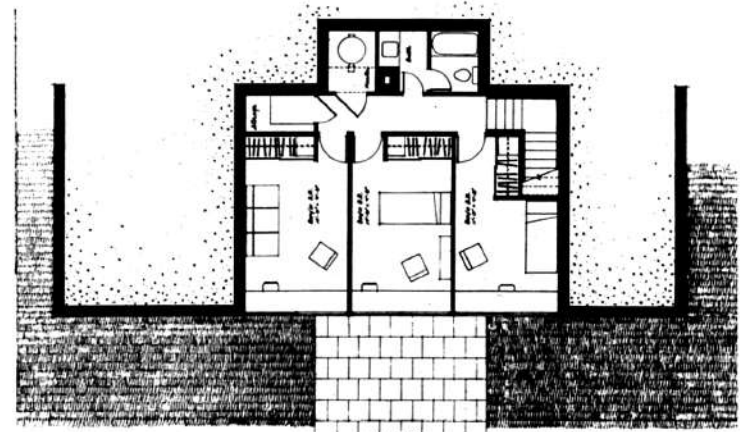
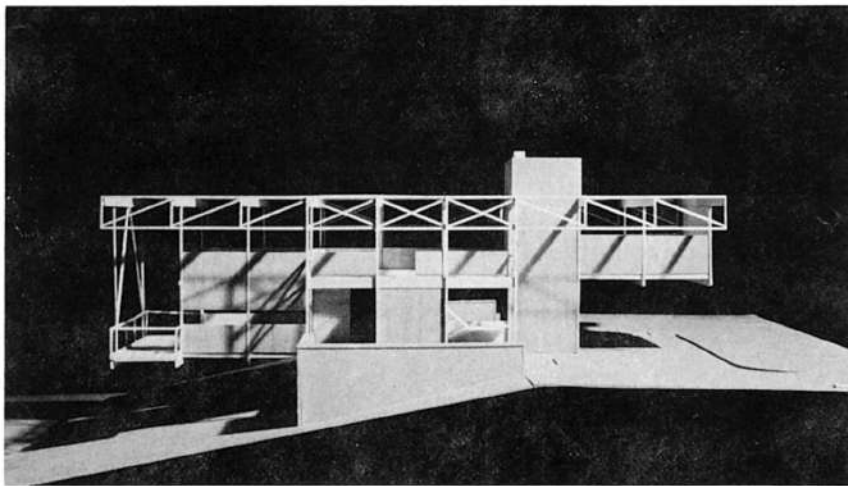
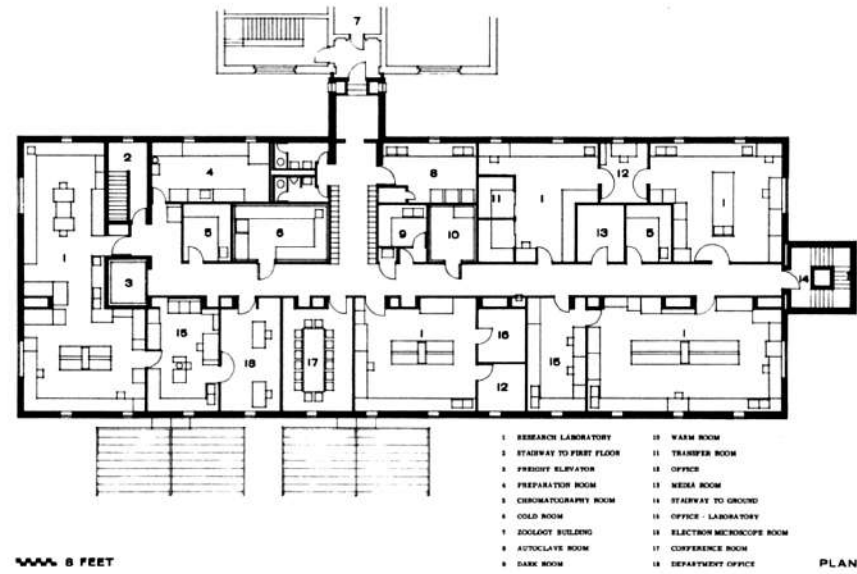




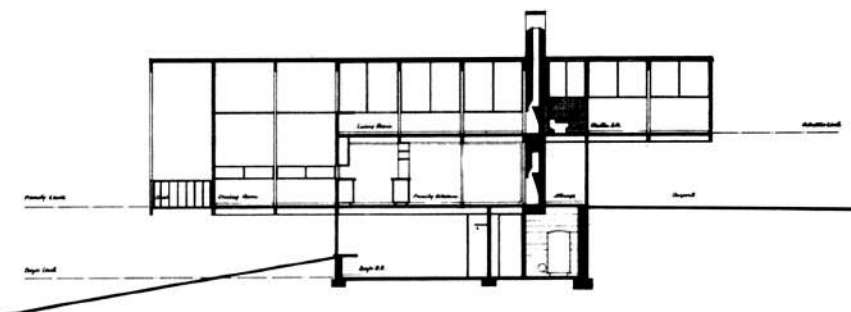
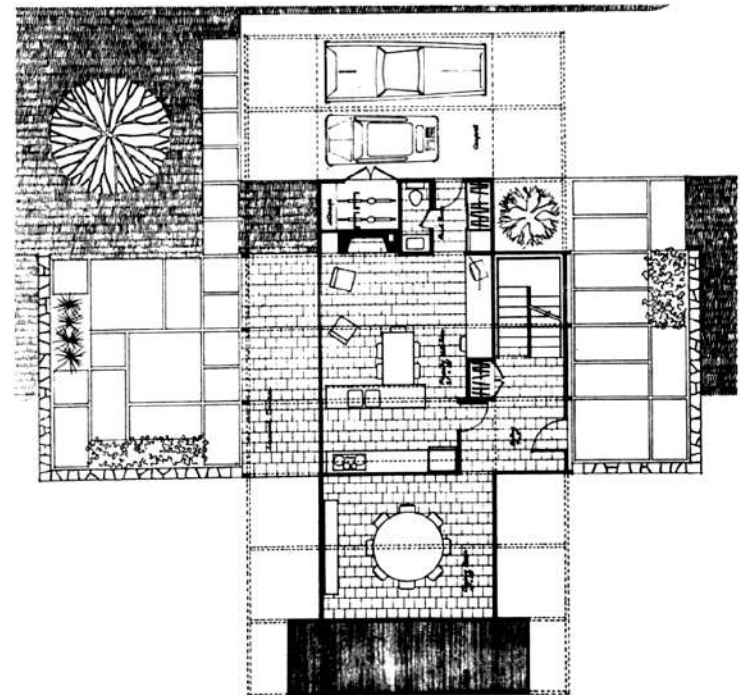
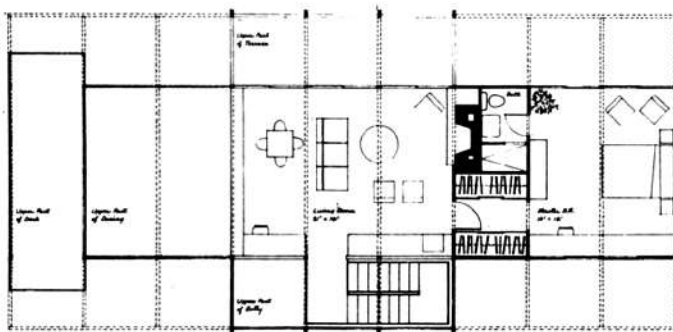
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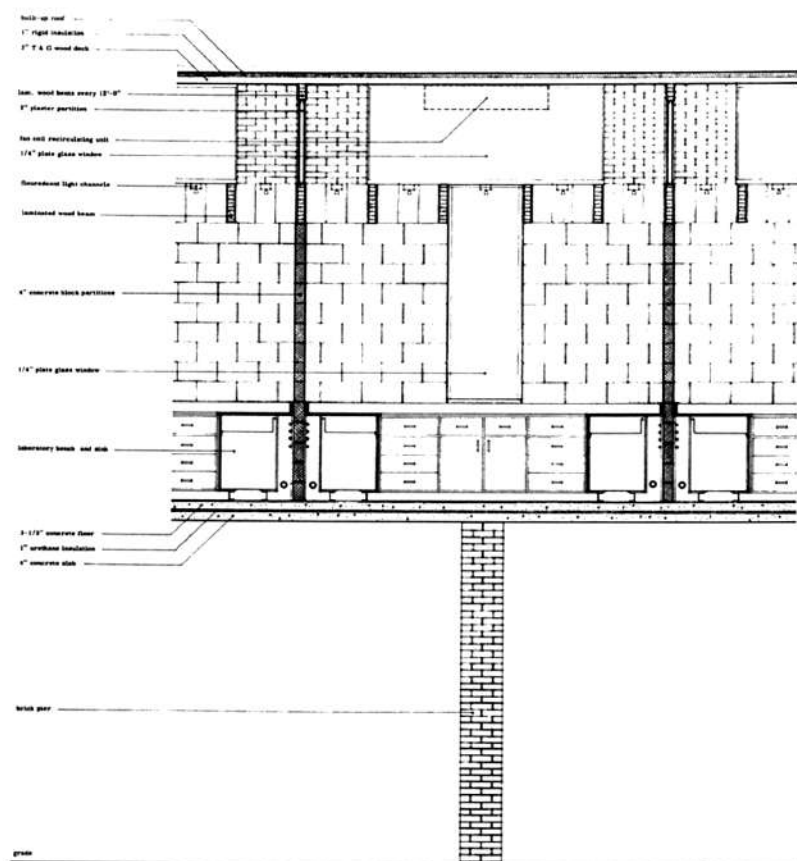


Schlesinger and Vreeland



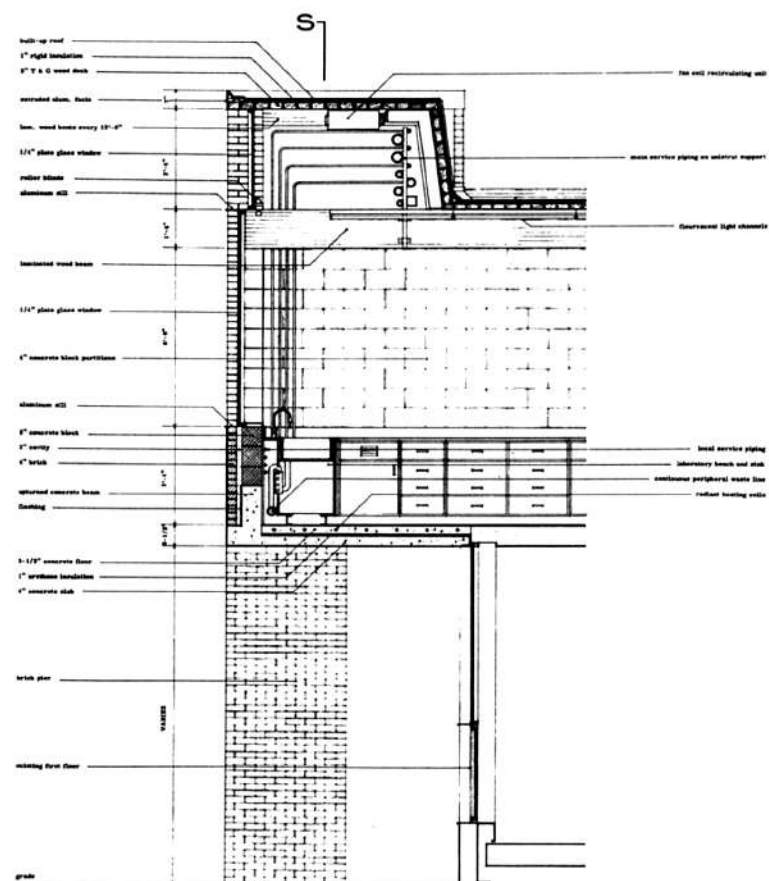
Two Houses





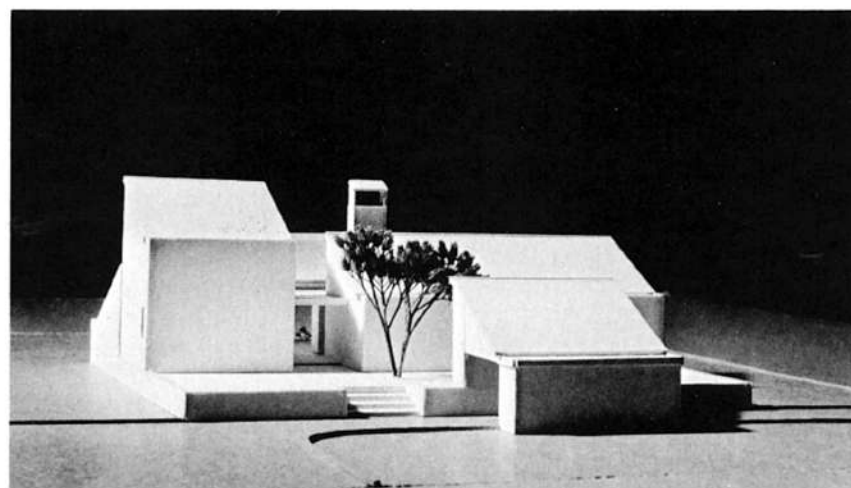
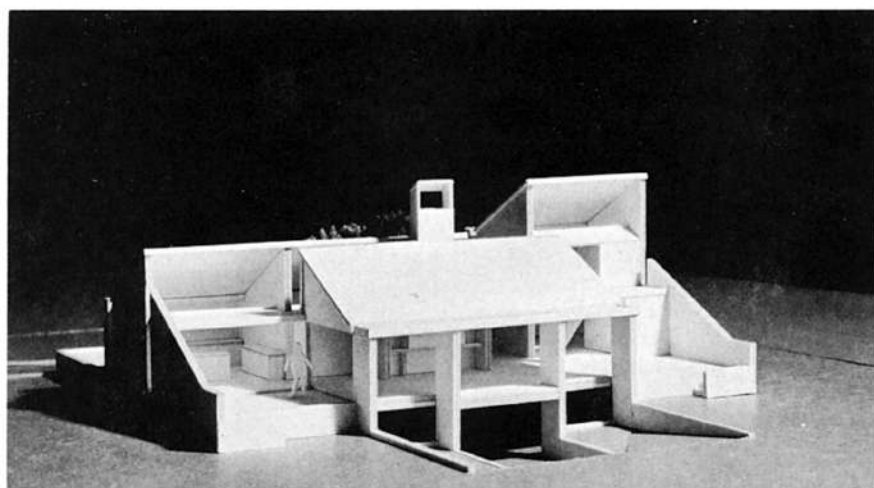
3 FEET

S-S INTERIOR ELEVATION OF TYPICAL WINDOW

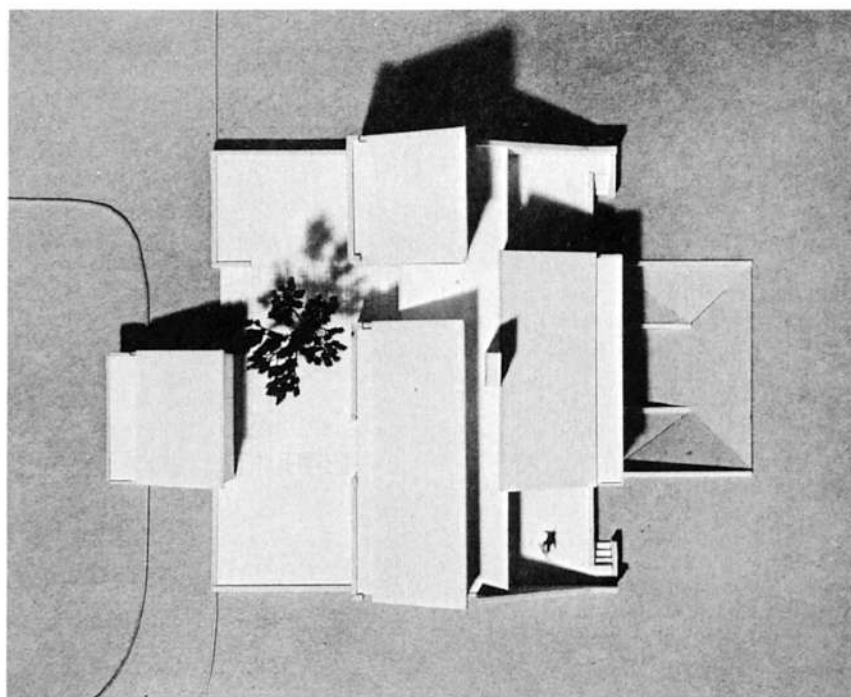
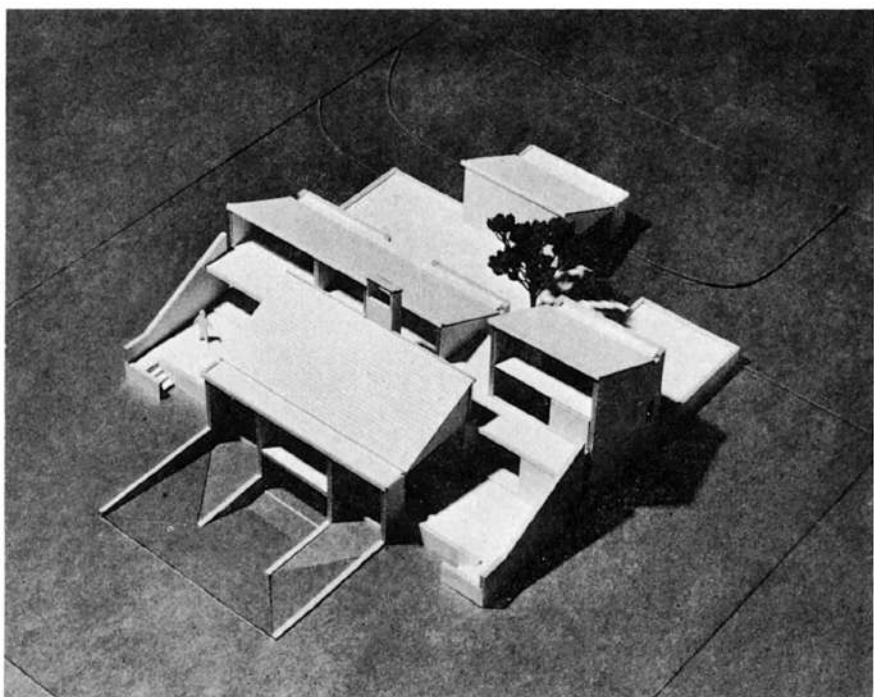


3 FEET

SECTION THROUGH EXTERIOR WALL



FRANK SCHLESINGER

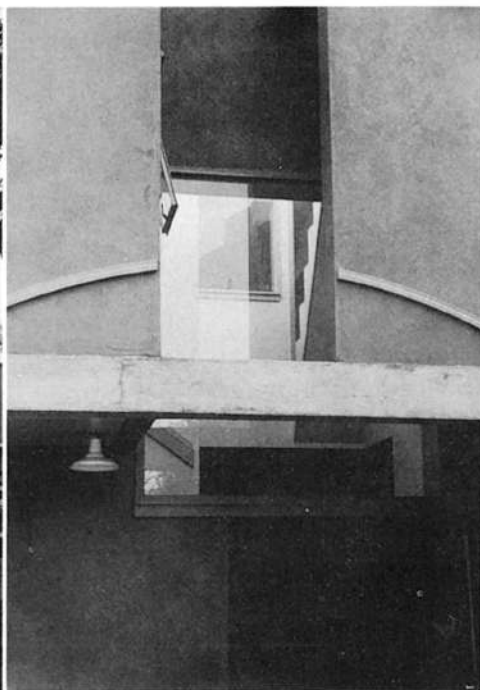
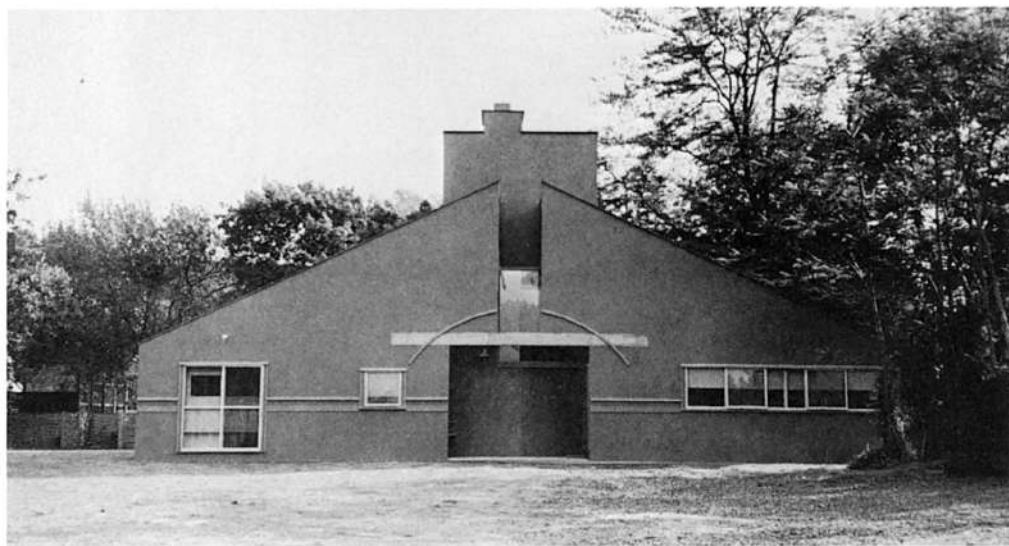




ROBERT VENTURI

Venturi and Short

*House in Chestnut Hill, Philadelphia;
stuccoed concrete masonry units.*



Photos by George Pohl

A JUSTIFICATION FOR A POP ARCHITECTURE

*Robert Venturi, all wind but no fury;
Why can't he stop just going Pop?—Anonymous*

"I went to an architectural conference on computers recently and the microphones didn't work, or rather, their mechanical defects disrupted the lofty proceedings with Bronx-salutes. This grating juxtaposition of form versus content symbolized for me the condition of our architecture in relation to what is versus what ought to be, to the contradiction between the short-term and the long-term, the immediate and the speculative.

"Architecture always relates to practice before speculation. Like the politician, the architect is expedient because he deals with things as they are. As an artist, he is the maker whose impetus comes from the immediate over the speculative. His question is 'Does it?' rather than 'Ought it?' His visions are only incidentally visionary. This inherent dichotomy is exaggerated today.

"In speculating on the reality of the dawning electronic age for architecture Serge Chermayeff at this same conference decried the irrelevant expressionism of our current architecture. And soundly, I think. But I question his lumping into the same mould all kinds of Pop architecture, as he called it.

"Electronic technology is the speculative problem for architecture now. Not many architects can go electronic significantly in either their methods or their expression. The Federal government and the big industry it supports have largely directed expensive computer research towards the enterprises of war or, as is said, national security, over the forces for the enhancement of life. The practicing architect must admit this. In simple terms his budget and his techniques for architecture relate more to 1875 than 1975.

"The Pop architect admits it. He makes a virtue of necessity. He accepts convention. He doesn't pretend to be technically advanced beyond his means. Nor does he risk what might be called an electronic expressionism to parallel the industrial expressionism which much of early modern architecture consisted of. Even Mies van der Rohe as late as 1940 represented a superficial adaptation of Albert Kahn's vernacular industrial vocabulary of exposed steel in his own fire-resistant building.

"Pop architecture embraces the commonplace, or rather the just obsolete commonplace, as the actual elements of building. And the architect accepts his role as combiner of old clichés ('decadent banalities') in new contexts as his condition within a society which directs its best efforts, its big money, its elegant technologies elsewhere. Pop architecture can be the real expression of concern, in an indirect way, for society's own inverted scale of values.

"In any case, I am compelled to recognize now my predicament nearer the screeching microphone than the humming console."

"Our experience is complex and contradictory, and the program in architecture is complex and contradictory; our architecture must reflect this.

"We talk a lot about simplicity and I'm not against simplicity, but against simplification, and there's a great difference. In modern architecture a sun screen is nothing else, a support is seldom an enclosure, because the double functioning element is abhorrent to the modern architect. The column is the modern manifestation of structural support, saying only one thing, only incidentally spatial, not making space. Very pure — saying only one thing. The vestigial element is even more abhorrent to modern architecture. The modern architect doesn't want anything vestigial — it is a prejudice and hangover from the past. To the extent that a building has that, it is not good, because a building must be purely what it is. I like to be tentative; everything is that way, anyhow. As soon as you reach the pure thing it is obsolete. I love the balloon frame historically for this reason; it is a frame and also a skin structure. It grew out of the earlier heavier frame structures, and it is an impure thing. Corbu takes the pure thing — villa Savoye is a pure configuration of columns — and then he moves over one or two columns to get the ramp in, yet he has this closed order and clarity of the Mediterranean. Villa Savoye is precisely formed yet randomly gouged.

"Standardization is accepted as an enriching product of our technology, yet it is dreaded for its potential domination and brutality. But the architect can employ standardization unstandardly. Alvar Aalto has an artful recognition of the circumstantial and contextual, and the inevitable limits of the order of standardization. You can use the commonplace in a certain way so it isn't commonplace — standardization with an irrationality that is rational because it accommodates itself to the contradictions of a complex reality."



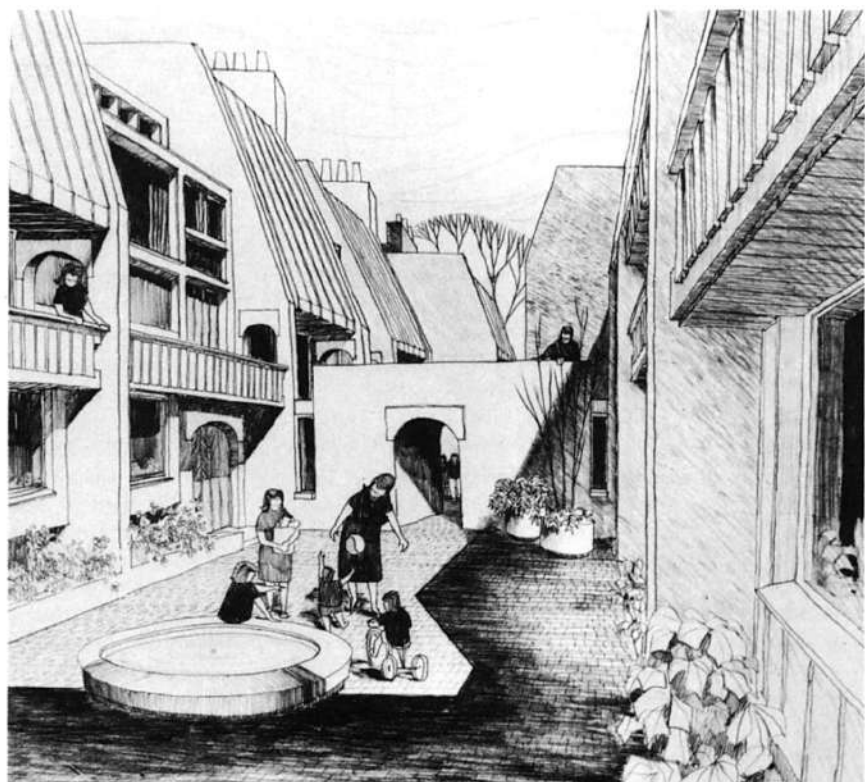
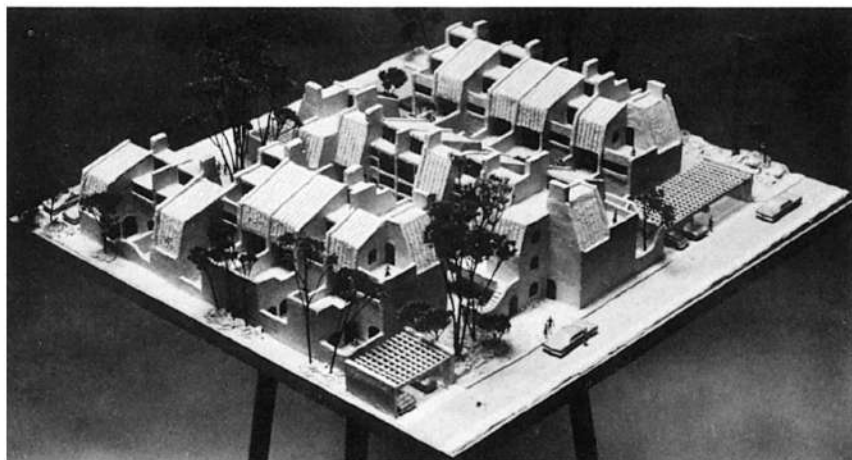
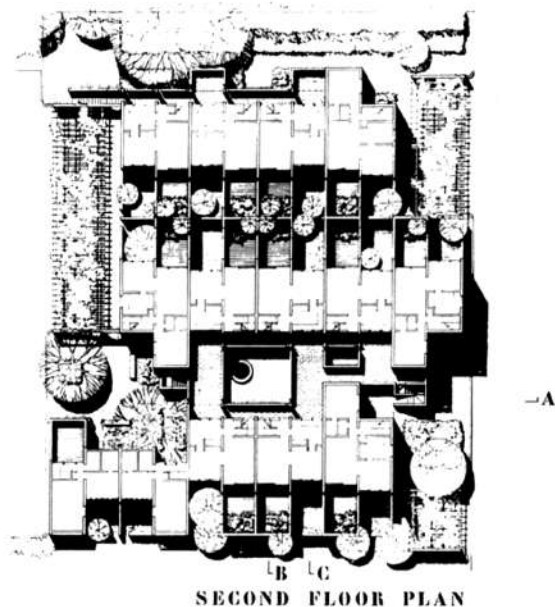
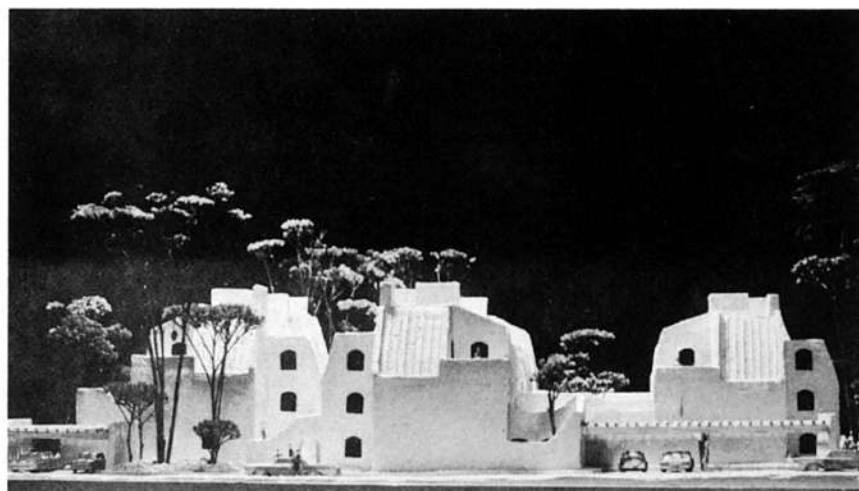
LOUIS SAUER

"Philadelphia is a city of towers, but also one of intimate activity happening at ground level. There is a kind of scale, or scalar quality of people in the buildings, and it rubs off on the people." Speaking of a new tower in Philadelphia: "There is no opportunity here for this intimate activity at ground level. Not even a newsstand. If you have an airline office on the ground level what happens after five o'clock? No activity."

"We argue a lot here in Philadelphia. It's the only city I know where the younger offices are so vitally concerned with their architecture that we begin to lose the more traditional distinction between offices. I believe the present attitude of architects primarily is a very feudalistic one. We have our separate kingdoms, but the problems we have in construction and in architecture will never be solved this way. Two years ago the younger offices started getting together from time to time to present our designs at certain stages, and it was always a battle, for we all said what we really felt. In this way you get out of this feudalistic thing. I don't know of any other city that is doing this." Of the architectural profession: "I personally am disgusted with myself and all the other offices here for our unwillingness to accept responsibility for our physical environment." But it was not just Philadelphia; it was the profession as a whole: "Look at the World's Fair. They have a couple of houses there that would tear your heart. Why not an exhibit that would show what architecture really is? To a great extent it is too late to interfere with large parts of the cities. And if all the architects put their heads down now it would still be ten years before it would show in our cities. Things can happen only when the profession gets together with responsible bankers, responsible real estate people and responsible builders and agree that there is a problem."

Of competitions: "I pooh-poohed them until I won. They are very helpful because they establish you in the lay-person's mind. It's something you can lean against. But the danger is that it takes architects out of their quiet talking to themselves. The architect has just begun to get intimately involved with his work, and he is apt to lose that intimate thread with himself."

Pastorius Mews, Philadelphia



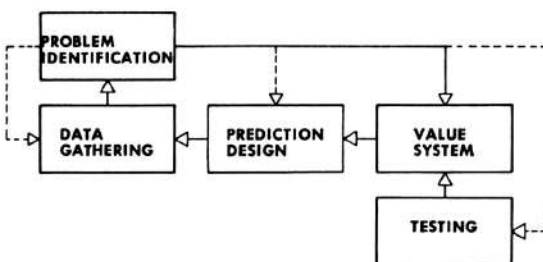
The editor of *Arts & Architecture* has finally run me to ground. I had failed to make good on a somewhat ill-advised agreement to set out "In Search of a Theory" because I am lazy, but also because in my readings in aesthetic theory I have found nothing that is to me both convincing and useful. I doubt that I will succeed where wiser men, who have devoted their lives to the subject, have failed. Geoffrey Scott says in his essay on architectural theory "... in the present (1914) state of our thought no theory of art could be made convincing or even clear to anyone not already persuaded of its truth. There may be at the present time a lack of architectural taste: there is unfortunately no lack of architectural opinion. . . . We have few fully reasoned theories and these, it will be seen, are flagrantly at variance with the facts to be explained. We subsist on a number of architectural habits, on scraps of tradition, on caprices and prejudices, and above all on this mass of more or less specious axioms, of half truths, unrelated, uncriticized, and often contradictory, by means of which there is no building so bad that it cannot with a little ingenuity be justified or so good that it cannot plausibly be condemned."

Here is something constant in our world of flux!

(Parenthetically, I share John Burchard's doubts regarding architectural "research," and am probably even further from the conventional wisdom in this regard than he. I observe that where convincing theories have developed research has prospered and I suspect this coincidence is not due only to chance.)

But I would not be writing this essay if I did not hope to contribute positively. I have found both helpful and evocative discussions and reading on systematic problem solving. Some of the talk on this currently fashionable subject is aimed at mystification. That is not my intention here. I agree with Barkley Jones, who introduced me to some of these ideas, that a good deal of the mystery that surrounds the design process can be dispensed with at no great loss.

This argument says that design is a series of decisions and that decision making (or problem solving) follows a pattern something like the following diagram:



The puddles, in fact, all overlap and even the most well-ordered decision making process will be continually short-circuited. But, besides the fact that decision models have proved useful in applied mathematics and operations research, such diagrams coincide with what we observe in a rather common sense way to be the design process.

The diagram says that it is the first step in the solution of any problem to identify a problem worth solving. In the modern world (or any of the worlds that appear to have preceded it) this should not be difficult. But Dean Hurst has pointed out, in a somewhat different context, that much of the energy of even very talented contemporary architects is dissipated on frivolous and perhaps pernicious activities, and many of us spend our lives wrestling with problems that are unworthy of our attention.

The diagram asserts that the next step in the problem solving process is to collect the information the architectural problem solver needs about the general nature of, say, all cathedrals, all ash trays, all highway networks, and data about the conditions, temporal and spatial, peculiar to the specific cathedral, the specific ash tray, or the specific highway network. Several architects' clients (one of them, sadly, my own) have recently explained to me in vivid terms that organizing information is not an activity at which architects excel. The fact is that it is difficult to find even modest, accurate, and systematically organized information on any aspect of architectural practice.

It is the third step in the decision making process that architects approach most directly and consciously. We spend a good deal of our time on the construction of alternative solutions to design problems, but even here we often fall into the trap of latching onto the first "solution" that comes to mind.

It is the fourth step, the development of value systems by which to judge the merits of competing alternatives that commands the attention of most people interested in "theory of architecture" or in the criticism of buildings. It is this step in the design process which I propose to discuss.

Classical education has (at least until recently) dealt with values and this suggests that our concern with such education is wholesome. However, architecture is still a visual art and this means that visual education of architects must be intensive and continuous.

Wooten (and Vitruvius) discussed architectural values. "Well building hath firmness (technical values), commodity (social values), and delight (formal values)." The relevant combination of values will depend on the type of project. But while all judgments are based on "value systems" these are seldom articulated.

Values against which to judge design for suspension bridges are easily identified — they are purely technical — and penalties for error will be exacted quickly. Such values however are not useful in evaluating the design of summer cottages.

We debate "what (or whose) value judgments are to be used?" It seems reasonable that on one hand the designer's or his client's taste should judge a custom built house, but in mass housing, where many different people will use similar types of dwellings, some kind of collective preference must operate. (Casual acquaintances often refer me to the passage from a book, reputedly on architecture, in which the hero blows up a housing project because the proportions of the door jambs didn't follow his specifications. I am expected to respond approvingly — as if we gave out dynamite with our diplomas. I am not sympathetic to the value systems upon which such actions are based.)

Appropriate value systems for monumental buildings are less obvious. Most of our difficulties lie with these questions of "formal values." A systematic approach to architecture should wrestle with this old problem and at least identify the areas in which certainty is impossible. It seems to me that we should ask simple questions. I will go with Santayana, Spinoza (and dozens of more homely philosophers) that "beauty is pleasure objectified." But this is not very useful. What qualities of the object "objectify" pleasure? Why do we "get tired" of some things that we once thought elegant (three-button coats, hyperbolic paraboids, porcelain enamel, brute concrete, Baroque architecture, etc., etc.)? Why are some forms dur-

able, or at least why do they become fashionable again (Gothic cathedrals, Italian hill towns, three-button coats, Baroque architecture)? Why do many natural things (flowers, snow flakes, sunsets, etc.) seem to many people to be "beautiful"?

Such reflections lead us away from the object to recognize that the locus of architectural worth lies, if not in the eye of the beholder, somewhere in his make up.

A former student, Jerry Goldberg, in a "Theory of Architecture" term paper based on ideas from Anatol Rapoport's book, *Games, Fights, and Debates*, postulated a "game theory" explanation for aesthetic preference. In Rapoport's terminology a game is a contest, for one or more people, in which rules are decided in advance. Rules are arbitrary, or at least may appear arbitrary, but once settled one can win only by playing within the rules. There are two issues: 1) Are the rules relevant (useful, challenging, provocative)? and 2) How skillfully is the game played?

This may be the process by which we try to organize and make understandable a chaotic and surrealistic world. Our parents give us our first rules. If they are useful (for day-to-day or moment-to-moment or year-to-year decision making) we can devote more time and energy to more creative activities, i.e., the development of more complex games. If the rules are not useful, we discard them or else our lives break down. There may be a gradual divergence, for all society, between the "games" it plays and the context in which they are played; that is, social custom sometimes outlives the usefulness.

A municipal traffic system is a kind of game; the rules (red, green, and yellow lights, etc.) are arbitrary. If we don't follow the rules somewhat arbitrary penalties are exacted through traffic fines, etc. However, other penalties (head on collisions at eighty miles an hour) are not arbitrary at all and produce results that correspond to an observant man's interpretation of "nature."

We can describe natural phenomena as a series of "games." We cannot explain the reason for the games, but we can understand their rules if we pay close attention. The results (flowers, etc.) seem to most of us to be generally satisfying, and often fascinating.

Such architects as Kahn and Mies play sophisticated games by rules relevant to contemporary life. They play their games rigorously (they don't cheat), they play skillfully and, to spectators interested in similar games, the "play" is absorbing.

The preceding paragraphs do not attempt to "explain" architecture. They may unite it with other activities. They suggest that the preoccupation with ritual, so apparent in the life of "savages," may simply have gone underground and, while carefully concealed, is still powerfully operative in modern life. Suzanne Langer (the patron saint of the lay epistemologist) says that "the love of magic, the high development of ritual, the seriousness of art and the characteristic activities of dreams stem from the same roots" and that "a savage who beats a tom tom to drive off his brother's malaria would never make such a practical mistake as to shoot his arrow's blunt end forward or bait his fishline with flowers. It is not the ignorance of causal relationships but the superintention of an interest stronger than his practical interest, that holds him to magical rights.

"This stronger interest concerns the expressive value of such acts . . . human behavior is a language: every move is at the same time a gesture. Symbolization is both an end and an instrument. So far (epistemology) has treated it only in the

IN SEARCH OF THEORY IV BY JOSEPH PASSONNEAU

latter capacity and philosophers have ample reason to wonder why . . . man's mind . . . has grown beyond the limits of usefulness, assumed a tyrant's roll and lured him into patently impractical ventures." She deduces in *Philosophy in a New Key* that these phenomena can be explained only by human search for "the quality of meaning in its several aspects and forms."

To take a homely example: modern clothing, whether worn by a banker or a Beatle, is not in detail "functional." Its true function is exactly as a "symbol" (in Langer's terms, "sign") that the wearer is a banker — or a Beatle. I am always struck, when I visit "art" schools, by the conventionalized uniforms with which art students proclaim their unconventionality.

Buildings clothed in "high fashion architecture" tell us, in muted but opulent tones, from the cornice details, the furnishings in the lobby, the art in the president's office, to the receptionists' hair styles, the position in society of the corporate occupants. Much of the most heated architectural discussions deal with such "architectural clothing." These debates often purport to defend moral positions, and are conducted with little regard for the rules of elementary logic.

Most, though not all of us, would agree that it is more sensible to clothe 20th-century buildings in machine age paneling than in Gothic casements, though it is less clear that bronze rolled sections are more "contemporary" than, say, cast-iron grillework. But so durable a preoccupation as architecture must have significance far beyond such surface meaning.

The few modern buildings that arrest us all communicate with us at a "religious" level, and if we were not capable of such shared response we would probably disintegrate as a society. We agree that such buildings are beyond function, or, stated in a more acceptable way, will elicit their own and new functions. These attitudes are most appropriate to ritualistic buildings such as churches, courthouses, or corporate office buildings, and less so to factories or scientific laboratories. (In discussions with the scientists who inhabit an architecturally powerful laboratory, I have defended what the inhabitants regard as functional quirks by arguing that the building was financed largely by federal money, and that it was about time that the National Science Foundation supported really important things such as architecture. I was serious, but my biologist friends are not entirely convinced.)

To come back to our diagram, it does not make sense that we almost completely ignore the "testing" of architectural solutions. But "testing" can have no meaning if we go on convincing ourselves that the measure of quality in, say, a school is that it looks like no other school conceived or built. (We can't indefinitely expect our clients to be equally gullible.) A scientist or engineer (or perhaps a classical architect) would tell us that excellence is achieved through observation, experiment, reflection on, and refinement of simple and important ideas.

Testing is, in the best of circumstances, hard work and is particularly difficult when measures of excellence are obscure. But every design, conceived or built, is an approximate solution to the problem it was intended to solve. Many designs are simply first approximations and their failures, if recognized, could be as instructive as their successes.

Even the casual reader will detect that I am not entirely convinced by my own arguments. But I am certain of two things significant to teaching.

First, while many will argue that systemization (what else could a "theory" be?) is the death of art, I agree with Joyce Cary that "the chance of destroying an original genius by too much scholarship, too rigid a conceptual drill, is much less than that of leaving him, when at last he is ready to do mature work, with a muddled mind and a feeble grasp of elementary technique."

Second, as young architects we all learn by mimicking the stylistic habits of architects whom we revere, in much the way that primitive adolescents learn from their elders how to fish, play tag, or avoid tigers.

The conclusions regarding curricula and faculty to be drawn from these two propositions are direct and sobering.

Dear Joe:

Is it too late — or is it perhaps even presumptuous and wholly irrelevant — for one of the local entertainers to enter a demurrer to the Curriculum Changes proposal of February 26th? I can't say that I know what I would like to see changed; it's just that I sense an inadequacy at the heart of the scheme which troubles me, since it makes meaningless everything I try to teach the customers, from Pyramids to Pisa.

What grieves me, of course, is the absolute centrality that is given to the concept of "problem-solving." There's no denying that all architects, ever since Imhotep, have had to solve various kinds of problems in order to get their buildings up off the ground and to make them stay up, and in order to satisfy certain utilitarian functions which their commissioning patrons considered important. But that problem-solving has at any time been the prime generating force behind the invention of a significant work of architectural art I would unreservedly deny. What "problem" was solved by the erection of the Parthenon in that particular size and shape? Or of the Baths of Caracalla or the Cathedral of Chartres or the palace at Versailles? None of these can be regarded as a "solution to a problem" any more than can Masaccio's "Tribute Money" or Manet's "Breakfast on the Grass." I would look upon each of them, instead, as an eloquent affirmation in the face of, or as a moving address to, a certain highly-charged human situation about which certain people were deeply concerned — the same can be said of the works of Masaccio and Manet — but the situation was not fundamentally altered either by the erection of a building or the painting of a canvas. Athens was irremediably ruined by interurban warfare and local factionalism in the lifetime of the Parthenon's builders; the Roman state continued to crumble throughout the third century: the grandiose aspirations of the medieval French kings and bishops were frustrated and came to little or nothing; and the second king to follow Louis XIV was beheaded, some eighty-five years after the death of Mansart . . . all of which diminishes by not one iota the stature and the compelling power of those four buildings — any more than the collapse of the Republic of Florence negates or makes irrelevant the "Tribute Money," which addressed a situation which threatened the Republic's survival. Masaccio's argument was powerful and moves us still, even though the Medici tyrants won out. The same can be said for Iktinos's plea for unity, reason, and justice in the face of an irrational and schismatic situation.

Eloquence is a word you like, I know. So do I. We both respond to it in those four buildings and in thousands of others. But if every student

of architecture has to justify everything he does on the basis of pragmatic problem-solving, how can he ever make an eloquent statement about anything at all? How can he ever go beyond the neat and tidy elegance which is the best but terribly meager virtue of the "good design" architecture of characters such as Mies? Might it not be a good idea to divorce architecture from its unholy alliance with science and technology and to cry aloud that the times call for eloquent avowal concerning the most fundamental human and ethical issues — that the problems that can be solved by efficient reasoning are not the ones with which the genuine artist should ever be concerned? Can't we somehow set our students free from the purple-inked program which sets up one-half of an equation, the other half of which must be provided, item by item, by a sparsely mathematical diagram of a structure? How can one be eloquent under such conditions?

Eloquently, Norris Smith

Dear Norris:

As you know, I am not completely unsympathetic to the position you take in your letter of March 31.

But without belaboring the point, I do not see how anyone can be eloquent until they learn how to at least parse a sentence.

There's a ditch on both sides of every road.

Sincerely yours, Joseph R. Passonneau

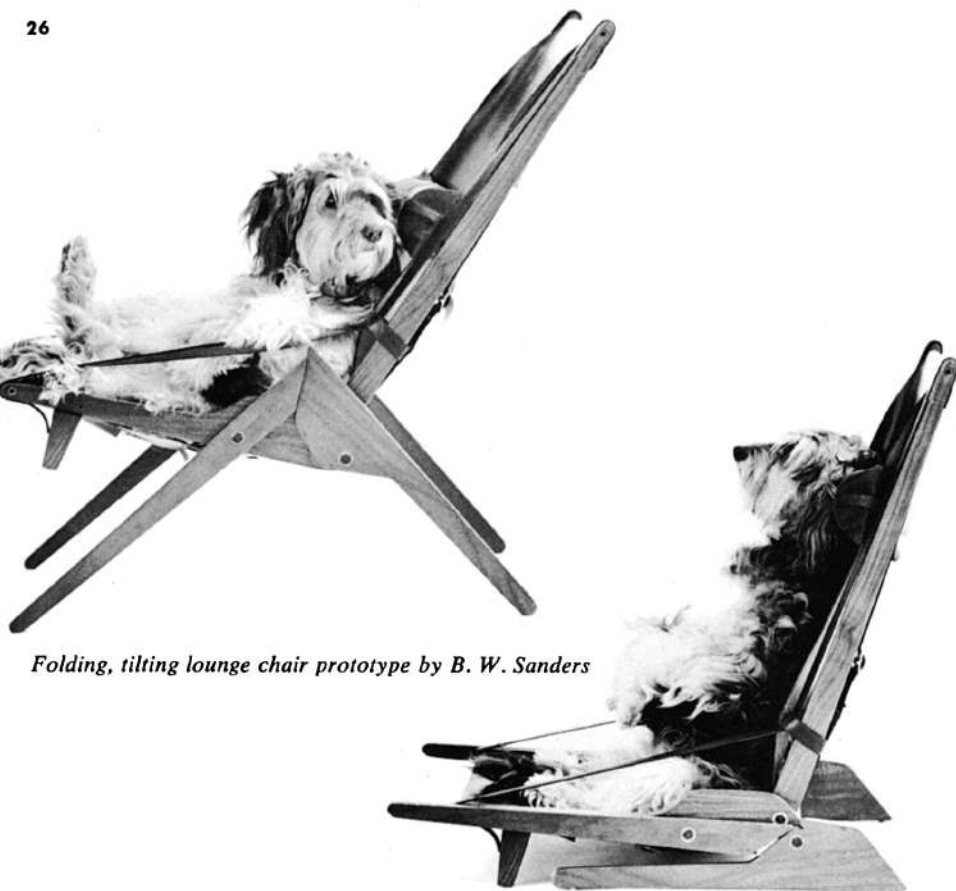
Dear Joe:—

Sorry, but no dice; I cannot allow you that way out. What you imply is that architectural students today (and ours in particular) are being schooled in a kind of strict counterpoint on the basis of which they will later be able to write grand fugues, sumptuous passacaglias, thundering oratorios . . . but that's not the case, as we both know. They will be able to compose attractive motels, neat clinics, well-lit suburban elementary schools, sanitary hospitals — but never a courthouse, never a cathedral; in fact, not even a house that would enhance, rather than understate and minimize, the significance of the institution of the family. When even the most admired practitioners, such as that supreme non-architect Mies, are committed to producing totally ineloquent buildings, in a style that does not vary from apartment to whiskey building to school to courthouse, why would we imagine that anyone trained in such procedures would ever be able to speak differently?

Remember the importance that Orwell attaches to Big Brother's linguistic innovation called Newspeak? . . . that reduction of English to a kind of telegraphic headline-ese, in which simple directions, rudimentary facts, and catchy slogans can be couched, but which makes impossible every sort of eloquence and precludes the very possibility of subtle thought about difficult and highly charged ideas? Have you ever considered the proposition that the constructivist style of modern architecture constitutes a simon-pure variety of Newspeak? That is to say, a "language" of irreducible simplicity in which everything pertaining to our rich tradition of architectural expression is purged away, leaving only the barest skeleton of a vocabulary, amounting to scarcely more than a set of directional signals?

Now let me be the first to concede that this reduction is also characteristic of many aspects of modern painting and, if you will, of modern "life." More people are doing emptier and more routinely monotonous jobs these days, and finding

(Continued on page 34)



Folding, tilting lounge chair prototype by B. W. Sanders

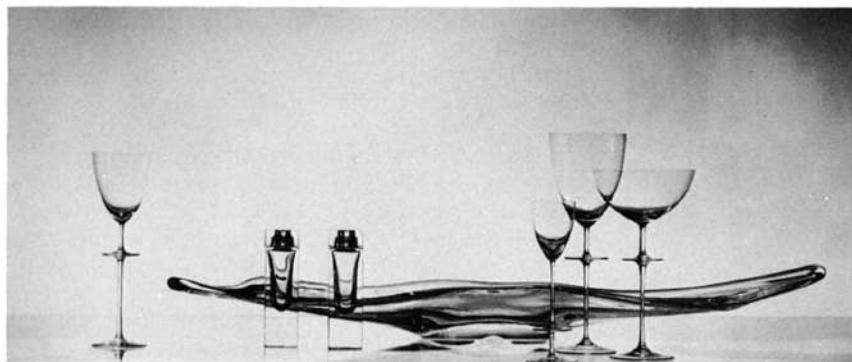


"Z" chair of metal and leather. Designer: Paul Tuttle; manufactured by Carson Johnson, Inc.

CALIFORNIA DESIGN 1965

The California Design exhibition of the Pasadena Art Museum is a triennial highly selective juried showing of articles for domestic use designed and/or manufactured in California, within the last three years. The program is made possible by a grant from Los Angeles County. The exhibition includes the entire spectrum of production, from handcrafted one-of-a-kind works of art, to designs made to meet the discipline of mass production. Objects purely decorative as well as those which, though primarily functional, achieve esthetic success are included. Recognition was given to designs which incorporated original solutions, or which showed a special quality of vitality and

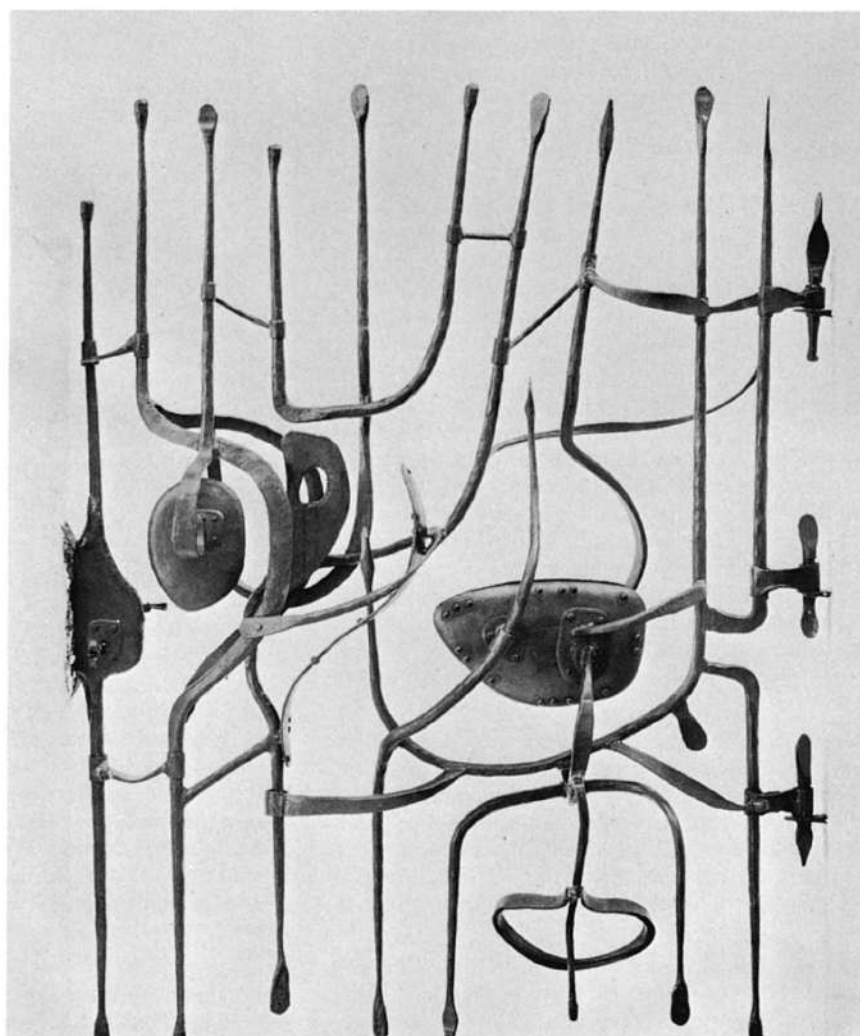
Discuss stemware, lead crystal salt & pepper shakers and bowl. Designer: Dorothy Thorpe.

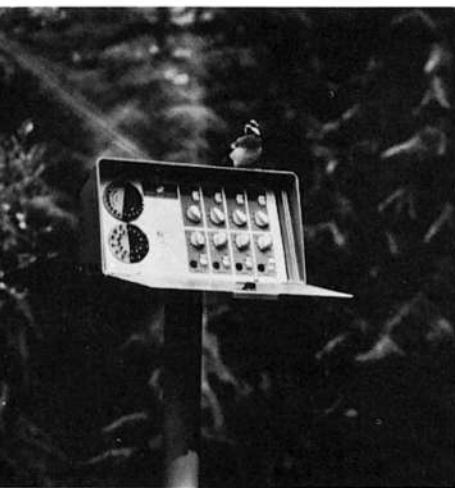


Franciscan "Discovery" dinnerware. Staff designed, Interpace.



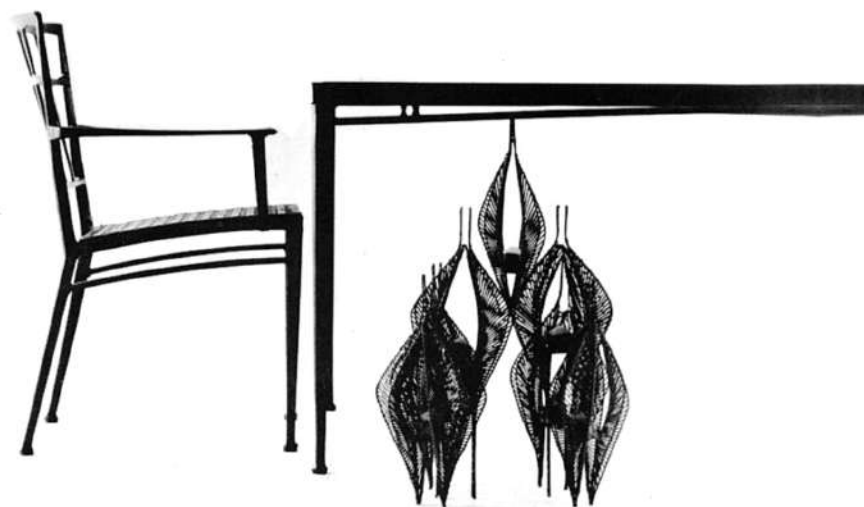
Forged iron gate by Toza Radakovich





Sprinkler system console. Designer: Melvin Best; Rainbird Sprinkler Mfg. Co.

Stoneware vase by Oscar Bucher



"Atrium" dining table and chair. Designer: Hall Bradley; manufactured by Brown Jordan. Sculptured menorah by Priscilla Kapel.

innovation. The 1965 exhibition opens on March 28th and will be shown through May 9th.

Approximately one-half of the exhibition is comprised of manufactured articles, either limited manufacture, mass produced, or prototype for manufacture. The other half is one-of-a-kind objects, conceived and executed by the California craftsmen. An effort was made to have the exhibition be representative of the best production in each field. In the case of the crafts, there is a small invitational section which makes up about a third of the crafts shown. In addition, craft submissions were received and juried in both Oak-

land and Pasadena. Approximately 250 works, two-thirds of the craft section, were selected by this method, from approximately 1200 submissions from throughout the State.

For Industrial Design: Jury — Eudora M. Moore, Director of the Exhibition; Rex Goode, Director of Installation; Walter Hopps, Director of the Pasadena Art Museum.

For Designer Craftsmen: Jury — Rex Goode, Director of Installation; Marcia Chamberlain, Teacher and Craftsman; Wayne Long, Director of Exhibits, Otis Art Institute.

Cast aluminum door by Malcolm Leland

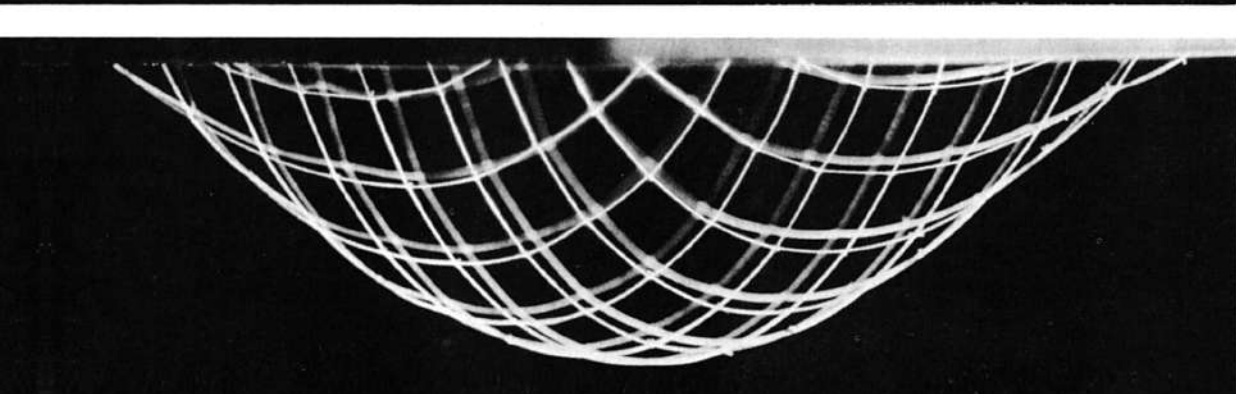
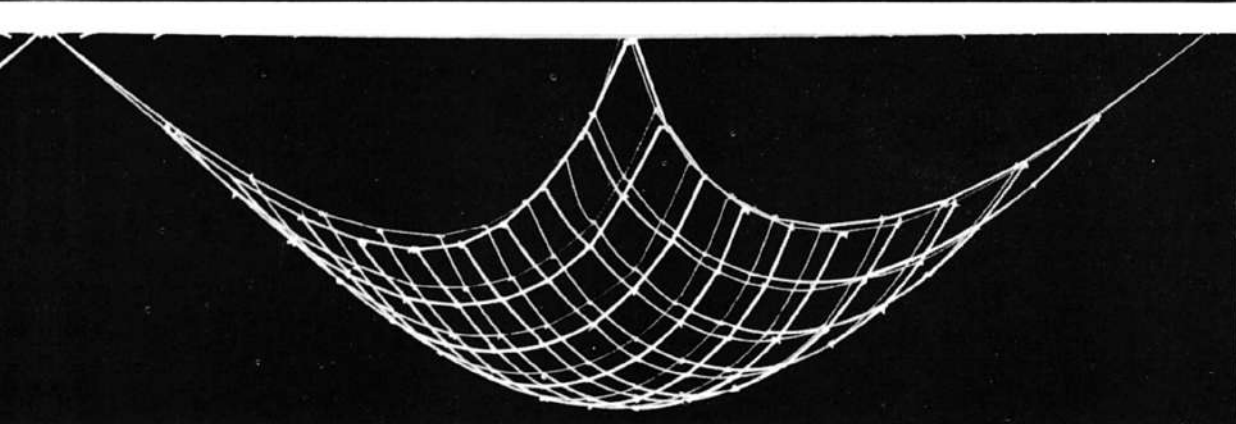
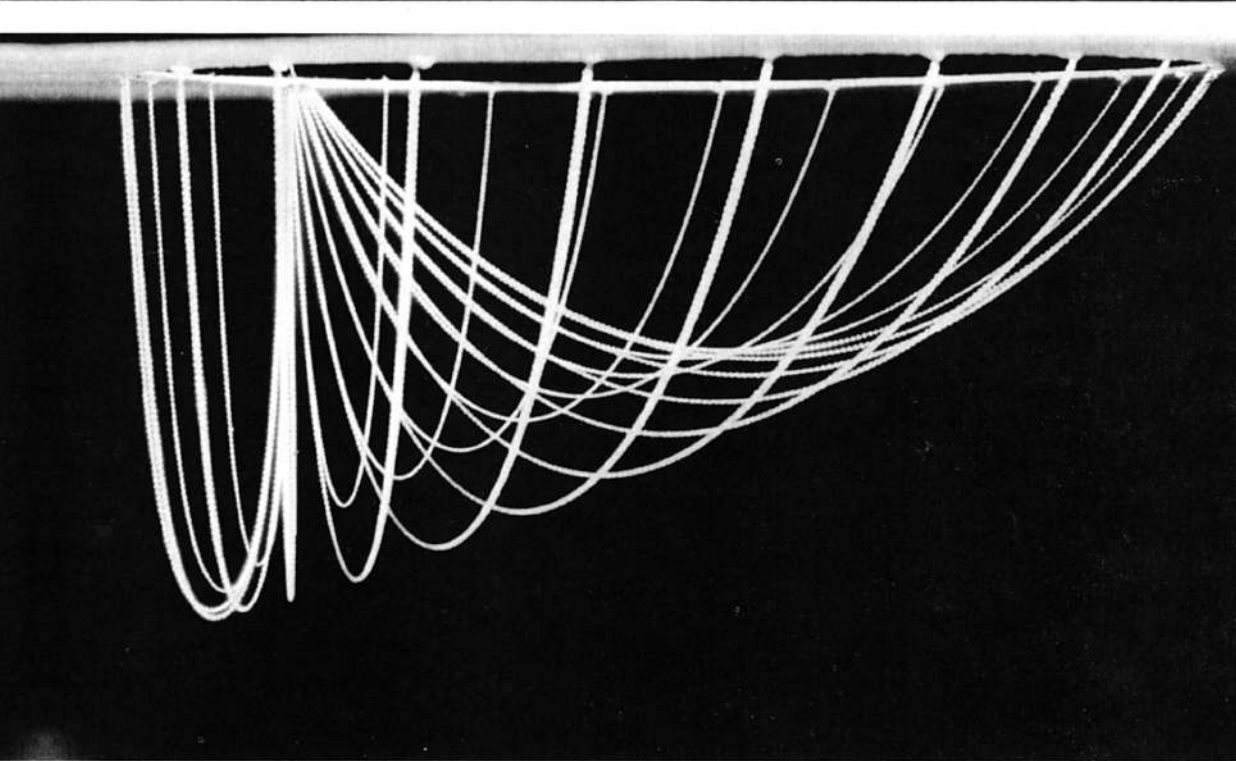
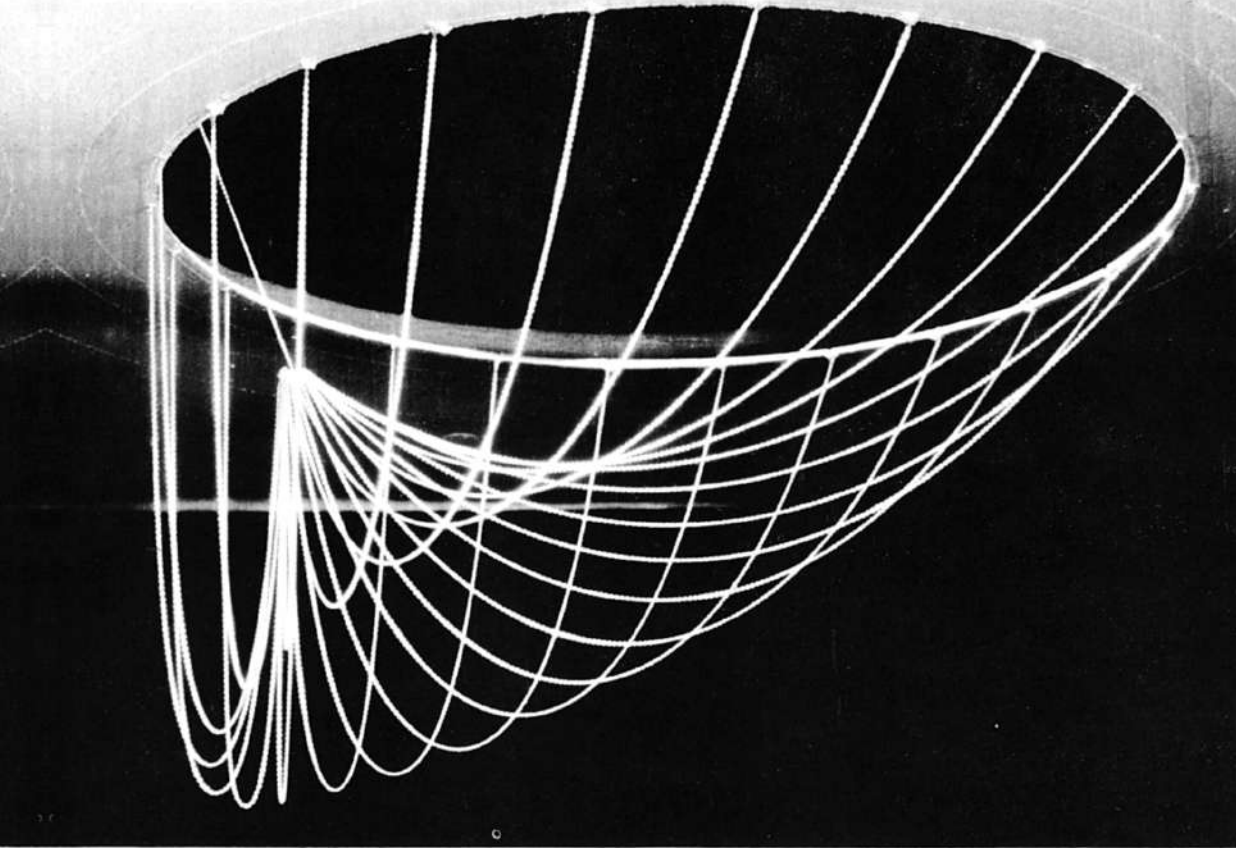


Walnut settee by Richard Harrison



Handcrafted doors by Mabel Hutchison





A true lightweight building involves two factors which must be considered: 1) structural efficiency and 2) economy. A lightweight building has two kinds of economy: 1) economy of time, and 2) economy of energy.

1) Economy of time: When a competition is held for the design of a structure, a competitive way of arriving at the cost of the structure results. This is termed economy of time. The economy of the structure is tied into the time of construction by competitive means.

When you develop an experimental structure, it is often stated that something new costs more to construct, that it costs more to experiment. New structures usually cost more at the beginning, although they can become economical in the long run, after the problems encountered at the beginning are worked out. In pre-stressed concrete, you invest less in concrete, less in steel and less in labor than conventional construction. Sometimes pre-stressed concrete, even though relatively new, costs less than conventional construction. Another example is the construction of membranes, which do come under the cost of present every-day structures.

2) Economy of energy: When you design a minimum energy building, you must have a clear definition of the task. You cannot design a minimum energy building by dropping the safety factor; you must maintain the safety factor and keep the weight and energy down. Initial development costs of low energy structures are high, but eventually such structures will become less expensive than conventional ones.

If we are developing structures for a particular task, it will only be a matter of time before we develop a structure using the least amount of energy. The function of buildings is always changing. With the changing of tasks for individual buildings, such as houses, the definition of an individual task is always changing. Certain types of buildings change their tasks, such as churches and monuments, but the change is slower than for other types of structures.

A building or structure has a birthday; it starts getting old, and sometime in the future, it will die. Most structures or buildings are dying at the time of their design. Have you ever constructed a building so that, at the time of handing the key to the owner, you considered the building to be up-to-date? Most architects would probably say "no." Why? Because tasks are changing so rapidly. Some architects feel they will build a structure to last forever, but history shows that buildings exist only for a limited time. Buildings should be planned only for limited periods.

Indian tents, houses of mud, etc., are completely changeable. This type of structure can always fit the task. If you build a structure that is adaptable, it does not have a birthday; it is not "dying"; it can be adapted. It is never old; it is always new.

City planning should be adaptable; a city should be changing, should be growing. If a city is not building, it will die.

Man is different from all other creatures in his ability to use tools. He progresses no faster than he develops new ones. Due to his inherent nature, man can build his own house using a high degree of technology.

The most highly developed structural techniques are to be found in nature, such as the human body, plants, trees, etc. Structural studies in lightweight construction could receive much information from an understanding of the human skeleton. Often man-made forms resemble natural forms when the structural demands are similar.

by Frei Otto

In the sense that man is a living entity, most of the materials used by this "living nature" to build enclosures could be classified as "non-living nature." Technological limits of structure thus do not exist in man, but in the materials he uses. In this sense all "living nature" dominates "non-living nature," and life is a constant battle between the two.

Beams, highly developed by man, are very seldom under equal loading. Often in heavy structures, the proportion of dead load is very high as compared to the live load. In using a light-weight structural system, the live load is apt to nearly equal the dead load. Thus the live load takes prime consideration in design of light-weight structural systems.

Consider the following uses of materials in light-weight structures:

A tapered profile is better use of material in an evenly loaded beam.

Any construction of triangles (trusses) permits easy calculation of stresses, but too often we design first, then calculate the resulting stresses. This is not good structural design.

Material can be economized by division of forces, i.e. as in the division of forces at joints or the subdivision of forces as in a tree.

An economy of materials in trusses is possible if material is used only where needed. This will result in a profile similar to several found in nature, but will be much more difficult to calculate than the less efficient truss composed of triangles.

A possible means to build a truss with stiff corners would be to construct it from individual members formed from sheet metal. When used as a column or tower, the load variations are compensated for by doubling plates at the bottom.

Another possible means to build a truss with stiff corners would be to construct a framework of a membrane with wire mesh and inflated balloons. After the concrete or plastic that is sprayed in the crevices has set and dried, the balloons are deflated and removed. The resulting framework is similar to several profiles found in nature.

The actual stiffening of suspension structures can be accomplished by two methods:

- (1) pre-stressing
- (2) the structure's dead weight

The structure's dead weight is self-explanatory; but to understand stiffness gained through prestressing we must have a definition of what we mean by it. Prestressing we define to be those stresses within a structure caused by a condition unrelated to the structure's dead weight and not dependent upon the force of gravity. As an example, a simply supported wood beam is *not* prestressed, in that without the force of gravity imposed upon it there would be no stresses.

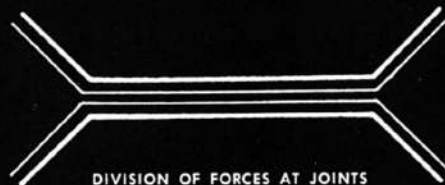
PRELIMINARY STUDIES

Stage 1 In the first stage, we decided to make an intensive study of catenary line systems. Catenary lines were formed by hanging fine jeweler's chains from two points. If it were possible to "freeze" these chains in these positions and invert them, there would theoretically be no bending moments due to the inherent nature of the curve. A fine jeweler's chain with soldered links was the most accurate device to use in working with such a system.

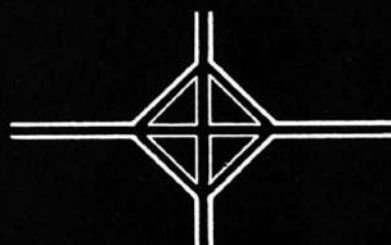
Stage 2 In the second stage, we turned to a three-dimensional study of catenaries. A circle was cut out of a cardboard template, and small notches cut at the eighth points. Four chains of



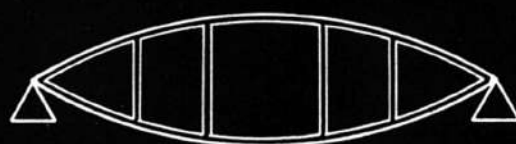
TREE STRUCTURE



DIVISION OF FORCES AT JOINTS



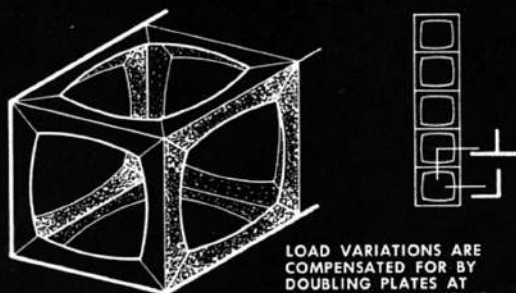
DIVISION OF FORCES AT JOINTS



HARD TO CALCULATE, BUT PERHAPS MORE EFFICIENT



EASY TO CALCULATE, BUT PERHAPS LESS EFFICIENT

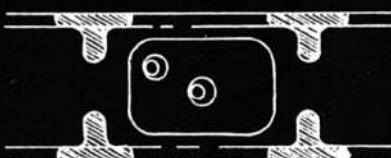


BASIC CELLULAR UNIT

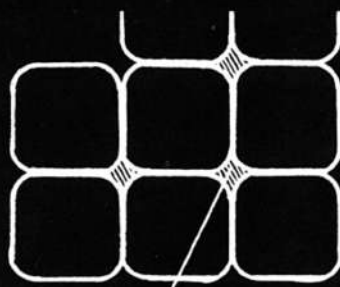
LOAD VARIATIONS ARE COMPENSATED FOR BY DOUBLING PLATES AT BOTTOM AND BY USING THINNER PLATES IN TOP AND HORIZONTAL MEMBERS



ELEVATION: INFLATED BALLOONS



SECTION



PLAN: PUMP OR SPRAY IN CONCRETE OR PLASTIC

equal length were then hung in the template, each being fastened at both ends in the diametrically opposite notches. This resulted in a catenary "dome" which could be varied in shape by re-adjusting the chain lengths in the notches. Later, another chain was added at the intersection of the original chain. By adjusting it in various ways, interesting effects were produced. (At this point, however, the cardboard needed to be replaced by a plywood template, as the cardboard was too flexible. Photos 1 and 2.)

Stage 3 A series of small models was made by cutting and forming common wire screen into various configurations. It was pointed out that the structural properties of wire screen forms were similar to those of lattice shells. This stage would thus serve as a convenient means to investigate the possibilities of a lattice structure.

Stage 4 A catenary net was constructed to serve as a model for a lattice dome. In this configuration, the net would have only four contacts to its base, thus eliminating the complication that would have been involved in the footings of the scheme in photo 4. This catenary net was placed on a plywood base that had common pins evenly spaced on the four diagonals of concentric rings evenly spaced. The four legs of the catenary net were attached to the various pins in these diagonals. Photographs were taken of the various configurations (photos 3 and 4). It was determined by intuition which position would be best for the actual lattice dome project.

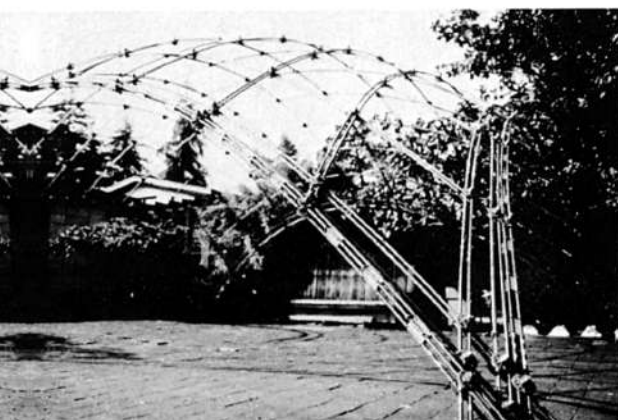
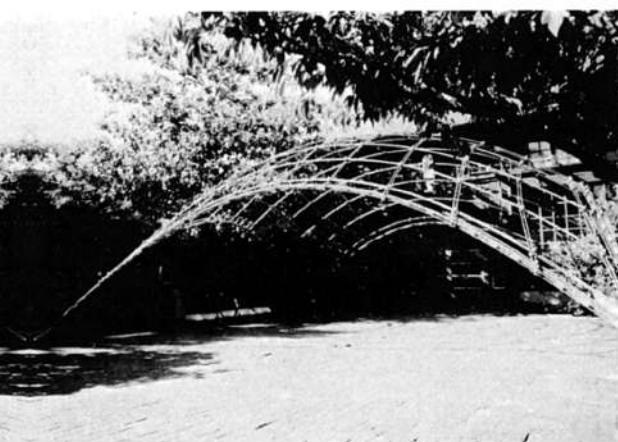
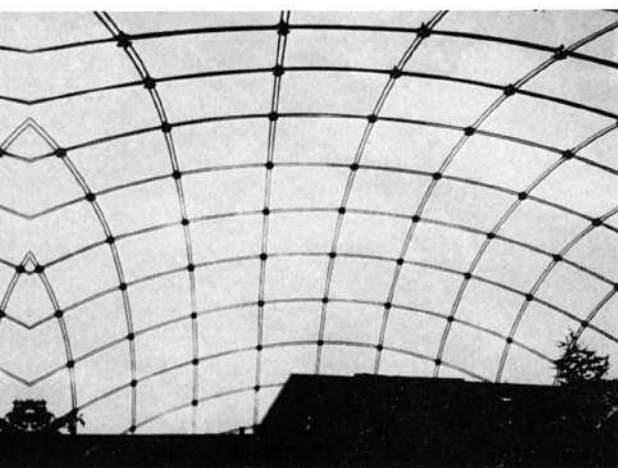
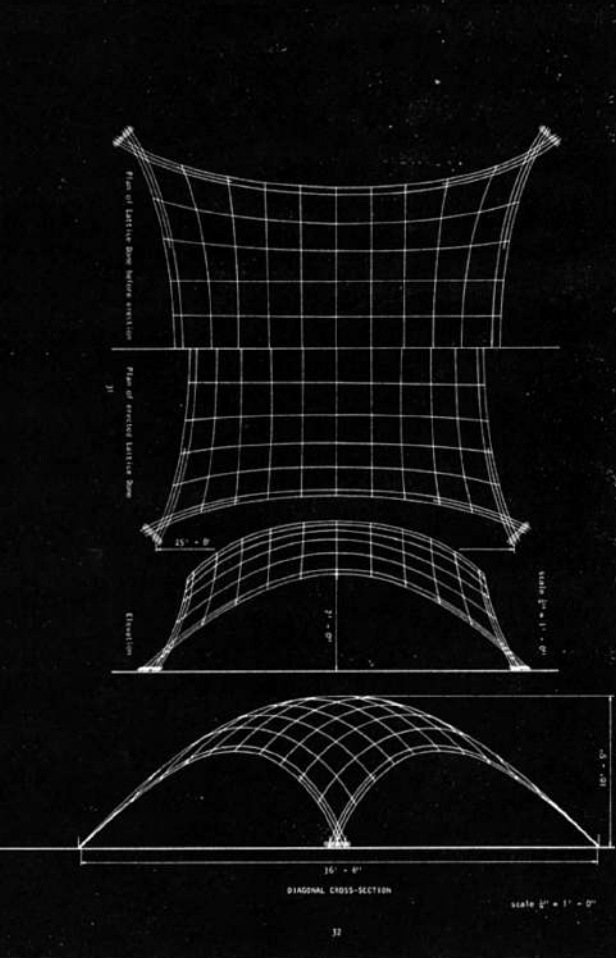
Stage 5 A scale model of the architecture courtyard of the University of California was built next at a scale of $\frac{1}{4}$ " - 1'-0". Inside the model courtyard was placed a wire screen scale model of the lattice dome as determined in stage 4.

Samples of materials which might be used in constructing the dome included various aluminum, plastic, wood, and steel sections. One-half inch deformed steel reinforcing bars in 40' lengths were decided upon.*

A scaled working drawing was made of the proposed lattice dome using suspended jeweler's chains to determine the curves of the chords. These curves were successive interpolations between the straight center chords and the curves of the perimeter chords which were later to become the perimeter arches.

Upon erecting the structure it was observed that the east and west perimeter chords had buckled near their centers, all four rods in each chord being bent beyond the elastic limit in spite of the wood spacer blocks. . . . It was discovered that the fault was in the connections being too tight. All connections not on the two center chords were then loosened, allowing the lattice to deform elastically and alleviating the stresses which had caused the buckling. The two failure areas were then bent back to their original shape and stiffened by the addition of short rods perpendicular to the perimeter chords and connecting them with the adjacent chords.

- * 1. These bars were immediately available, the entire project having a severe time limit.
2. The local distributor was willing to contribute the material.
3. The use of reinforcing bars in pairs with cast iron washers and bolts produced a satisfactory joint, whereas other materials would probably demand drilling holes at the joints, thus weakening the member.
4. As the joints would need to remain loose until the dome was in final position, the deformations on the bars would help eliminate slippage.
5. One-half inch reinforcing bars seemed, by intuitive bending tests, to possess the proper elasticity for the project.



At this point, wood bracing members were added to the base of the tower to prevent overturning. Steel cables with turnbuckles were inserted near the corners of the steel lattice, and diagonal tie cables were attached from the corners of the lattice to the legs of the tower. All these cables could be subsequently tightened in order to assist in the shaping of the dome.

The shape was adjusted to agree with the catenary chain model by means of cables and turnbuckles. As a preliminary test of the strength of the structure, Dr. Otto, weighing approximately 160 pounds, supported his entire weight on the point in the structure which was suspected to be the weakest. A 220 pound student put his weight on the same point, causing a deflection of about 1½". The dome then returned to its original shape. It has subsequently been subjected to loads of four or five men climbing on it at once, and although it is remarkably elastic, it has shown no signs of failure.

In future structures of this type it would be advisable to use a stiffer steel in the rods. Also, a great deal of erection time could be saved by designing a connection which would need no hand wiring.

At a later date the entire structure was wire-brushed, and a coat of rustproofing primer was applied to all rods and connections. At a future date a comprehensive program of load-testing will be carried out, and experimentation may be made with various coverings which could be applied to the structure.

ENGINEERING COMPUTATIONS

Before the structure was erected, the compressive stress was estimated for the reinforcing bar to be used. By the use of Euler's equation, which is stated:

$$\frac{P_E}{a} = \frac{\pi^2 E}{(l/r)^2} \quad \text{or} \quad P_E = \frac{\pi^2 E(a)}{(l/r)^2}$$

We were able to determine the stress in each bar for the longest laterally unsupported length of 30 inches, using a #4 bar with these properties:

Area (A) = 0.2 inches
Modulus of elasticity (E) = 30,000,000
lbs./sq. in.
Radius (r) = .125 inches

We arrive at the following equation:

$$P_E = \frac{\pi^2 (30,000,000) (0.2)}{(30/.125)^2} \frac{\text{LBS.} \times \text{IN.}^2}{\text{IN.} \times \text{IN.}^2}$$

$$P_E = 1030 \text{ LBS.}$$

Therefore, the allowable compressive force before buckling will occur is 1030 lbs. per bar.

When actual tests were run on sample bars, the compressive forces required to buckle the bars ranged within 5% of the theoretical estimate.

It was felt that the allowable force was sufficient to insure the safety of the structure upon erection.

Upon completion of the structure, when the exact dimensions were known, the theoretical loading was computed. Since the structure is composed of catenary (parabolic) arches, no bending stresses should exist theoretically. Under this assumption, the maximum uniform loading that could be applied to the structure is computed to be 70 lbs./square foot.

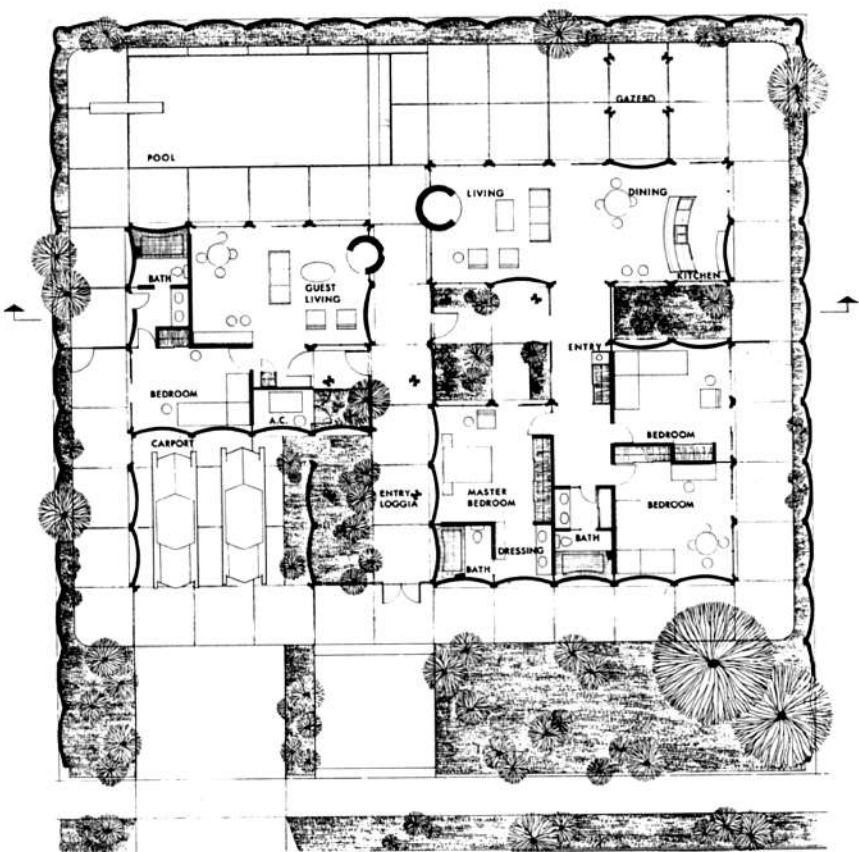
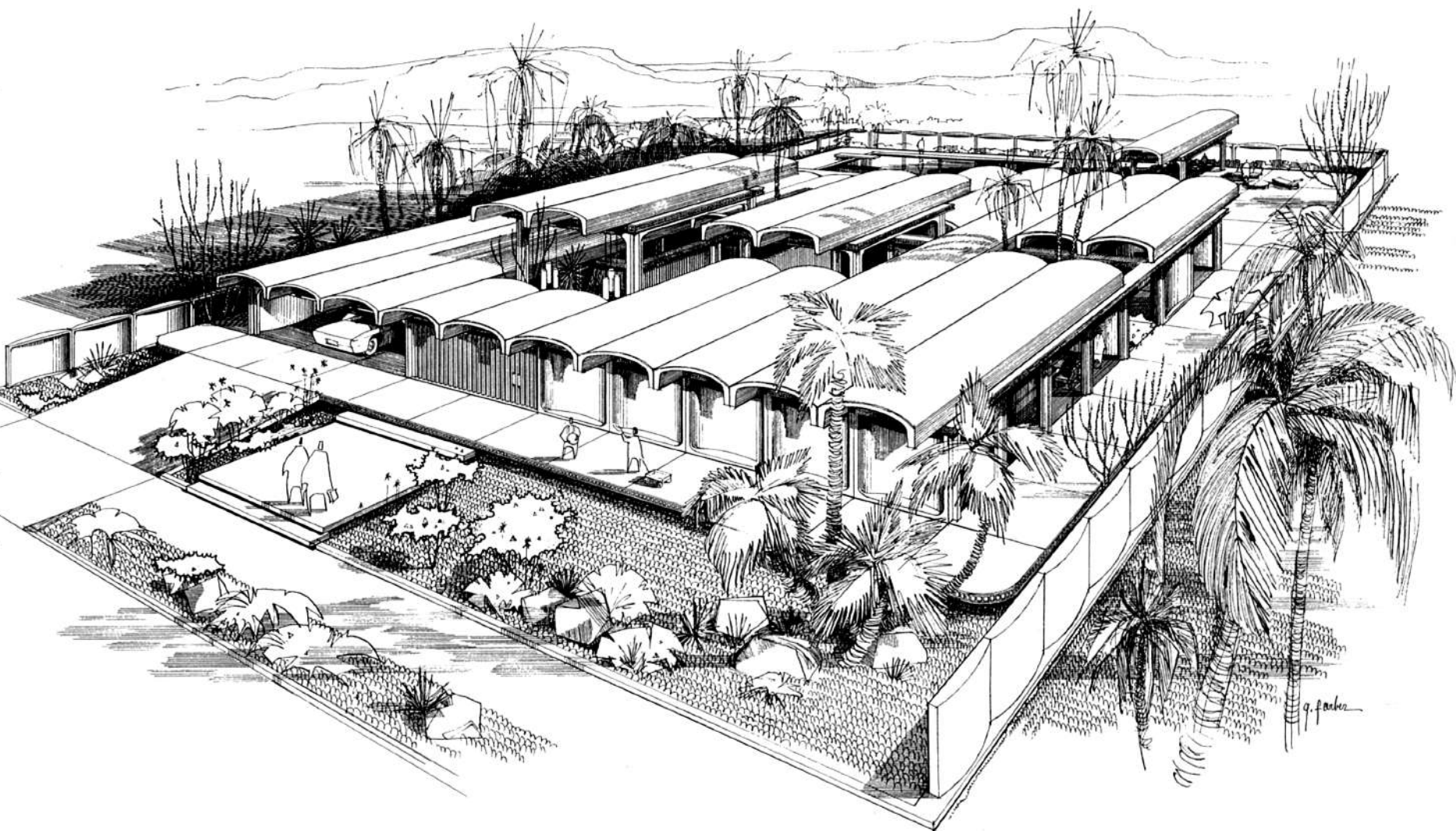
The foregoing study was completed by the following members of the graduate class Department of Architecture, College of Environmental Design, University of California, Berkeley, under the direction of Dr. Otto: Edward B. Allen, Fred M. Babcock, Robin R. Baker, Paul L. Blanton, Richard J. Chylinski, Gary L. Hansen, Dilipkumar R. Jhaveri, Jonathan Mansfield, Richard L. Medlin, Donald L. Peting, Philip S. Steel, Praditta Sukhum, Ronald W. Thurber and Joseph Cho Wang.

RICK FARBER AND ASSOCIATES

Matthew Goodwin, Associate Architect

Frederick G. Frericks, Structural Engineer

Rick Farber and Associates, Landscape and Interior Designers

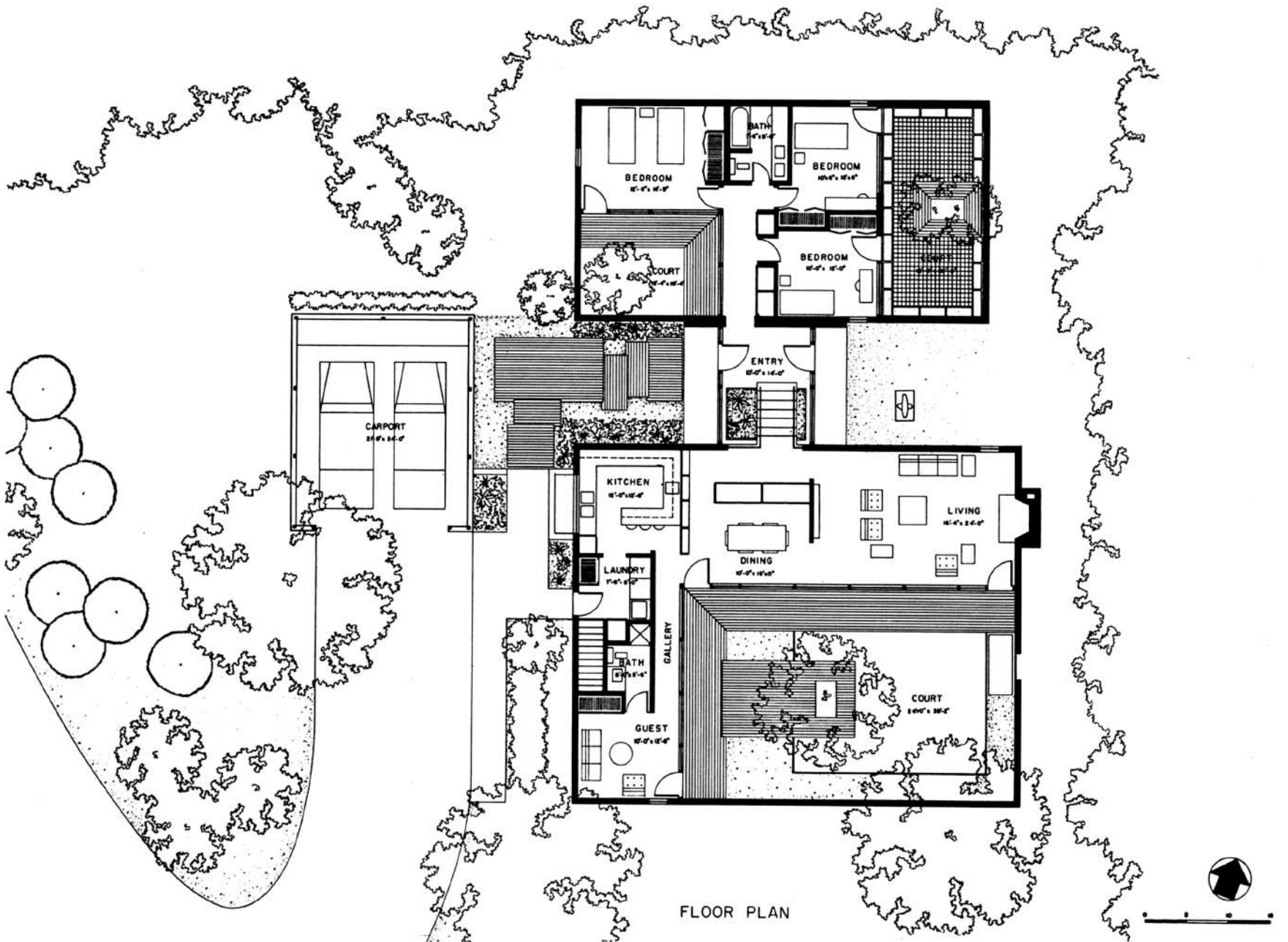


This project, on a level lot in Palm Springs, consists of a 3-bedroom, 1,836 square-foot residence with adjoining 800 square-foot guest house. The two structures, set on a concrete podium two feet above grade, are tied together by a high roofed entry loggia. The project is largely prefabricated and erection time of walls and roof is estimated at two days.

The exterior walls and the roof are made of the same basic building units: a precast, prestressed concrete arch with beams at each end forming an eight-foot-wide channel with a bowed web. A six-foot wall of the same concrete units encloses the property for maximum privacy. The units are made of high-strength low-slump air-entrained concrete and high strength steel stressing cables, forming a durable crack-free arch. Precast concrete columns are used for continuity. The use of steel forms allows the maintenance of close tolerances and minimizes fitting work in the field. Further economy is achieved by use of shop labor and reusable forms.

The arch forms, used extensively as panels for cylindrical storage tanks, are manufactured under the direction of their developer, David Pritzker & Associates.

The use of concrete was felt to be appropriate to the desert environment, aesthetically compatible with the surrounding sand and rock and allowing of minimum maintenance under difficult climatic conditions. The designer was interested in using the basic structural units to produce a variety of spatial experiences. This accounts for the different roof levels and the many linked interior courts.





JOSEPH ALBANO AND EDWARD OLENCKI, ARCHITECTS

Clients for this three-bedroom Roman brick house in Ann Arbor, Mich., are a professor of architecture, his wife and two young children. Although generally favoring the open plan, the owners feel strongly that a house should have areas where parents can get away from children (and vice versa) and considerable attention was given to their request for "light and privacy." After analyzing the client's major requirements in relation to the site, it was decided to create an inner environment. All the main living areas would open onto garden courts formed by the extension of the exterior walls of the building. The walls of the rooms facing the garden courts were to be entirely of glass. The orientation in these cases was limited to east and south. Deep overhangs would provide solar protection and additional privacy from neighboring houses overlooking the site. The privacy formed by the enclosed garden courts also provides shelter from winter winds and

makes the rooms opening on to them appear more spacious since the courts become an integral part of the house. Cross ventilation and relief from the enclosure of the courts is provided by narrow full length windows opening directly to the exterior from all court oriented rooms.

The garden courts not only give a private view and become a spatial extension but they also serve as functional extensions of their adjoining rooms. Their role is further extended into the evening by a carefully studied arrangement of lighting. The large court with its generous decks is used for gardening entertaining, dining, etc. The master bedroom court serves for quiet outdoor reading and meditation while the childrens' court with the raised deck around the birch tree clumps is essentially for play, reading, and other activities. The use of all of the courts extends far beyond the usual season for this climate.



IN SEARCH OF THEORY IV — PASSONNEAU

(Continued from page 25)

diversion in more trivial forms of entertainment, than has perhaps ever been the case before. But it strikes me that the architect has always been at his best in taking his stand against the divisiveness and the inadequacies of his society, never in "expressing" them. The disparity between third-century Roman painting and third-century Roman architecture is enormously wide: while the painter was devoted to a whimsical and intimate sort of impressionism, the architect persistently reaffirmed the great traditions that had come down to him from the previous seven or eight hundred years of Mediterranean civilization. By doing so he did not prevent the collapse of the Roman state — but who knows, he may have postponed it, and certainly he made some great affirmations which later generations have continued to find challenging and impressive, even as they have found great works of literature to be so. Is not this possibly the best the architectural artist can hope for — that his avowals may now and in the future be thought of as being commensurate with those of Dante and Rembrandt and Bach? Is not the very fact that we have Newspeak flung at us all day long by advertisers and technicians and headline writers a good and sufficient reason for the architect's shouting from the housetops — his own housetops — that we are being sold down the river?

MUSIC

(Continued from page 11)

Blessed be the Muses
for their descent
dancing around my desk,
crowning my balding head
with Laurel.

After that, a fragment of *Fragment 1956*:

... with a streak of yellow love running through
my poems, a fag in the city, Joe Army screaming
in anguish in Dannemora 1945 jailhouse
his dumb sad cellmate beaten by the guards
an iron floor below, Gregory weeping in Tombs,
Joan lidded under eyes of benzedrine ...

He can write. But you wonder by what pathos the individual tragedy — they were children then — of these poets attacked the city. Why today they seem to live lovingly within it. Ginsberg, detached, is recently back from India.

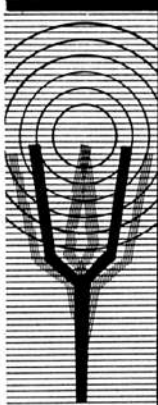
Roots and Branches, poems by Robert Duncan (1959-1963), is too large a book to be earned in a hurry.

From "Returning To The Rhetoric Of An Early Mode"

What actual gardener turning the dark earth
comes now in a cloud of verbiage

BEVERLY HILLS LOT FOR SALE with set of plans by
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over the adoring ground, a continual elegy,
as if man's falling away were only
a falling of leaves to the rich loam,
came in my twenties a figure of green panic?
a storm in the branches of what I was, shaking
till all the rising music fell thru its melodies
to rest in the bed of an abiding earth,
in the still riming return to its first rhetoric.

Duncan tells me I should overcome my aversion from the poetry of Charles Olson. We spoke of his friend, the poetess Madelein Gleason, who loaned me her book, but inadvertently I left it behind in Sausalito. I heard her read her skillful verses. Many poets do not have it. She has a new book coming to print. It is good to know how many poets cherish the friendship of their art in this continent, though gradually breaking away. Divided, they are nomad; they are without community. Desperation drives them into the desert, the rhetorical abstract, among figures of a dancing madness, an alienation which is neither existential nor absurd. The pitifulness of some of our poets should warn us: we are in need of their pity.

To throw a window open!
Time is upon whose naked stretches
hope roars
we saw the land behind us—
our wastes, our age, our hearts' loss
—and I do not know what we saw:
this man a wreckt car,
this man a Lover turn away,
this man an empty glass upon the bar,
this man a parody of what he was ...
(From *The Mabinogion*)

ART

(Continued from page 9)

Certainly "The Scene" mitigates Kitaj's attitudes and thrusts him into a defiant position. I think it is obvious that in his work, he rejects most of the given techniques and styles of the moment with conscious fervor. His openness is at once endearing and dangerous. The American psychology of eternal youth undermines him in a way, for he seems confident that he can move along in the various directions his imagination takes him, skimming the experiences for a content which is viable both for the intellectual to whom he so often addresses himself and the art buff, used to seeing work once-removed from commercial art. The unsettled style is used as a shield to protect himself from the dangers of a settled style and his symmetrical problem remains unchallenged.

In his catalogue, compiled like an autonomous work complete with three appendices, Kitaj hints at his problem. He quotes Mahler: "The creative urge for a musical organism certainly springs from an experience of its author, i.e. from the fact, after all, which should be positive enough to be expressible in words . . . my music arrives at a programme as its last clarification, whereas in the case of Richard Strauss, the programme already exists as a given task."

This quote and a discussion of what Kitaj calls Mahler's ambiguous lifelong attitude toward the vexed problem of program music suggests that Kitaj is worried. Program music, which may be likened to art with readable content, is no longer considered acceptable. Painting with a message is equally out of fashion. Yet Kitaj, like Mahler, wants to arrive at a program as the last clarification of his work. Unwilling to lend his skill — and he is extremely skillful — to the mere manipulation of forms and colors, and yet suspicious of the overt literary aspect of illustration, he is caught in a dilemma which I suspect is shared by many artists of his generation.

This dilemma is not simply a matter of finding a comfortable style. It is a deep psychological *malaise*. At its most profound sources, the *malaise* issues from an increasing belief that the individual is powerless, and that his individual fancies can have no value in contemporary life. Beaten back by the subtle hammering of propaganda, many sensitive young people have found individualism unworkable and therefore they call it outdated.

In its extreme form, the reaction against what is often called 19th century individualism is evident in the manifesto of the Parisian *Groupe de Recherche D'Art Visuel*. This group regards itself as part of the social organism. It is against the concept of mastery and detests the ancient French term of esteem, *maitre*. It is, as many of the participants point out, a "socializing" movement. The works, many of them motorized or electrified in the same way street adver-

tisements are manipulated, are intended to blend into the lives of the community. Inaccessibility of the fine arts to individuals is one of their bases of judgment. For the young men in the group, accessibility in the confines of museums is not enough. The man in the street must have art — their art — in passing.

The kinds of signals emitted by an artist like Kitaj — his personal anguish over specific situations such as mass murder in war — are not deemed proper by the research-type artists who confine their ambition to dissemination of experience of a limited order. Comments and recommendations of an artistic, individual order are ineffectual, they feel. For the group, the only resource of the artist is his formal and mechanical ingenuity.

Between the poles of purely formal art, be it kinetic, optical or hard-edge, and purely descriptive art, be it figurative painting or film, there is much space. It is this space which Kitaj traverses. Yet even he feels the pull at either pole and has not quite established his gait.

It is vain to ignore the social implications of art, particularly in New York where for the time being, art is being used in much the same way other American commodities are used. Kitaj on the one hand and the Paris Group for Visual Research on the other are clearly preoccupied with the destiny of the fine arts in a society that is exploitative rather than creative.

BOOKS

(Continued from page 13)

GRAPHIC ARTS OF THE 18TH CENTURY by Jean Adhemar (McGraw-Hill, \$6.95)

The 18th Century, the author states, was a period of experimentation in the art of illustration. The severities of the earlier period removed, the 18th Century abounded in political diatribe and vitriol and the illustrated pamphlet and book came into its own. Here are the commentators on mores and manners of the courts of France, Italy and England — Tiepolo and Canaletto; Watteau and Fragonard; and Hogarth and Rowlandson. *Graphic Arts*, with its 168 plates, is as much a political commentary on the times as it is a compendium of the polemic art of the 18th Century.

THE IRRESPONSIBLE ARTS by William Snaith (Atheneum, \$5.00)

William Snaith's well-stated and cogent arguments against the vacuity of much of what passes for modern art will gain him admirers and lose him friends: "When art becomes a clan symbol for the elite, the mandarins, its historic relationship to man is altered and its future purposes become less clear." Snaith inveighs against some of the cant in art circles not for the sake of pricking bubbles of pomposity, but because the "Establishment" has hurt the cause of modern art by emphasizing triviality and eccentricity. Modernism began, the author points out, as an attack on middle-class morality and thinking; but it broke out of the bounds of logic and has aptheosized the Different, the Bizarre, and, ultimately, the Inane.

ART TECHNIQUES FOR CHILDREN by Gottfried Tritten (Reinhold, \$7.50)

This interesting (and, of course, amusing) study of the art of children is also an excellent guide to the understanding of what impels a child to express himself the way he does. Children, states the author, have a sure sense of form, an emotional sensitivity to color. Their imaginations are less hampered than adult's, more expressive, more naturalistic, and this lack of inhibition results in some wonderful flights. The various techniques discussed are drawing, painting, cutting, collage, sculpture and other forms of aesthetic expression at the child's own level. Illustrated with explanations and parallel suggestions.

CIVIL LIBERTIES & THE ARTS by William Wasserstrom (Syracuse University Press, \$8.50)

Dorothy Norman founded a little magazine, but little only in the sense of a restricted readership, certainly not in spirit or scope, in order to reply to the troubled questions about war and peace and individual rights. Started in 1938 *Twice a Year* faced the problem of the artist in a time of approaching war. Hitler was on the march, and in America the Bund was poisoning the air. Fritz Kuhn, Bund leader, was a guest at a testimonial dinner to Congressman Martin Dies (Texas, Dem.) when the House Un-American Activities Committee was examining disloyalty among the citizenry. The question which Dorothy Norman raised was how much civil liberty? and for whom? and under what circumstances if any should such liberty be curtailed? The contributors to this astonishing publication — astonishing because of its breadth and because of its forthrightness — included such names as Ernest Toller, William Carlos Williams, Lewis Mumford, Alfred

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Kazin, Gunnar Myrdal and many others. For ten years this amazing publication attempted to hold up the torch of creative freedom in a world troubled by war, both hot and cold, concerned chiefly with the freedom of the individual in society at a time when freedom was almost a luxury. William Wasserstrom, editor of previously published *Dial* and *The Time of the Dial* has evoked an era past, foolish, heroic, mistaken on occasion, but never afraid to face issues, and again his work in bringing back this slice of the past is akin to a public service.

PAINTING & UNDERSTANDING ABSTRACT ART by Leonard Brooks (Reinhold, \$15.00)

The dictators used to equate abstract art with decadence and the fallacies of democracy, although the relationship would escape all but a psychiatrist. At any rate, this theory was given large credence, and there are still those who, failing to understand Latin, calculus, or the laws of thermodynamics find all three expressions of man's weakness and evil. In an introductory quotation by Francis Henry Taylor, former Director of the Metropolitan Museum of Art, the point is made that it is as invalid to dismiss Abstract Art because of incomprehension (not incomprehensibility) as it would be to dismiss abstract and even abstruse ideas. This is the basis of this excellent discourse on modern art, a book which traces its trends, and direction.

FRED SHANE: DRAWINGS Introductory Essay by Thomas Hart Benton (U. of Missouri Press, \$10.00)

Fred Shane is the George Grosz of America. Combine those exceptional talents of Art Young and Daumier with the incisive bite of Herblock — and the amalgam is Fred Shane. This outstanding collection of his work, a mere handful actually of the hundreds and thousands of his drawings, has been carefully selected to show the artist at his most diverse and at his best. Shane is a superb craftsman, if nothing else. His intuitive sense of what is "right" comes through in his sketches. This publication is a great tribute to one of our outstanding artists, and a worthy addition to the art shelf of every art lover of Americana.

—ROBERT JOSEPH

LETTER TO THE EDITOR

Sir:

In the January issue of *ARTS AND ARCHITECTURE*, I was highly offended by a casually used term obviously used in reference to a challenging and growing profession — Landscape Architecture.

In your interesting review of *CITIES*, a book by Lawrence Halprin, Mr. Halprin was categorized as "an urban planner, an architect, a landscaper, a social scientist, and a humanist."

Mr. Halprin is a leader, a dynamic and progressive figure in the profession of Landscape Architecture. To refer to him as a "landscaper" is a gross injustice, both to him and the entire profession. The implication, if one takes time to analyze it, is disastrous to the profession. Landscape Architecture is a design profession with an aesthetic intent; it is an art and a science. A Landscape Architect concerns himself with the planning of our outdoor environment for the betterment of all individuals. His work may be as grand as the planning of an entire city or as small as the development of a residential backyard patio. His materials are as varied and as advanced as modern technology. Plant materials, to be sure, are one of his "tools" used in attaining complete design concept, but they are by no means his livelihood.

The profession of Landscape Architecture in this country is over a century old, yet its true and valid acceptance by others is yet to be realized. It behooves all concerned who are in positions of influence to aggressively pursue and make honest evaluations of our total capacities, and recognize us for what we do. If we are to progress, a basic consideration are the titles given to us, of which only one applies — Landscape Architect.

Thank you for your consideration.

Stephen B. Eastman,
Landscape Architect
Baltimore, Md.

NEW DESIGNS



French designed, removable, revolving chairs; seats of wood, arms of aluminum, backrests of plastic, which can be installed in various locations. Awarded a Gold Medal at Milan Triennale. Roger Legrand, France.



Venetian lanterns (left) composed of a framework in natural color iron and wire with fragments of assorted pieces of colored glass blown into the framework; size 17" x 10" x 8"; (right) natural color iron pipe design cut out with acetylene torch, glass blown into shell forming interesting patterns can be had in clear or multi-colors; size 24" x 11½". Henry Zane Imports, Los Angeles. Circle No. 319 on the Reader Service Card.



Action office conference desk by Herman Miller, Inc. includes matching file bin with tack board flipper; height 28½", width 84", depth 42½". Desk, incorrectly credited in February issue to another manufacturer, comes in bright polished aluminum base, oil walnut or oil brown ash top with soft vinyl edge. Drawers available. Herman Miller, Inc., Zeeland, Michigan. Circle No. 316 on the Reader Service Card.

ANTIQUE



Carved Corinthian Columns from the Church of Ciudad Real, Spain.

Attributed to Montanes (1572-1649), the four columns are 12 feet high, 24 inches in diameter and covered in polychrome and gold leaf. \$3,700.00 each.

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(1) A complete package of information literature on new Armstrong Ventilating Acoustical Ceiling systems has been compiled for architects and engineers by the Building products Division of the Armstrong Cork Company. Fully illustrated brochure gives complete details on basic operation of the new ceiling system, shows how it reduces air conditioning costs through elimination of air diffusers and a large amount of supply duct work. Case histories of actual installations available at no extra cost. Armstrong Cork Company.

(2) An attractive 32-page booklet describing a number of steel-framed homes is available from Bethlehem Steel Company. Write for Booklet 1802. Color and black and white photographs describe outstanding steel-framed houses in many areas in the United States. Floor plans, construction information, and costs are described. Examples of mountain cabins, apartments, and steep hillside site solutions are shown. Bethlehem Steel Company.

(6) Interior Design: Crossroads have all the components necessary for the elegant contemporary interior. Available are the finest designed products of contemporary styling in: furniture, carpets, draperies, upholstery, wall coverings, lights, accessories, oil paintings, china, crystal and flatware. Booklet available. Crossroads Mfg. Inc.

(7) Stained Glass Windows: 1" to 2" thick chipped colored glass embedded in cement reinforced with steel bars. A new conception of glass colored in the mass displays decomposing and refracting lights. Design from the pure abstract to figurative modern in the tradition of 12th century stained glass. Roger Darricarrere.

(9) Two new pamphlets on folded plate roofs and stressed skin panels are available from the American Plywood Association. Each brochure contains structural details, illustrations and descriptive text; valuable addition to any collection of data on components; updates previously available information; other booklets in the components series describe box beams, curved panels, trusses and pallets. Available free to architects, fabricators, and builders. American Plywood Association.

(10) Furniture: A complete line of imported upholstered furniture and related tables, warehoused in California and Virginia for immediate

delivery; handcrafted quality furniture moderately priced; ideally suited for residential or commercial use. Dux Inc.

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

(12) A new, 12-page executive furniture catalog has just been completed by Hiebert, Inc., manufacturers of a complete line of executive office furniture. New catalog contains detailed illustrations of the line, including executive desks, secretarial desks, side storage units, corner tables, conference table, executive chairs, and side chairs. The center spread features a full-color photograph showing the various Hiebert furniture pieces. Copies of the catalog may be obtained free of charge. Hiebert, Inc.

(13) The 36-page Hotpoint Profit Builders catalog for architects and builders contains specifics on Hotpoint's full line of products, including built-in ovens, dishwashers, disposers, heating devices, refrigerators, ranges, air conditioners, laundry equipment. Also included are diagrams of twelve model Hotpoint kitchens with complete specifications for each. Hotpoint.

•(14) Tile — Full-color brochure gives specifications and descriptive information about economy line of tile which offers all the advantages of genuine ceramic tile at a low price. Striking installations are illustrated to show why Trend Tile is ideal for budget-priced homes and multiple dwelling units. A complete color palette shows the 11 plain colors and 9 Crystal Glaze colors available. Also shown are the three versatile Trend Tile decoratives which enable architects, builders, tile contractors and designers to achieve a custom effect at a nominal price. Interpace.

(15) Catalogs and brochures available on Multalum and X-Alum series of contemporary furniture designed by George Kasparian. Experienced contract dept. working with leading architectural and interior design firms. Kasparians, Inc.

•(16) Furniture — Three recently introduced Mies van der Rohe pieces plus complete line of furniture designed by Florence Knoll, Harry Bertola, Eero Saarinen, Richard Shultz, Mies van der Rohe and Lew Butler and a wide range of upholstery and drapery fabrics of infinite variety with color, weave and design utilizing both natural and man-made materials. available to the architect is the Knoll planning unit to function as a design consultant. Knoll Associates, Inc.

(18) Lighting: A completely new 12-page, 3-color brochure of popular items in their line of recessed and wall mounted residential lighting fixtures is now available from Marco. The literature

includes typical installation photos as well as complete specifications on all items Marvin Electric Manufacturing Company.

•(20) Clocks — Complete information on the entire Howard Miller Clock Company timepiece line in illustrated brochures. Contemporary wall and table clocks by George Nelson; contemporary, "three-dimensional" electric wall clocks, including remote control outdoor clocks and the new battery operated built-ins; Meridian Clocks in ceramic, wood, metal and other unusual finishes for decorative accents; Barwick Clocks in traditional designs, battery or A.C. movements. Howard Miller Clock Company.

•(21) Lighting — Four-page illustrated brochure shows all 21 styles in four models — ceiling, wall, table and floor — designed by George Nelson for Howard Miller Clock Company. Included are the large fluorescent wall or ceiling units designed for contract installation. Dimensions and prices given. Howard Miller Clock Company.

•(22) Selections from the diversified decorative accessory collections for the Howard Miller Clock Company. Brochure includes shelves, mirrors, spice cabinets, wall vanities and desks, planters, room dividers, Ribbonwal. Howard Miller Clock Company.

(24) "The pleasure of planning your home with Mosaic Tile," a new 24-page brochure, depicts unusual uses of tile and presents a variety of home planning ideas; large selection of handsome color

(Continued on next page)

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photographs. Tiled steps, hallways, tiled fireplaces, kitchens, bathrooms, patios and swimming pools show the versatility and wide color choices as well as low maintenance costs and lifetime advantages of ceramic tile. Mosaic Tile Company.

(25) Completely new full-color 28-page catalog of Mosaic ceramic tile manufactured in California and distributed throughout the area west of the Rockies. First presentation booklet form of tile in the Harmonitone color families; includes decorated glazed wall tile, new Staccato palette in one inch square tile, and Byzantile. Catalog available upon request. The Mosaic Tile Company.

•(34) Appliances — New illustrated, full-color brochures with complete specifications on built-ins by Thermador: ovens, cook tops, accessories and dishwasher. Also electric heating for home, office, factory, apartment, hotels and schools, and the Thermador glass-lined electric water heaters. Thermador.

(40) Wood/Line, Globe's newest fixture series, accents the texture and patina of real walnut with the cool (all over glow) diffusion of milk white plastic to provide the handcrafted look in lighting. Globe Illumination Company.

(42) Scandiline Furniture offers for \$1.00 a 36-page catalog "Scandinavian at its Best". Many new items in the residential line are pictured as are those in the new office furniture division. The design-awarded, hand-printed Swedish lampshades for ceiling and wall hanging lamps are detailed. Price lists available. Scandiline Furniture, Inc.

(43) Scandiline Pega Wall System is the ultimate answer for any storage or service requirements. Unlimited combinations can be designed. The system is available either wall hung or free standing with 12 alternate leg heights. This patented construction, designed by Ib Juul Christiansen, is imported from Norway by Scandiline Furniture, Inc.

(44) Executive Desks: New collection by Brown-Saltman features designs by John Follis and Elisha Dubin. Manufactured in Southern California; complete local inventory available for immediate delivery. Brochure shows executive desks, conference desks, executive

storage units, etc. Brown-Saltman Company.

(46) Orlando Galleria has continuous exhibits of fine paintings and sculpture. Free schedule of exhibitions available. Orlando Galleria, 17037 Ventura Boulevard, Encino, California.

(47) Ogden water purifier converts tap water to pure spring-like drinking water by a scientifically developed, disposable cartridge. The small, compact, stainless steel unit is easily installed either above or below the sink. Portable and industrial units available. Ogden Filter Company, Inc.

(48) Complete information concerning the new automatic door closer for screen, glass and wardrobe doors by Kelly Klozer. \$18.95 installed, can be used on your present sliding screen door and features mechanism adjustable to door weight and an automatic safety stop when interrupted. The Kelly Klozer Company.

(49) Lighting brochure offered by Consolidated Electrical Distributors (formerly Incandescent Supply Company / Phillips & Edwards Corp.) describes its electrical services, supplies and apparatus for commercial, industrial, residential, outdoor and decorative lighting, electrical appliances and housewares. Consolidated Electrical Distributors.

(51) Brochure-catalog containing complete price information and illustrations of the new modular carved wood panels by Panelcarve. "Handcrafted by machine" the panels may be assembled into a variety of design combinations for doors, table tops, room dividers, paneled walls, desk components, planters, cabinets, etc. Panelcarve.

(52) Douglas Fir Roof Decking, an architect's and builder's guide to its use and availability, is the subject of a new 4-page brochure by Hemphill-O'Neill Lumber Company. The manufacturer produces quality decking in random and specified lengths to 24 feet, making possible rich, dramatic ceilings at low cost and with greater unbroken spans than commonly available. The brochure offers complete installation and manufacturing specifications. Hemphill-O'Neill Lumber Co., Inc.

(53) Four-page color brochure shows Facebrick residential, office and institutional installations. Con-

tains Facebrick color-selection chart and Name - Texture - Size - Color specification information. Cost guide table compares ultimate wall costs of Facebrick with other materials. Free from Pacific Clay Products, Los Angeles Brick Division.

(55) A complete acoustical consultation service for architects is now available from the Broadcast & Communications Products Division of Radio Corporation of America. Service includes analysis, tests and recommendations on acoustics for theaters, studios, auditoriums, stadiums, classrooms, or any other public or private building where mechanical sound devices are employed. Radio Corporation of America.

(58) Fredrick Ramond, Inc. has just printed its newest full color brochure introducing a startling breakthrough in lighting fixtures. Hand-blown, geometrically designed globes. This brochure spectacularly illustrates the indoor/outdoor application of this revolutionary lighting development. Fredrick Raymond, Inc.

(59) Awandi - Imports announces the availability of their new catalog. This new line of furniture, imported from Germany, is illustrated to show the Rio Palisander (Rosewood) grain and the modern design which is equally in style in Commercial or Residential surroundings. The catalog includes available fabric samples and a price list. Awandi-Imports.

(60) New Swiss drafting board which at the touch of a knob moves the board to any desired height or angle. A boon to architects, draftsmen, artists, engineers, blueprinters. No need to move from a normal sitting position, stand on a chair, draw upside down at the top of the board. No more backaches, stiff necks, drafting table fatigue. Vertical shaft moves freely on ball bearings through 360° and may be locked in any position. Two 115v. 400w. motors supply power. Less than five seconds required for changes in height from 16 inches to 31½ inches or adjustment from horizontal to vertical. Free brochure available. Reed Products Company.

•(61) Scalmandré Fabrics. New Architects' Collection of contemporary textured upholsteries—natural fibres, man-made fibres and blends. Tremendous color ranges

and interesting weaves. Also special colors and designs to your specifications. Excellent group of casements for contract and institutional interiors. Write for swatched brochure. Scalmandré.

•(62) Scalmandré Wallcoverings. Large collection of wallcoverings—includes grasses, reeds, corks, linens, foils and novelty textures. Writer for swatched brochure. Scalmandré.

•(63) Architectural Plastics International's new "Manual for Plastics in Construction" is a comprehensive and informative catalog for architects, engineers, designers, contractors. Published specifically for the construction industry, it embodies a directory, buying guide and a new-product digest for all phases of construction. Various brochures furnished. Architectural Plastics International.

•(64) "The Mathematics of Space in Churches," a new four-color brochure by New Castle Products, Inc., helps church planners and administrators get maximum use of available space. Illustrating how various types of folding doors and partitions, serving as sound and/or sight barriers, provide versatility in the use of church building facilities, this brochure uses the problem - and - solution technique and pictures actual installations in sanctuary, classrooms, social halls and multi-purpose areas. Modern-fold Folding Doors, New Castle Products, Inc.

•(66) Veneers — An eight-page publication discussing new, lightweight, pre-surfaced wall panels and column covers is now available from Mosaic Building Products, Inc. Provides information on Mosaic's panel wall, veneering panels, curtain wall panels, column covers and fire-rated panel walls. Architectural detail drawings as well as types of available surface materials are included. Numerous photographs illustrate handling and installation ease. A short-form guide specifications outline is provided. Mosaic Bldg. Products, Inc.

•(67) Tile — Full-color brochure, gives complete information about Franciscan Hermosa Tile, a Gladding, McBean building product, which features a host of interior and exterior installation photos which illustrate the wide range of colors, shapes and designs available in Franciscan Hermosa Tile. Interpace.

•(68) A brochure describing Flushplate—a breakthrough in the design of switch and outlet plates is now available. Illustrated to show completed installations as well as installation details; for architects, designers, decorators and builders. Flushplate Manufacturing Co.

•(69) Fountains — A 70-page catalog - brochure is available from Roman Fountains/Jabon Studios. More than one hundred fountain ideas are illustrated. Physical characteristics, applications, plans and complete specifications are shown. Fountain planning and engineering made graphically clear. Roman Fountains, Inc.

(70) Executive desk accessories and home furnishings in an original design series of black matte cast iron. Fine castings made exclusively in this country. Ashtrays, cigarette boxes, lighters, candleabrium, other decorative pieces. Catalogue available. Les Hunter Designs.



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