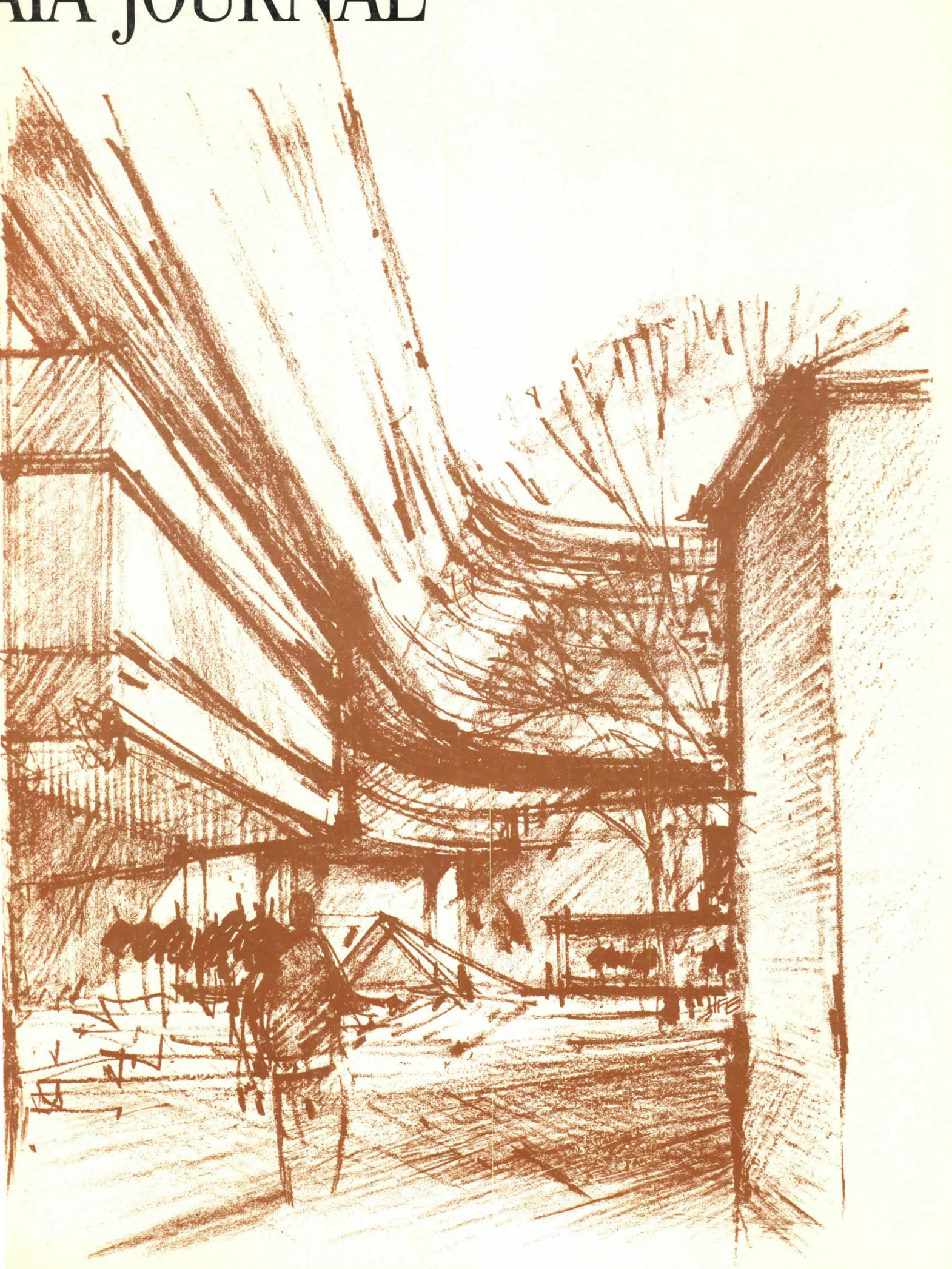


AIA JOURNAL

JUNE 1970





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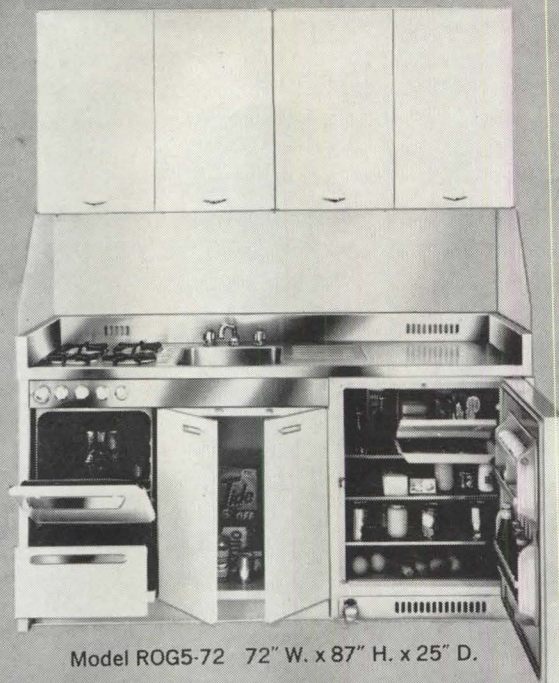
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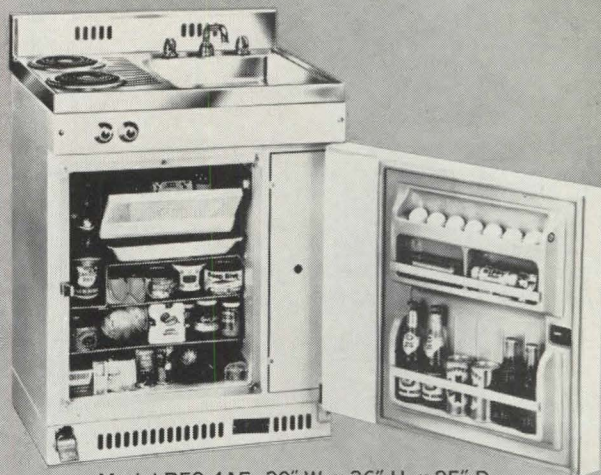
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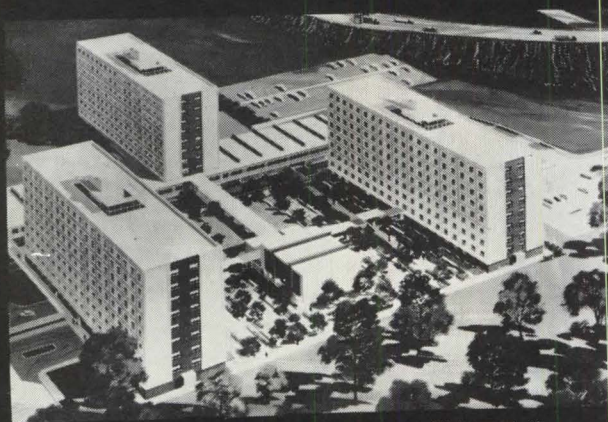


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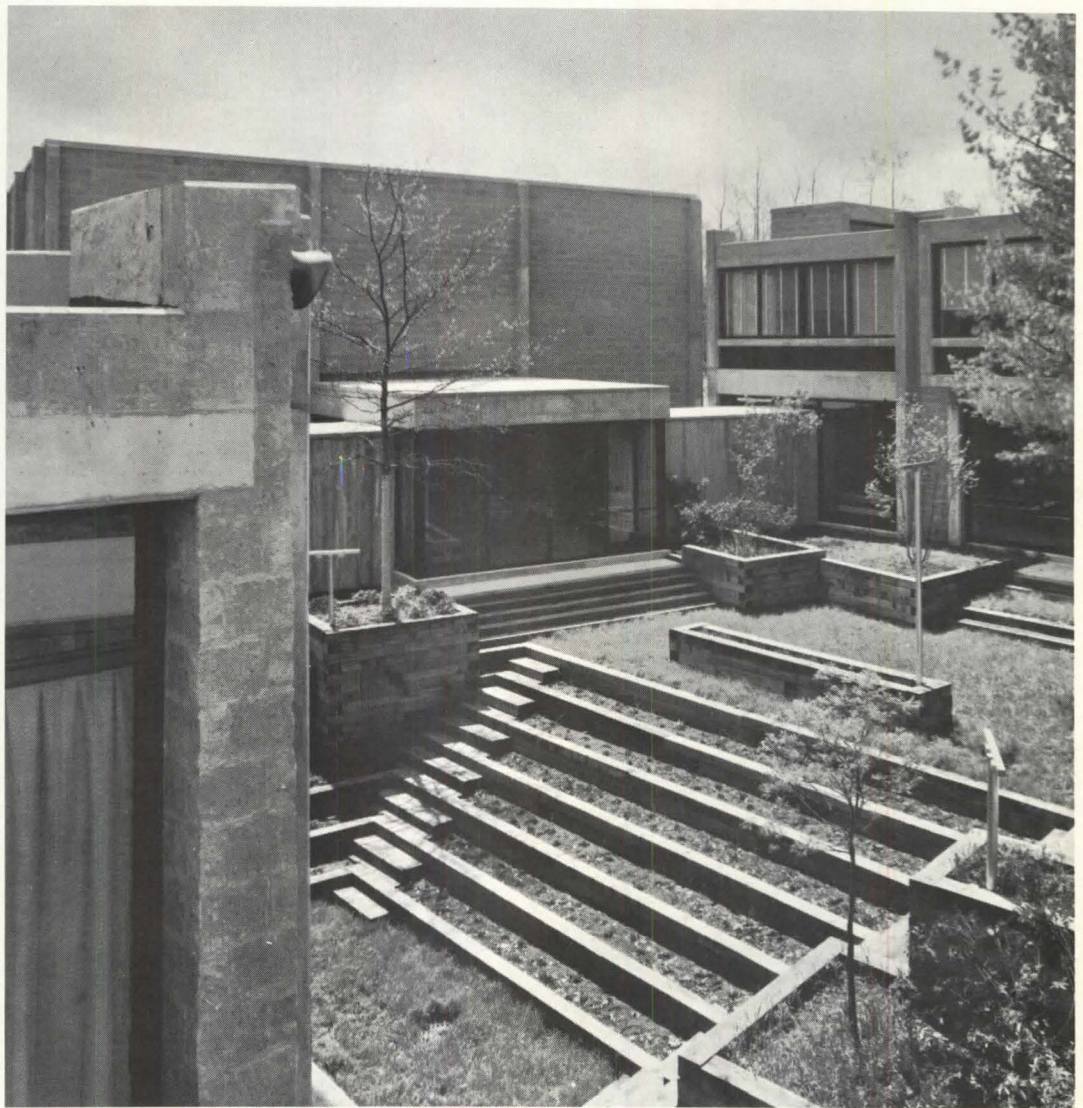
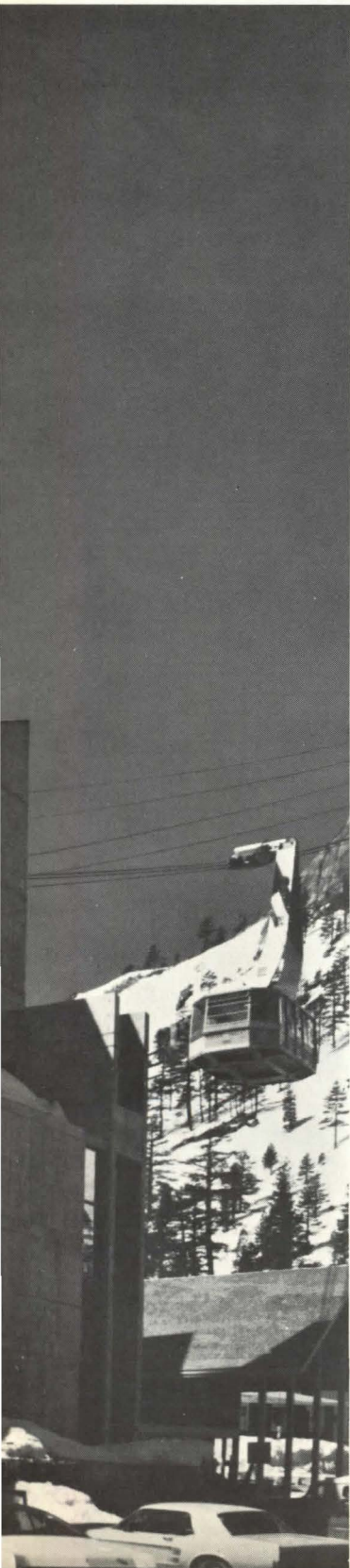
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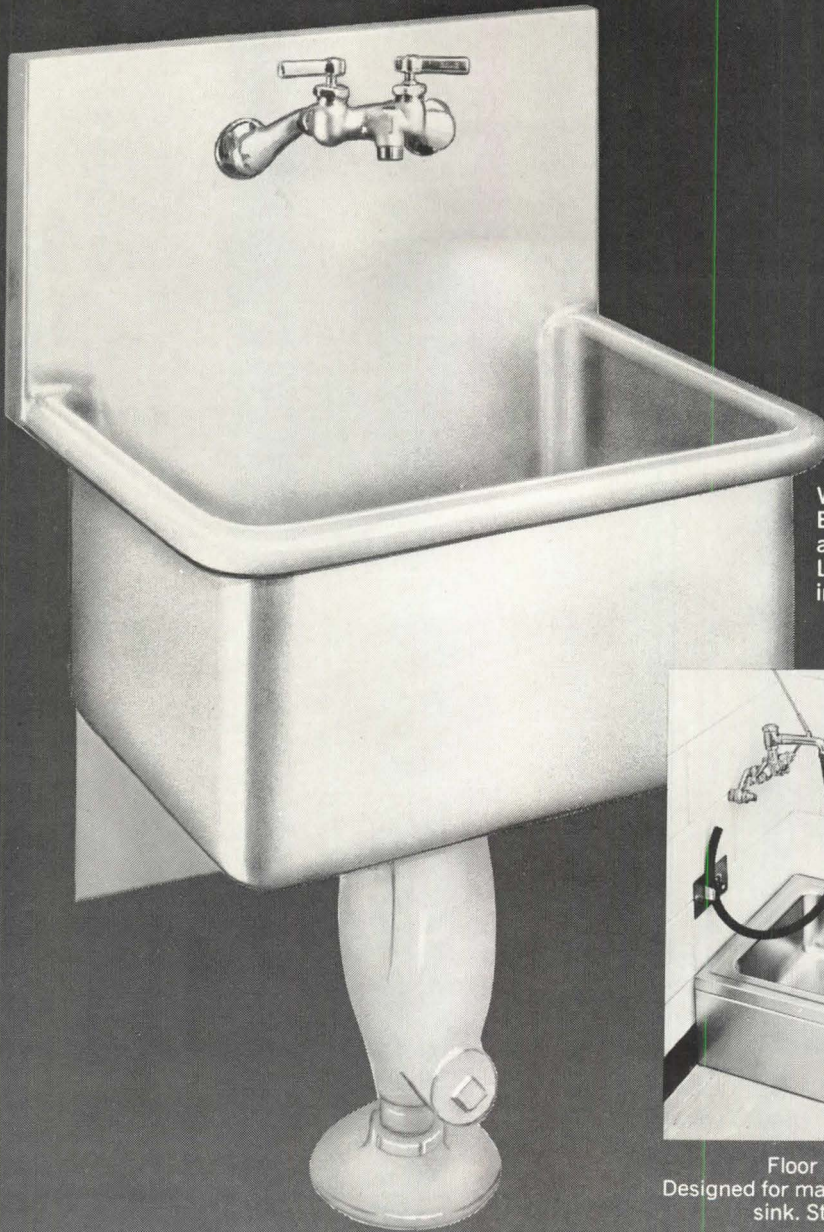
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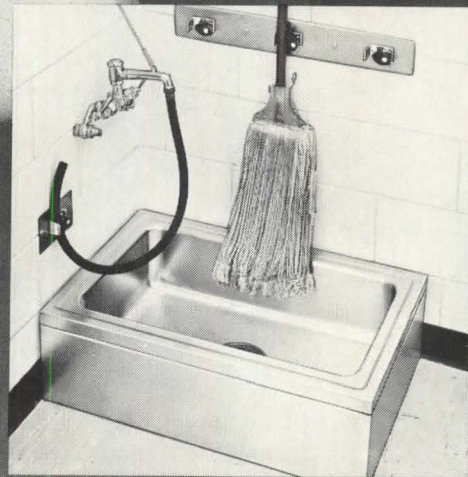
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AIA JOURNAL

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COVER

AIA's new Headquarters Building as sketched by Howard F. Elkus, AIA, of the Architects Collaborative (see p. 15 for a statement by Norman C. Fletcher, FAIA).

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VOL. 53, NO. 6

comment and opinion

TRIBUTE TO AN ARCHITECTURAL GREAT: Perhaps the best assessment of Richard J. Neutra was made by A. Quincy Jones, FAIA, when he said these few words: "His influence on architects and architecture has continued through the years. He made a great contribution by his continuous concern for order — but order that is without monotony. His discipline and his quiet statements are rich, indeed, and stand apart from the flamboyance of our times."

Another southern California colleague, Edward A. Killingsworth, FAIA, put it in a more definitive way: "Architecture as we know it today would not exist without many of the influences of Richard Neutra Before him, glass was almost an unacceptable material. Somehow, space definition was a matter of solid walls. Neutra demanded that space be more than this. Because of his tenacity, his point of view has become a way of life for all."

Yet despite such glowing tributes as these from his legion of admirers, Mr. Neutra remained, in my opinion, one of the most underrated practitioners of our day. True, as an architect, city planner and humanist, he received more than a hundred awards, including honorary degrees, memberships in professional organizations and recognition by governments, universities and societies on every continent — but The American Institute of Architects, of which he was a Fellow, never saw fit to present him with the Gold Medal.

When Mr. Neutra died in April following a heart attack (his third), he was on the final days of a lecture trip with his wife and constant companion, Dione. She reports that in July, he had wanted to take a trip to Russia; in September, before a conference in Isfahan, Iran, he had hoped to go to Japan, visiting upon his return the large residence now underway in Lahore, a prospective client in Switzerland and the formal founding of the Neutra Institute in Germany. He was, then, a man of boundless energy, and possibly it was this very vitality that led him to engage in what some seemed to feel were overzealous public relations activities.

His *Survival Through Design*, on which he worked for 20 years preceding its 1954 publication by Oxford, developing one essay at a time, is considered a milestone in the direction now being taken to formalize the entire subject of a humanist approach to the planning of the environment and the managing of ecology. In this volume, he constructively lists and proposes in simple form suitable lines of research as a basis for responsible design. He calls for a warmer, more humanly pulsing effort in order to design for life, and thus preserve it.

His projects are worldwide, ranging from desert mansions to low-cost open-air schools to hospitals to workers' housing. But they are most at home in his adopted California where its mild climate seemed to offer him the opportunity to create enclosures for man closest to the nature he so respected. Only history will properly evaluate Richard Neutra, whose head rises high among the significant architectural figures of the 20th century.

ROBERT E. KOEHLER

NEXT MONTH

Last year marked the 50th anniversary of the formal founding of the Bauhaus, the embodying of an idea that took root in Weimar, Germany, through the initiative of the late Walter Gropius. Ever since, the Bauhaus and its successors have exerted an enormous influence, not only on art and architecture but on our environmental style and life quality as a whole. And yet for all this, the school has never been thoroughly studied in all its manifestations and successive phases. That gap has been partially closed with the publication of the monumental book *Bauhaus*, a work which has inspired a Berlin-trained architect living on the West Coast to prepare a scholarly leadoff presentation on the movement as an educational concept.

Also in July: an essay by a preservationist on new uses of old structures we have inherited from the past; a portfolio of the best in Canadian housing as expressed in a national awards program; a preview of the manual of accounting procedures prepared by the Institute, a study of the 1970 winner of the R. S. Reynolds Memorial Award; a case for the place of abstracts in the exploding information picture; an easy-going look at how one architectural firm communicates through its company newspaper; and a follow-up report on the work of the AIA Committee on Professional Consultants.

ASIDES

In preparation for moving into AIA's new headquarters, thought has been given to the library which for so long has served the membership with a book loan program and with reference service. The library is to be commended as well for its significant role in furthering knowledge of architecture through its wide assistance to scholars and the general public.

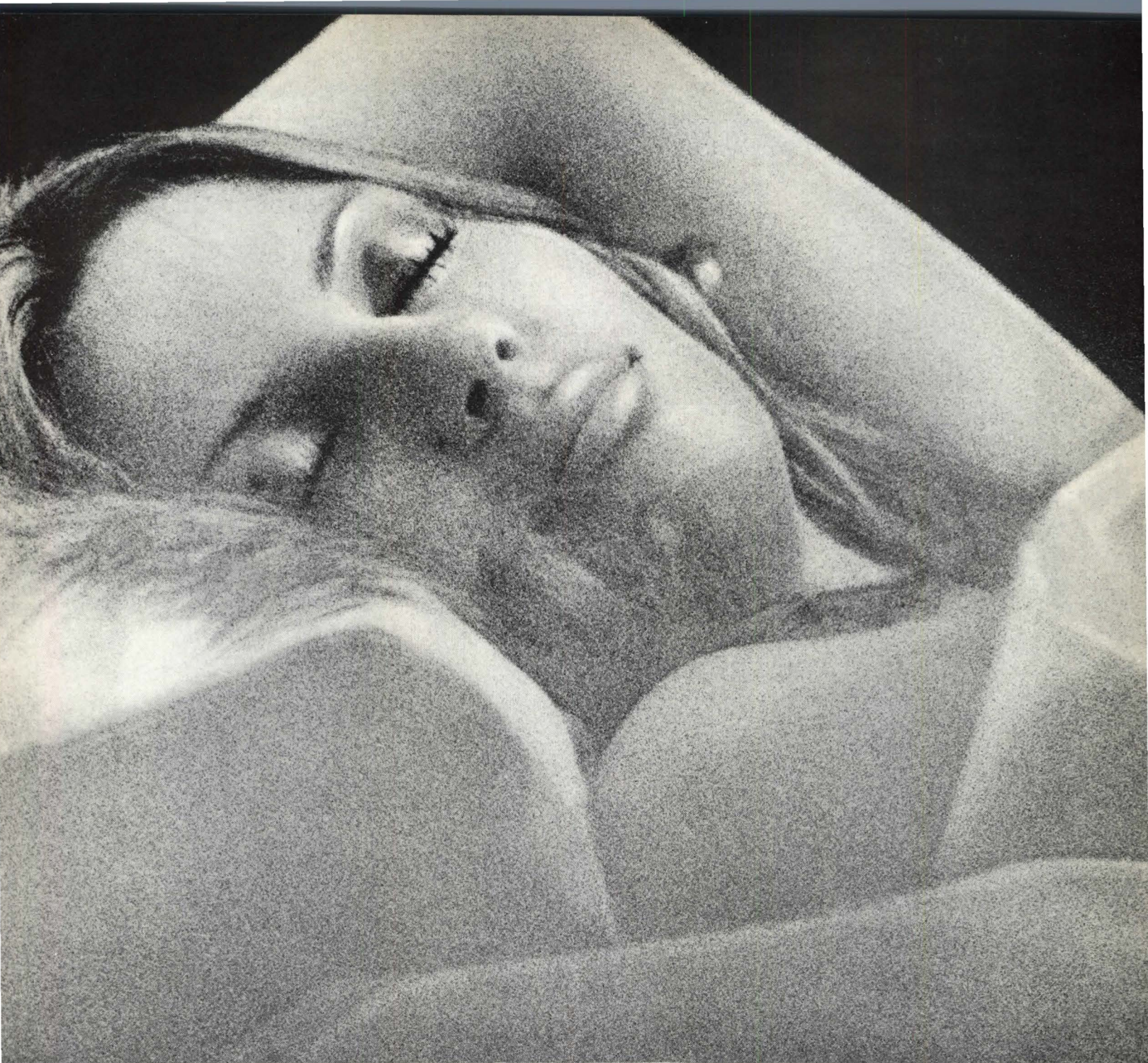
Only a basic core collection will be available in the Institute's temporary headquarters; the bulk of the library will be in storage. There will be no loans to members and only an extremely limited reference service as the collection is weeded and prepared for storage. It is regrettable, therefore, but one of the necessities of economics, that the Board of Directors has authorized the cessation of most of the external services of the library during the period in which plans are completed for placing the collection in storage and the time the Institute's staff occupies temporary headquarters.

Meanwhile, George E. Pettengill, Hon. AIA, and the Institute's librarian for 19 years, anticipates an information program in the new Headquarters Building which will afford the membership even better service than it has enjoyed in the past. The AIA JOURNAL, one of the most consistent users, expresses its gratitude to the Institute's library.

Meanwhile, although the JOURNAL must devote its primary energies to publishing a magazine and cannot assume the duties of a reference service, it will endeavor to help readers with their inquiries through referral to other sources of data. □

ACKNOWLEDGEMENTS

- 14—Robert D. Harvey Studio
- 15-16—Howard F. Elkus, AIA
- 20—*Washington Post*
- 36—*Cincinnati Alumnus*
- 48-51—William A. Garnett
- 55—Herbert Bruce Cross
- 63—right, Robert Brandeis
- 65—Black Star: Ted Rozumalski
- 67—Gary Melnicove
- 71—Boston Redevelopment Authority
- 73—Aerial Photos of New England
- 74—left, Phokion Karas; right, Boston Redevelopment Authority
- 75—Ben Schnall
- 76—above, George Zimberg; below, Phokion Karas
- 77—Phokion Karas
- 78—above left, Phokion Karas; above right, Hugh Stubbins; below, Stephen F. Rosenthal
- 80—Hedrich-Blessing
- 81—Thom Abel
- 82—Orlando R. Cabanban
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- 85—Jeremiah O. Bragstad
- 86—Robert Jacobson
- 87—Robert Lautman, courtesy of *House & Garden*
- 88—Balthazar Korab
- 89—Becky Young
- 90—Rondal Partridge
- 91—Ezra Stoller
- 92—above, Davis-Dunlop; below, Norman R. C. McGrath
- 93—above, Peter Dodge; below, Joshua Freiwald



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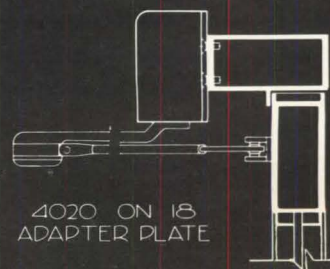
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Ralph Glendinning picked the country place because he wanted the informal, bucolic surroundings such a site afforded. And he wanted an informal, gently rustic sort of solution that would fit into the site and carefully preserve the trees. And the water, which is all around.

The architect's solution was a three-story fieldstone and glass building. The glass-walled entrance pavilion and the two major wings are

connected by glass-enclosed walkways. A stream flows under one of the walkways.

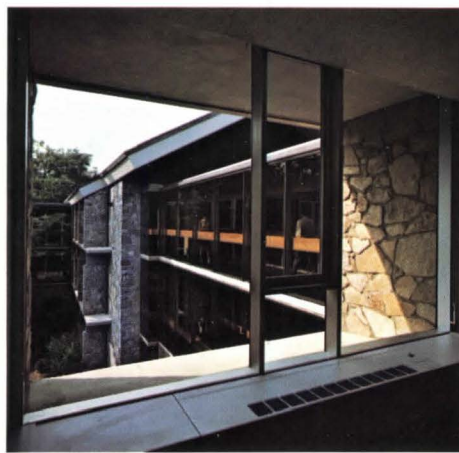
The architect used the fieldstone because he wanted a natural, rustic feeling for the building. And he used PPG SOLARBRONZE® plate glass because he wanted something that would blend harmoniously with the stone. He says, "In this case, it tied in very nicely with the rusty, brownish-hue fieldstone. And, of course, we wound up with the more practical aspects. . . ." The more practical aspect of PPG SOLARBRONZE plate glass is that it provides brightness control for visual comfort. The SOLARBRONZE glass

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Consulting Electrical and Mechanical Engineers: Fred S. Dubin Associates, New York

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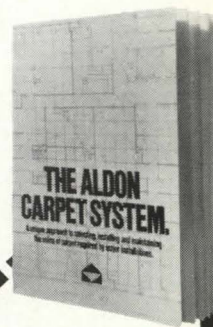
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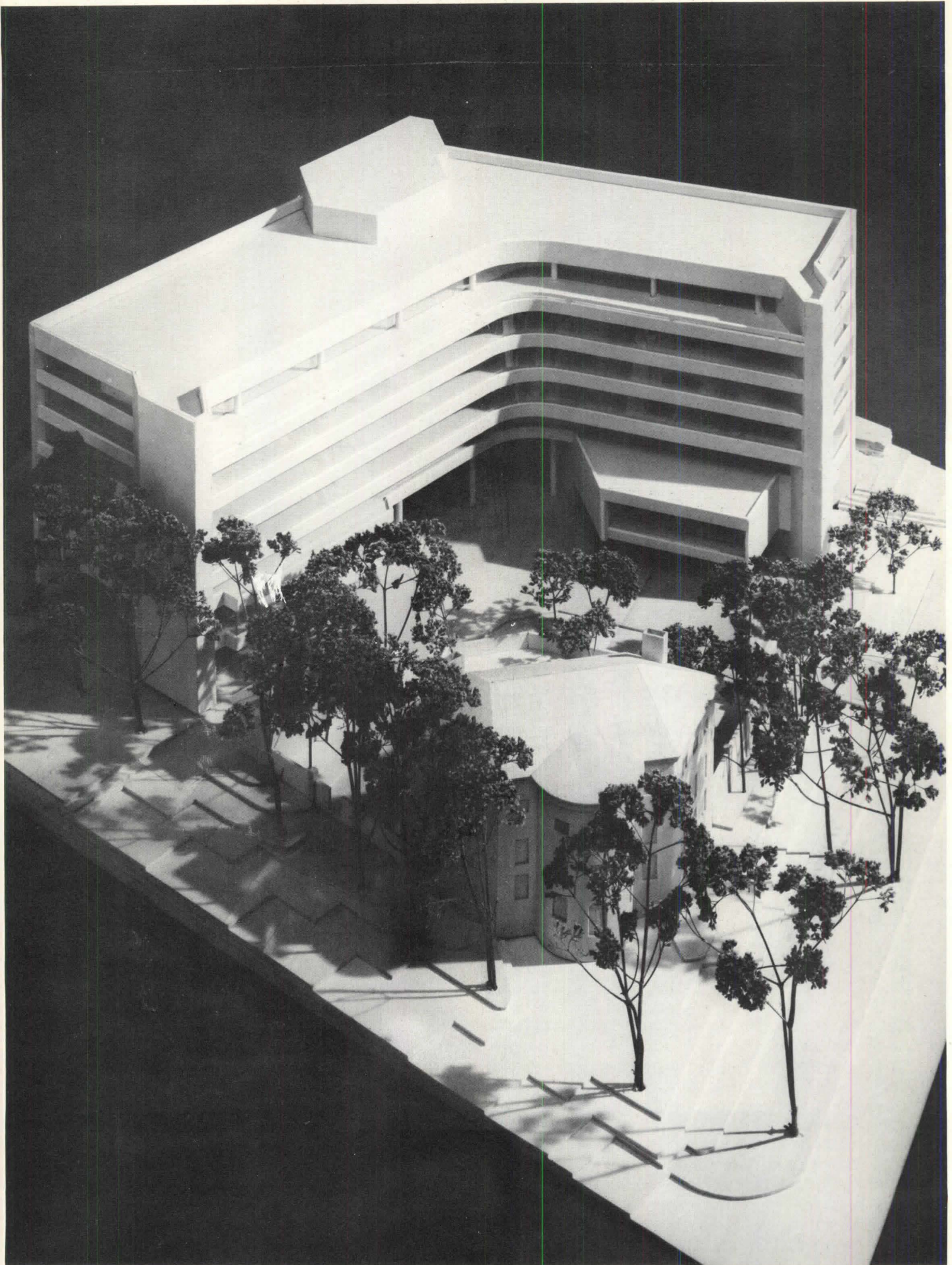
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Preview: AIA Headquarters Building

Norman C. Fletcher, FAIA, principal in charge of the project for The Architects Collaborative, describes the philosophy behind the seven-story, 130,000-foot structure with two floors — 55,600 square feet — below grade, estimated to cost \$6.8 million.

"Your interest must amount to dedication; your confidence must approach audacity; and your skin must be that of an alligator," commented William H. Scheick, FAIA, counselor to The American Institute of Architects with specific responsibility for the new building program, during our initial interview for the proposed commission.

Although warned and intimidated by this directive, we did not believe we should design a totally background building, entirely subservient to the Octagon and anonymous in character with respect to its own mission. Along with many other people working on committees for the AIA, I had become aware that the membership was not always cognizant of the work going on in Washington; they did not feel involved; and headquarters seemed to them a distant place somewhere in the East. We felt, therefore, that the building should reach out to the profession to express its real function and its image; it should erase the feeling that headquarters and staff are out of touch with the grassroots; and it should involve architects, lawmakers and distinguished visitors in the life and function of the Institute. The building should be a place to which the membership would like to return often.

Two factors formed the basis for a new approach. The first resulted from taking a fresh look at the program. There are several new aspects. The exhibit hall could be dy-

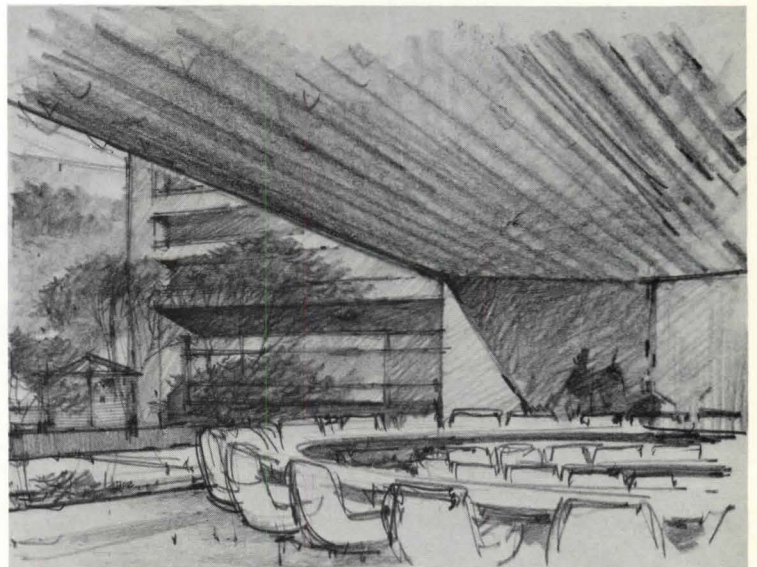
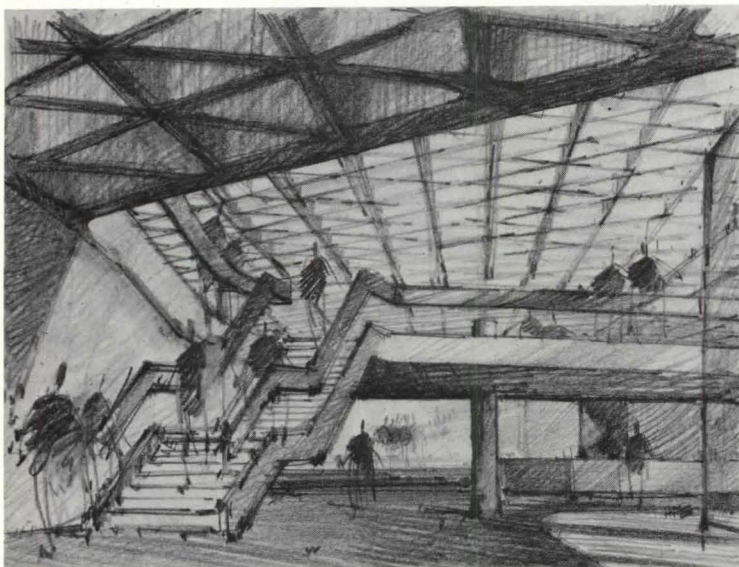
namic through changing exhibits and exploration of contemporary audiovisual techniques. Potentially, the conference center is visualized as an alive multiuse area in contrast with the conventional boat-shaped boardroom. The administrative environment could be one of open communication and involvement rather than isolated cubicles. The second was an expanded position vis-à-vis the urban design of the whole block. We recognized that the building should have a certain reserve in view of its important position in the Washington plan, its proximity to the White House and its relationship to the historic Octagon. In our interpretation the building should have serenity and dignity and not seek a self-conscious monumentality. It should be inviting and not designed to overawe its visitors and the profession. In essence, the building should create an active *environment* rather than an aggressive architectural form.

Remembering the axiom of Eliel Saarinen, "Look to the next larger thing," we could suggest possible directions for the design of the building itself. Certain existing relationships within the block and between the block and its greater environment intrigued us and formed important parts of our total consideration. For example, we were somewhat disturbed at the extremely radical character of the site, in which everything tends to focus on the Octagon with no intimation of other possible movements through the site. The block

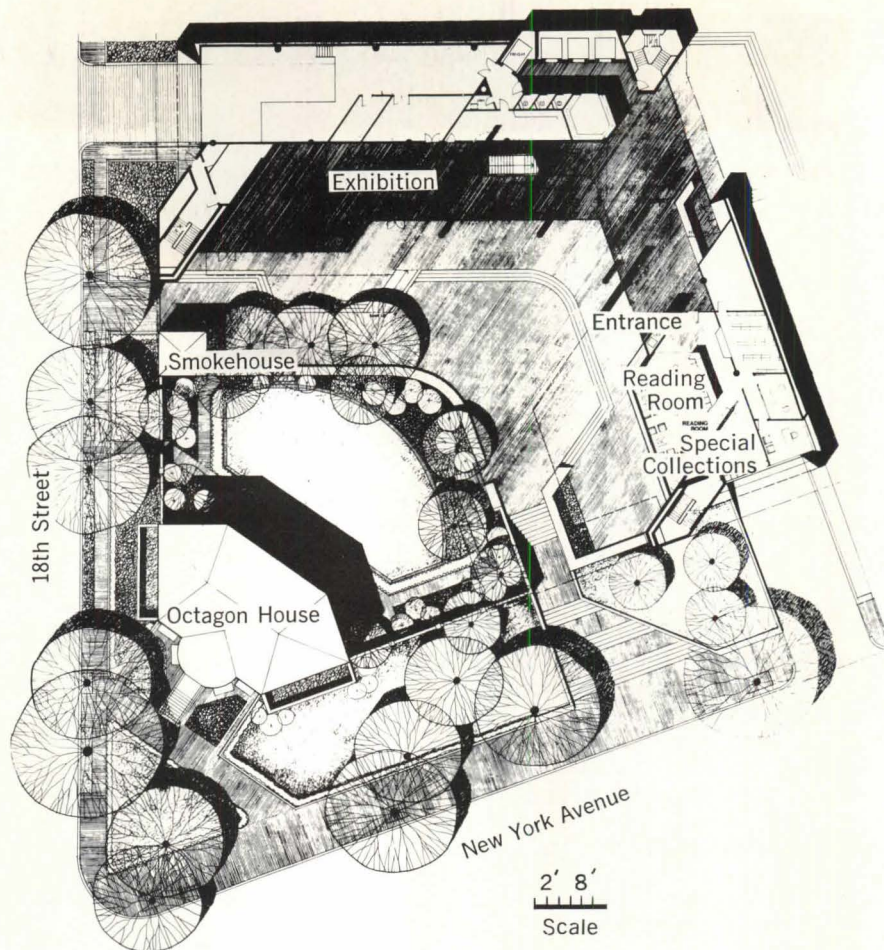
itself and the surrounding neighborhood are in a state of transition with significant changes in character soon to be brought about by extensive redevelopment. We felt compelled to take into account the impact of these impending events in our deliberations.

Among these considerations were: the possible amplification of the space between the Octagon House and the new Headquarters Building, which would enhance the view of the Octagon looking westward along New York Avenue, while maximizing the sunlight into the garden; the expected amplification of the vista toward the Octagon from the south along 18th Street created by the setback facade of the proposed United Nations building directly across New York Avenue from the Octagon; the position of the historic John Marshall House across the corner of F and 18th Streets with its influence on our thinking about that corner of the block; and the need for expansion by other occupants of the block. These dynamic forces had to be recognized and the new potential generated by them seized upon if possible.

Consequently, we felt that an overall master plan for the block (bounded by New York Avenue and 17th, 18th and F Streets) could produce some important dividends, such as better coordination of vehicular circulation and access, greater harmony and sense of unity in the facades which form the walls of the adjoining street spaces; and, most import-



Two-story lobby with stairway leading to second-floor conference area gives scale to building and puts it on intimate terms with garden.



ant, a plan subscribed to by the various owners of the block could relieve the zoning restrictions against broader occupancy in the AIA building and would allow for greater freedom in heights of new buildings on the block. In addition, we were intrigued by the possibility of creating a new kind of urban space in the center of the block which would be accessible to everyone from several entrances, giving a new inner life to the buildings which now only turn their chaotic backs toward alleys.

In order to develop a concept for the circulation and in particular for the three lower floors devoted to the AIA, two main vectors of pedestrian circulation have been utilized. First, the experience of entrance to the building would be heightened if visualized as part of the garden environment through which the visitor can approach the Octagon House on the one hand, or the main entrance under the conference center on the other. The interplay of the old and new with the possibility of emphasis on the dynamic reconciliation of conservation and modern urban design can be dramatized. The other thrust is from a proposed urban square in the middle of the block from east to west through the center of the building at the ground floor. The glass lobby acts as a focus from which vistas in both directions can be developed. Tenant circulation to the elevators can be handled through the main entrance at ground level without interrupting the activities of either the exhibit gallery or the social gallery and conference center above. Tenant and staff parking has access into the southern end of the building off New

York Avenue and service trucking is handled directly off 18th Street on other than rush-hour traffic.

The expression of the lower three floors of the building above ground is one of great openness. Its functions are devoted entirely to AIA use. Certain special elements, such as the conference center and the executive wing, provide three-dimensional variety within the glass facade. Above these lower floors, the top four floors form an L-shape sweep of office space connected with a rather stiff curve. The intent is to develop a continuous building rather than articulate the wings. The windows are continuous, and partitions can be positioned against them at virtually any point. The top floor has been recessed to minimize the impact of the elevation next to the garden and to provide a terminus for the building.

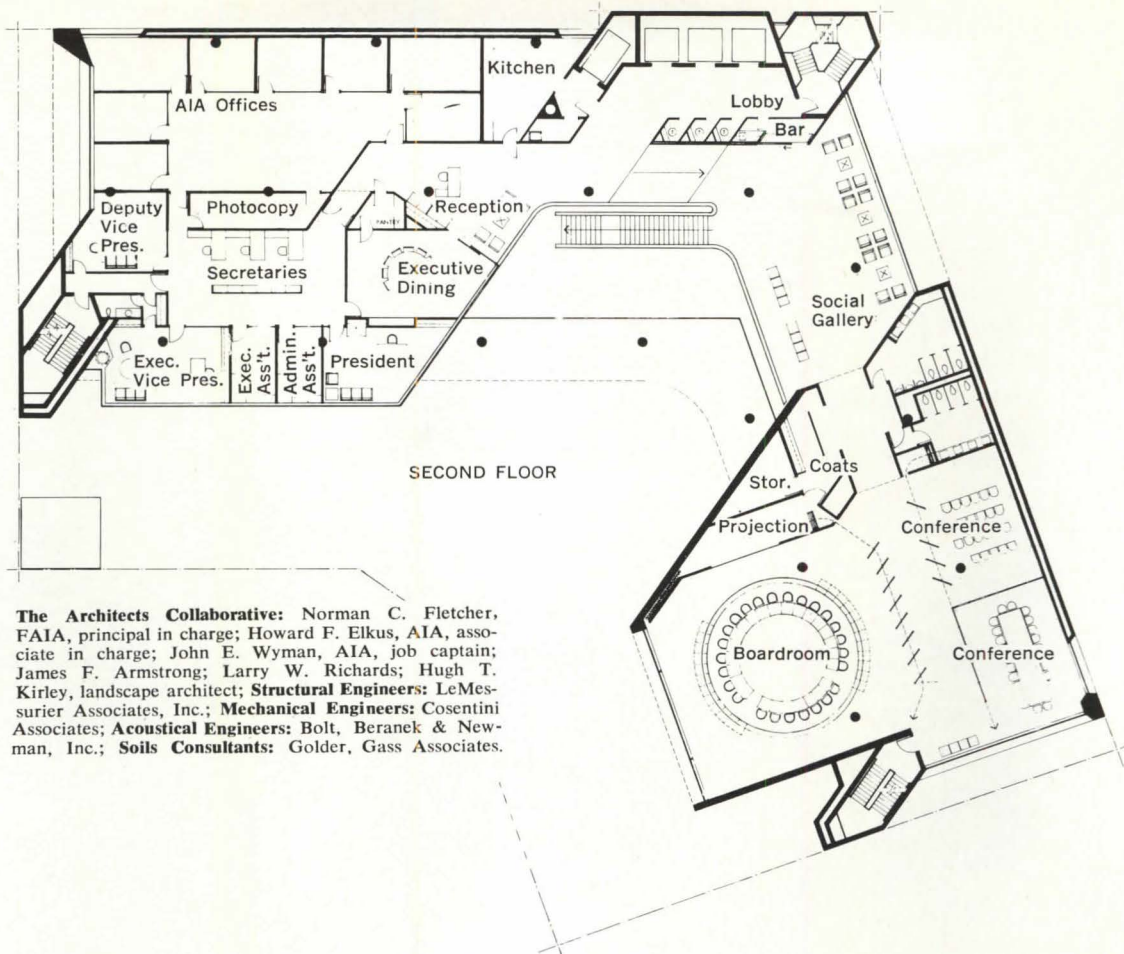
Our concentrated effort to retain an uninterrupted sweep of the wings suggested that the building be monolithic poured-in-place concrete with strong profiles and voids filled in with dark gray glass. Research is in progress to locate suitable aggregates which produce a rather dark rich tonality in the concrete in order to minimize the contrast between the continuous windows and the spandrels. Our philosophy is that this building should take the first strong step toward establishing the character for the rest of the block. Brick will be used generously in the horizontal planes of the ground floor to emphasize the interpenetration with the garden.

As we imagine how the building might appear from the garden looking upward, the

expression of the ceiling slabs was of cardinal importance. At night we would want the artificial lighting to be consistent, continuous and flowing through both wings. Admittedly we were searching for something which was compatible with our particular geometry of angles and corners. Eager to create an exciting and flexible environment within the office portion of the building, we also recognized the need to reconcile these ambitions, esthetic and functional, in a harmonious structural system with integrated electrical and mechanical elements.

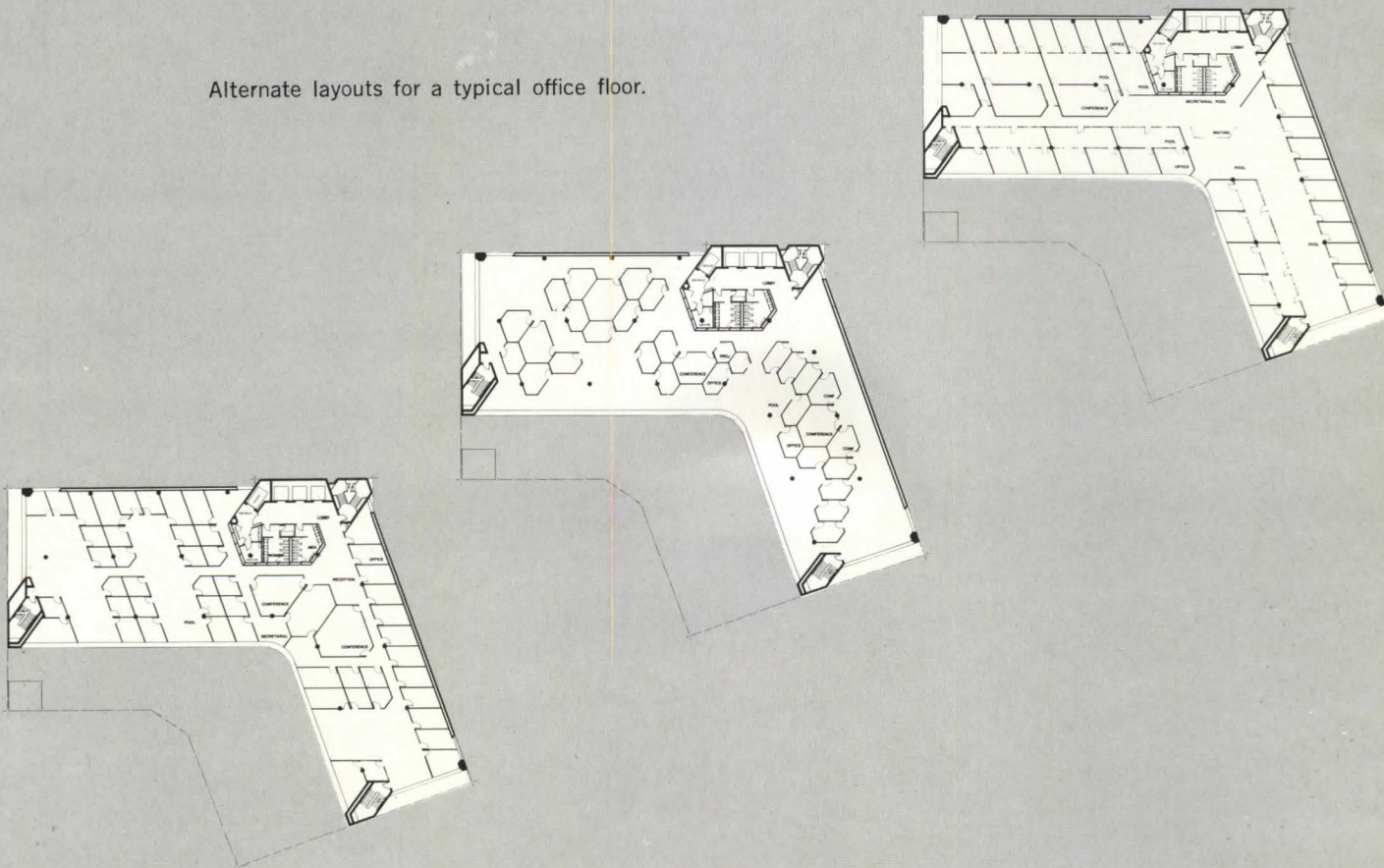
Taking into account the angles of New York Avenue and at the same time employing a column-spacing sympathetic to our parking requirements, we have studied structural grids from 20-foot to 30-foot bays and larger spans post-tensioned across the width of the building. We have recommended the use of a diagonal system on approximately 30-foot centers with a triangular module as the repetitive unit throughout. The particular triangular module which will function most efficiently for our geometry is an isosceles triangle with two 55-degree angles and a 70-degree third angle. The office planning environment resulting from the use of this grid offers a wide vocabulary of offices and conference rooms possibilities with flowing circulation and an emphasis on the open plan. It is our hope that these potentials will be more than realized as the building is developed in detail.

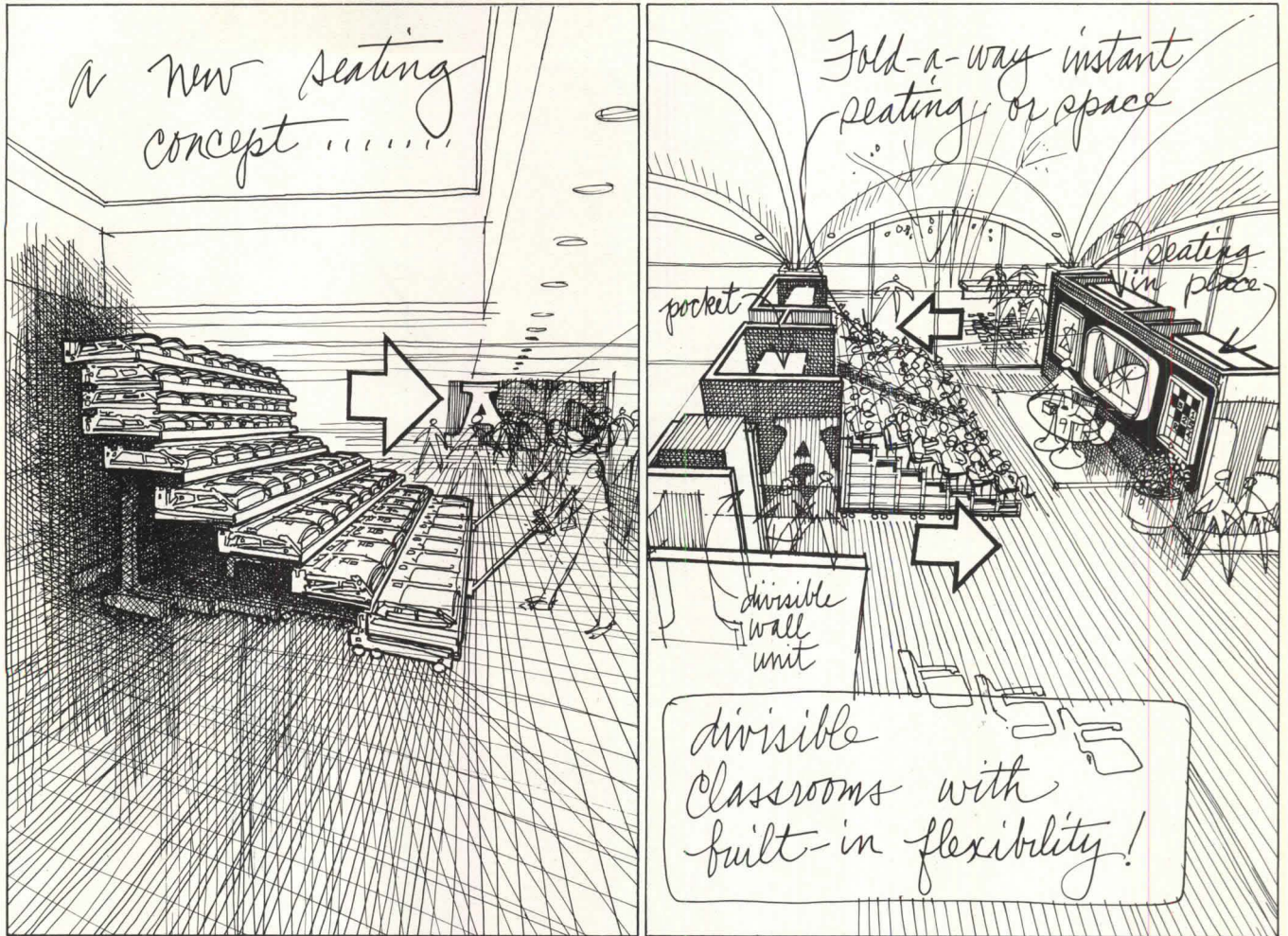
We have sought to emphasize the use of the building through action, involvement and service to the profession rather than catering to a dead monumentality. □



The Architects Collaborative: Norman C. Fletcher, FAIA, principal in charge; Howard F. Elkus, AIA, associate in charge; John E. Wyman, AIA, job captain; James F. Armstrong; Larry W. Richards; Hugh T. Kirley, landscape architect; **Structural Engineers:** LeMessurier Associates, Inc.; **Mechanical Engineers:** Cosentini Associates; **Acoustical Engineers:** Bolt, Beranek & Newman, Inc.; **Soils Consultants:** Golder, Gass Associates.

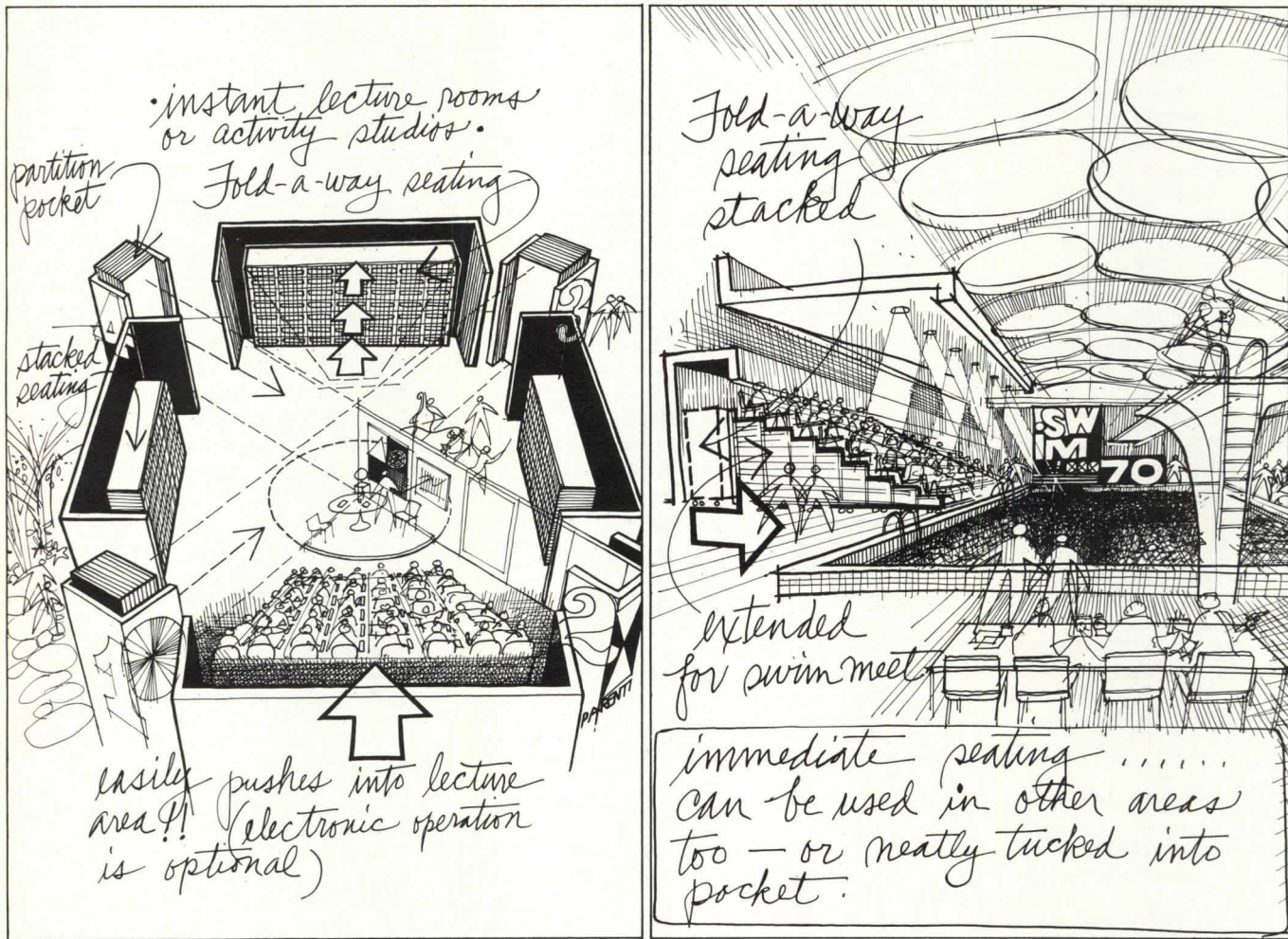
Alternate layouts for a typical office floor.





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Proposed Ethical Standards and Increased Dues Promise Discussion in Boston

Two major issues promise to spark extensive debate at The American Institute of Architects' 1970 convention to be held in Boston, June 21-25: the proposed AIA Standards of Ethical Practice and a resolution to change the bylaws in order to increase membership dues.

A task force, chaired by Jack D. Train of Chicago, has been working since June 1968 on the standards which, in general, recognize that far-flung changes have occurred in the architectural profession and essay to bring the ethics into line with current operations.

Some of the sections of the proposed standards which may see some controversy are those which state that:

- An architect shall not discriminate against any employee because of sex, race, creed or national origin, nor shall he accept any commission or employment that would support or strengthen discriminatory practices.
- An architect shall represent truthfully and clearly to his prospective client or employer his qualifications and capabilities to perform services. Before establishing compensation for his services, an architect shall reach an agreement with his client or employer as to

the nature and extent of the services he will provide.

- An architect shall not undertake any activity, have any significant financial or other interest, or accept any contribution that either compromises his professional judgment or prevents him from serving the best interest of his client or employer.

Regarding the dues increase, the delegates will be asked to change the bylaws in order to reconcile corporate dues of individual members in proportion to the change in the cost-of-living index with a base of June 1968. This will increase corporate dues of members of three years' standing from \$75 to \$84. It has also been proposed that supplemental dues be authorized to increase from 2 percent to 5 percent of their FICA payment on each employee, but not more than 1 percent per year. This is now \$15 per employee and would increase to \$22.50 per employee the first year the right is exercised, to be paid to the AIA by each firm.

One other change in the bylaws that is recommended deals with new membership classifications and qualifications for corporate members, professional associate mem-

continued on page 22

Reuther at the AIA Centennial

"I have said many times that the future is pregnant with both potential disaster and with unlimited possibilities of human growth and human betterment. And the great challenge before us in the last half of the 20th century is whether we are going to be able to organize a sane and sensible and moral social order so that we can avoid disaster and can bring to fulfillment the bright and unlimited possibilities of human growth."

This statement, made on the occasion of the AIA 1957 centennial convention in Washington, D. C., was typical of Walter P. Reuther, whose social concepts were often far ahead of contemporary trade union activity. Reuther, his wife, Oskar Stonorov, FAIA, of Philadelphia, and three others were killed in a plane crash May 9.

Scheduled to give the Purves Memorial Lecture at the Boston convention this year, Mr. Reuther went on to say in his centennial talk: "Fundamentally, our problem in America, the source of our dilemma, is the fact that there is a developing and growing moral and cultural lag between the progress that we have made in the physical sciences and our failure to have made comparable progress in the human and social sciences." (For the complete statement, see AIA JOURNAL, June '57, p. 166.)

Richard Neutra's Legacy Is Worldwide, But at its Best in Adopted California

"I try to make a house like a flower pot, in which you can root something and out of which family life will bloom. It's not so much a question of ornamenting the flower pot as of fabricating it in such a way that something healthy and beautiful can grow in and out of it," Richard Neutra, FAIA, once said. In California, his houses, tailored to the landscape, built of unusual materials, with diagonal roofs, glass porches and mellow lights and shadows, grace the shoreline, nestle in the canyons and embellish the hilltops. Neutra, a resident of southern California by choice, but an internationalist in reputation and influence, died in Wuppertal, Germany, on April 16 at the age of 78. On a tour of projects he had designed in Europe when he was stricken, Neutra had spent a strenuous day photographing two of his projects in Wuppertal (see *Comment and Opinion*).

Born in Vienna, Neutra received his early training there at the Technische Hochschule. After World War I, he worked in Switzerland in the fields of landscape architecture and city planning. In 1921, he went to Germany and became associated with Erich Mendelsohn. The following year the two won an international competition for a business center in Haifa, Palestine, and with the money he was awarded, Neutra came to the

United States in 1923. He worked alternately with Frank Lloyd Wright and with the Chicago firm of Holabird & Roche. In 1926, he went to Los Angeles, beginning his practice in the office of another Viennese-born architect, Rudolph Schindler.

Neutra gained international fame for the design of the steel-framed Lovell house (1927-29) built on a Los Angeles hillside. His influence was extended when his "ring-plan" school design was exhibited at the Museum of Modern Art in New York in 1929, and it was further enhanced in 1934 when he won



Richard Neutra posing for sculptor Una Hanbury of Washington, D. C., last fall.

the Gold Medal of the Better Homes in America competition.

From 1939 to 1941, Neutra designed five projects for the Federal Housing Authority and in 1943 planned a 160-acre postwar housing project in Channel Heights, California.

According to some critics, Neutra reached the apogee of his career in 1946-47 with the design of the Kaufmann desert house in Palm Springs and the Tremaine house (1947-48) in Santa Barbara. His work showed a rare elegance and precision in these houses.

Neutra was the architect of the American Embassy in Karachi, the Sanitario Universitario Italiano near Milan, a theater in Dusseldorf, the San Pedro Community Hotel in California, offices for the Ferro Chemical Corporation in Cleveland, the Dayton (Ohio) Museum of Natural History, the Abraham Lincoln Memorial Museum at Gettysburg, as well as numerous schools, churches, residences and other buildings throughout the world. For the past 30 years he was associated with his architect son Dion and for a time was in partnership with Robert E. Alexander, FAIA.

Allan Temko has said that "Richard Neutra is one of the most significant figures in 20th century architecture, not only as a great practicing architect but as a humane civic designer. He has made a profound and permanent contribution to environmental theory in the technological age."



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Among the resolutions that will be submitted at the convention are those recommending national funding for community development centers and the exemption of members who work only in CDC from paying any dues; the withdrawal of AIA support of the Office of Civil Defense Fallout Shelter Program; AIA support for the NCARB program to change and unify architectural registration procedures; abolishment of the AIA "Fellowship" program and its appurtenances; and the allocation of the AIA human and financial resources for the

initiation and implementation of development programs in the fields of government and industry.

The convention will also see the election of new Institute officers who will take office next January. Max O. Urbahn of New York City remains unopposed for the position of first vice president and president designate. Candidates for the office of vice president (three to be elected) are Richard M. Bennett, FAIA, Chicago; H. Samuel Krusé, FAIA, Miami; Sidney W. Little, FAIA, Tucson; Robert J. Nash, Washington, D.C.; John L. Webb, Baton Rouge; and George M. White, Cleveland.

For the position of secretary, Preston M. Bolton, FAIA, who currently holds that

position, remains unopposed. Treasurer Rex L. Becker still has a year to serve in his term.

Directors who have been named by their regions (an action which is tantamount to election) are: East Central States, Carl L. Bradley; New England, Hugh McK. Jones, FAIA; New York, Darrell D. Rippeteau; North Central States, Louis R. Lundgren; Ohio, James J. Foley; and Western Mountain, Max Flatow, FAIA.

One of the convention highlights will be the investiture of 64 members (see listing, p. 42) who have been elevated to the College of Fellows — a lifetime honor bestowed for outstanding contribution.

Meanwhile, the National Student Planning Committee of the Association of Students Chapters/AIA has distributed a position paper, "The Architect and Population Growth," to the membership in the hope that it will generate enough commitment to merit the drawing up of a resolution.

The paper's authors note that "There are only two ways to bring about this decrease in the rate of population growth: either increase the death rate or decrease the birth rate — the former being reprehensible, the latter is the only choice." As a result, they have formulated a policy on birth control.

This policy includes, at the corporate level, a call for an "endorsement of all methods of voluntary birth control, without restriction, including legalized abortion," and, for the individual, a commitment, "to the concept of a rate of population growth commensurate with a family size of two or fewer children, except by adoption."

'Ecologic Ethic' Becoming a Major Force In Such Controversies as Hilton Head

"The environmental bag seems to be everybody's bag," said Robert H. Finch at an environmental conference in New York recently. The Secretary of the Department of Health, Education and Welfare remarked that when he was campaigning for lieutenant governor of California, he made more than a thousand speeches predicting that the theme of "quality of life" would dominate political dialogue for the next 30 years.

At the same conference, Louis H. Roddis Jr., president of New York's Con Edison said that many of us "have donned concern for the environment like a hula hoop" and that hardly a "public official lives who has not embraced it."

E. W. Kenworthy, in an article in the *New York Times* for March 1, emphasized that concern for the environment is having a marked political effect. He commented that there are those who believe many politicians welcome the public attention on the environment because it will divert attention from many intractable problems of the cities and the blacks.

The problem facing South Carolina with a threat to the famed Hilton Head Island resort (AIA awarded the Sea Pines Plantation on Hilton Head a Citation for Excellence in Private Community Planning, *AIA JOURNAL*, July '68, p. 22.) received attention from Walter Cronkite in his news broad-

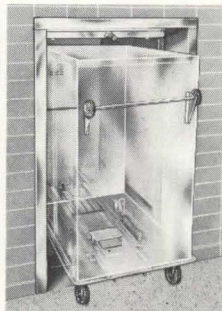
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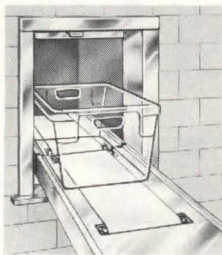


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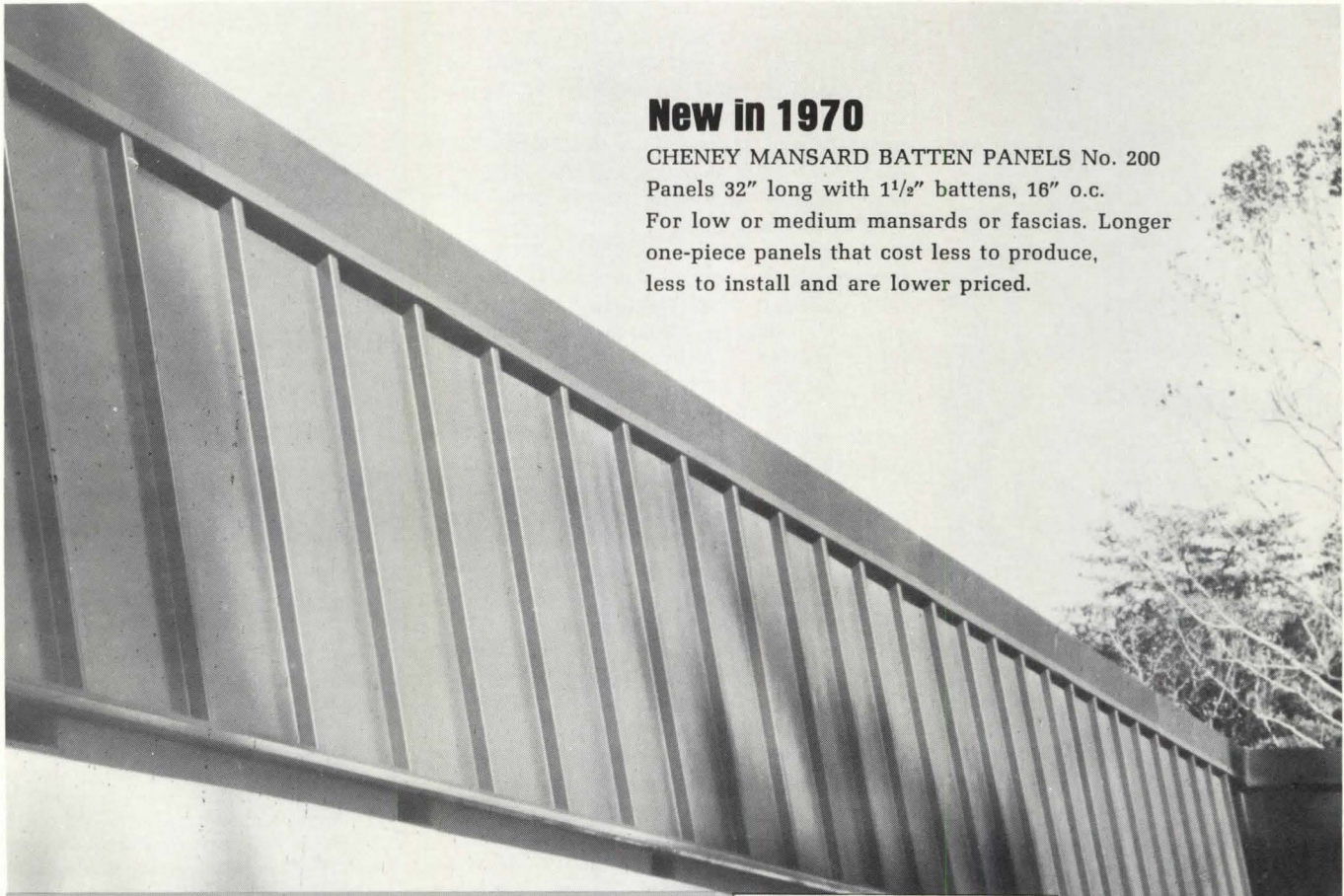
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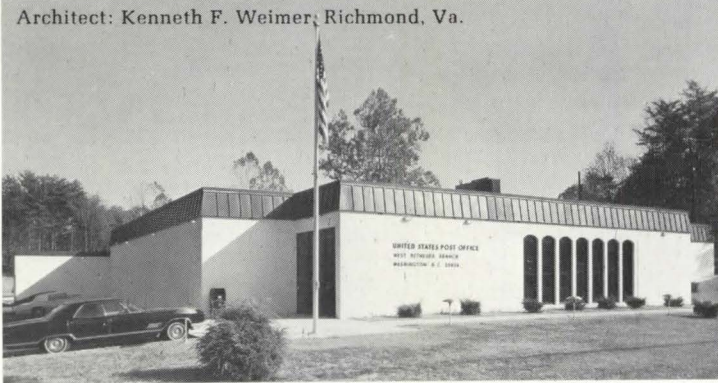
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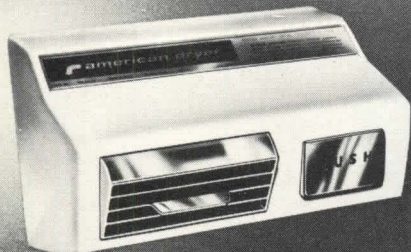
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outlook from page 22

cast over CBS on March 4. One resident of Hilton Head, who is fighting the chemical firm that wants to move into Hilton Head, reported that two years ago she didn't know whether pollution had two "I's" or one, but now she is devoting all her time to its prevention. The other side, representing development, was expressed in the words of a black resident who said firmly that the problem was jobs, and other people could take care of the pollution.

A year ago officials of the state, after a trip abroad, announced that several German industries had been persuaded to move to South Carolina. It was considered particularly important that the industries were moving to the lower part of the state, its poverty section. They would provide much needed employment, particularly for the blacks. The German industries, having imported 2½ million workers, would now export industry to where the workers were available.

For a time all was well until it was learned that one of the industries was Badische Anilin und Soda Fabrik, the giant German chemical firm, which proposed to build a mammoth chemical production complex close by Hilton Head.

Immediately resistance to this industrial invasion mounted when it was realized that BASF would probably pour millions of gallons of chemical waste per day into the waters of this South Carolina estuary. Thus an argument between South Carolinians seeking industrial development of the state and conservation-minded citizens has been set in motion.

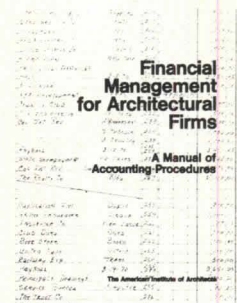
A recent quarter-page advertisement in the *New York Times* by Concerned South Carolinians for a Better Environment Committee called attention to the impact of BASF upon the estuary and proposes to contest the establishment of the industry with those elected state officials who asked BASF to move into South Carolina in the first place.

It seems clear that the political and business leadership can no longer afford to ignore the "ecologic ethic." The state is facing a major confrontation between the traditional Democratic and the rising Republican parties this summer and fall. Consequently, a major environmental policy issue appears in the offing with politicians and business interests involved. The controversy, from all reports, is becoming more involved every day. As South Carolina moves into the '70s, the economies of developing the low country is becoming "ecologized."

BASF's efforts may not be totally defeated, but at least the pressure has changed some of its plans. With Interior Secretary Walter J. Hickel entering the scene, BASF has postponed for possibly a year its plans to build the plant. Hickel had warned the firm that it would face federal action if it polluted the waters or air of the resort area. A spokesman for the South Carolina Development Board said that BASF merely wants time for "state and federal agencies to get together and come up with a set of rules that the company must follow." The debate goes on.

continued on page 26

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Ada Louise Huxtable Adds to Her Critic's Laurels with a New Pulitzer Category

For those who view architecture as an index to American thought and civilization, the awarding of the first Pulitzer prize for distinguished criticism to Ada Louise Huxtable is of more than passing significance. The new category has been established for criticism or commentary.

Mrs. Huxtable has been architectural critic for the *New York Times* since 1963 and in this capacity "has not feared to attack the mighty cultural institutions of the land," in the words of the citation. Her sharp and analytic prose is so quotable that writers are constantly in her debt.

In 1969, the AIA's Architectural Critic's Medal was presented to Mrs. Huxtable who was cited for "a distinguished career devoted to architectural criticism."

Born in New York in 1921, Mrs. Huxtable was graduated from Hunter College. From 1946 to 1950, she was assistant curator at the Museum of Modern Art. She studied contemporary Italian architecture under a Fulbright scholarship.

STOL Port Would Adapt to Environment

How can an airport meet all its utilitarian requirements, and at the same time respect the conservation of land and the preservation of the natural environment? One way is to make it float.



Students Ahrendes and Eng with a model and an enlarged section of their STOL port.

Two University of California, Berkeley students have won the \$5,000 Reynolds Aluminum Prize for Architectural Students with an imaginative concept for a short take-off and landing facility designed for a location off the northern end of Treasure Island, almost equidistant between Oakland and San Francisco.

The winning design, submitted by Joe Y. Eng and John P. Ahrendes, is that of a floating airport which is basically an aluminum space frame, with structural strength provided by struts and high-tension cables. Large inflated bags would provide buoyancy. Pivoted on the central terminal tower, the port could be rotated 90 degrees by means of motors mounted on an underwater tract connected at mid-span of each runway.

Runways of 1,500 feet each extend out from the center section. Planes would land on one and take off on the other.

Service from the mainland to the STOL port would be by ferryboat or, in some cases, high-speed hydrofoils.

Cloud of Gloom Prevails as Architects, Theologians Ponder Role of Church

"I propose that you [architects] reject all church and synagogue commissions, that you undertake solemnly to talk building commissions out of their monument-building until human needs have been taken care of, and that you talk them into sponsoring new low cost housing."

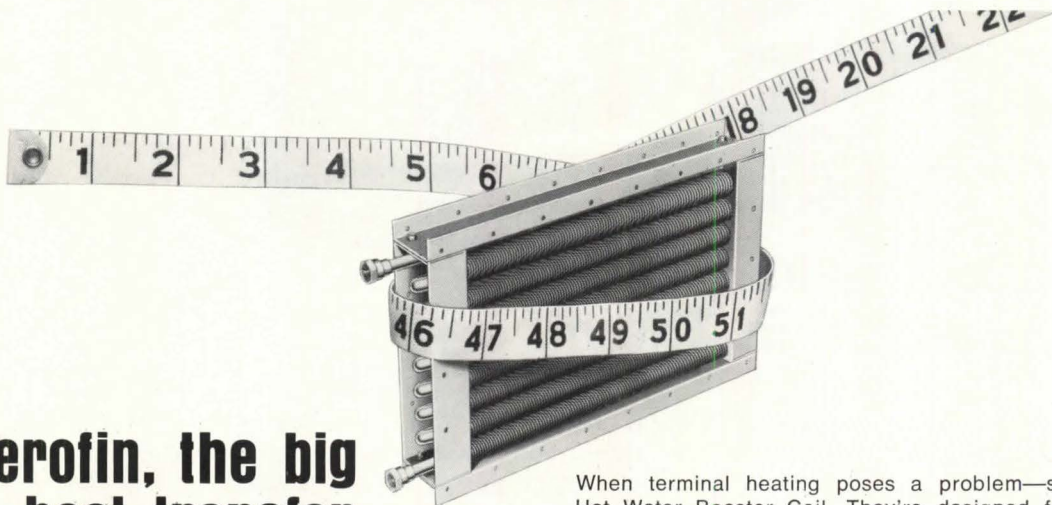
Surprisingly enough, that hard and uncompromising proposition was put forth in the opening address of the National Conference on Religious Architecture in April, setting the tone for the three-day program.

Keynoter Rabbi Eugene J. Lipman of Washington, D. C., the host city, declared, "The theme of this conference is involvement, and the effort to sponsor low cost housing would be real, coherent, moral, sacred involvement."

But Archibald C. Rogers, FAIA, in a speech that closed the conference, took a different tack with searching questions about art and the direction of Western civilization itself. "Architects must produce art. Therefore, to stop building is to defy that architecture is art," he countered.

In the conference's initial statement, Rabbi

continued on page 28



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Lipman deplored that "all too many churches and synagogues are holy mausoleums, memorials to the living God, and our college-age kids grope more honestly for holiness and sanctity than they do."

Man's technology and his soul are at war within him. Technology and religion are not yet reconciled, let alone integrated, he said.

Declaring that coherence with the universe is an element of good religious architecture, Rabbi Lipman asserted that religious institutions either are resisting or just beginning to come to grips with "the depth of our inner schizophrenia."

He went on to say that "there is rampant racism in churches and synagogues, middle-class snobbery, worship of the material." Until this is dealt with and overcome, no coherent building can be made, he suggested. Congregations must earn the right to build honestly.

"In American society today we rarely know what is real and true. Uncertainty, phoniness, the facade hiding the empty idolatries of all sorts are expressed in church buildings," Rabbi Lipman stated.

He also proposed that each architect design one church or synagogue structure — no more — and that he not build it, just design it, refining it over the years. One day, when a relevant and worthy institution may come along which has earned the right to build, "give your design; make a joyful sacrifice to your God."

Needless to say, Rabbi Lipman's speech stirred lively debate among the some 300 architects, artisans, exhibitors, theologians and denominational officials who attended. One architect said later: "All we've been hearing from the churches and synagogues the past few years is that we're not needed."

Among the dissenters was Robert L. Durham, FAIA, of Seattle, who replied, "To say that we should build no new churches until everyone is decently housed is like saying we should not give attention to pollution until social justice is extended to all people. New churches must be built, for the children are already born who cannot be adequately served by poorly designed, worn-out buildings."

Rogers, in his eloquent banquet address that lifted the discussion from the immediate and practical issues, said, "We are privileged to participate in the third major time of trouble in the history of our civilization. The first was after the failure of the Roman Empire, the second was the 14th century and third is our time: the death of the Renaissance."

How can we serve this age — an age of change itself, asked the Baltimore architect-planner. "Answers may be found partly in existentialism and partly in the hippie world. Go back to being. Become artists."

Art, he pointed out, has four characteristics: 1) comprehensibility — one must be able to understand it; 2) power — it must affect you, either into hate or love; 3) individuality; 4) integrity — not honesty but irreducibility, so that its concept is not easily added to or subtracted from.

"A human is no more than a vessel: Art

continued on page 32



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speaks after the artist," Rogers continued. "This concept of the artist is very different from that of the Renaissance. It says that the artist is not an egoist but an empty conduit. The seer and prophet is art, not architecture. Art is freer than architecture and because it is freer, it is further ahead."

During the program that preceded, the participants felt a gloom that lifted only here and there — by a lively student discussion, by field trips and by visits to the architectural and religious arts exhibits, the latter having been acclaimed as one of the finest ever assembled. (Winners will be shown in *Faith & Form* for October.)

An informal communion gave added sparkle to an undergraduate session when four third-year architectural students came forth with loaves of bread and jugs of Chianti for the conferees so that "they can get together, stop talking at each other and begin speaking with one another."

Among the speakers was Steven Gallagher of Virginia Theological Seminary who said the purpose of the Christian community was a therapeutic ministering to individuals and that social involvement should never cloud this primary interest. He warned against "superficial response to everything which precludes a passionate response to anything."

The newly elected president of the Guild for Religious Architecture, Nils M. Schweizer, AIA, of Winter Park, Florida, took the discussion out of the social action plane and into the architectural plane, but his conclusions were as dismal as Rabbi Lipman's.

Mankind is losing contact with the natural world and therefore the visual and spatial factors of his constructed world are the "most important factors for his survival," he said. He criticized religious institutions for totally confusing both the religious community and its architects by "promulgating a past which is becoming increasingly irrelevant, both in forms of worship and structures."

Three speakers pointed to new kinds of architectural involvement at one workshop. Among them was Hugh M. Zimmers, AIA, consultant to the Institute's Task Force on Professional Responsibility to Society, who described the some 40 community development centers around the nation in which leaders use voluntary technical services provided by architects, engineers, lawyers, etc., to bring their projects to reality (see *AIA JOURNAL* for May, p. 10).

Mrs. Polly Shackleton, ex-member of the Washington, D. C., Board of Commissioners, thought of involvement in terms of the architects' receptivity to what was wanted by the client, rather than an imposition of his own ideas.

"At long last, the profession now recognizes the importance of listening and paying attention to the client, whether he be rich or poor," said Mrs. Shackleton, a newly appointed member of the District's Model Cities Commission. She also related the role that local churches played through the ghetto riots and disturbances that have taken place here in the past few years.

The Rev. Daniel L. Pierotti, planning com-

mission chairman of the Lutheran Federation of Washington, D. C., also talked about community organization, but in relation to buildings. He called for intensive discussion by congregations about what they really wanted their churches to be before they decided to build.

The current crisis in church building is a reflection of the crisis in society "to which the church is responding more falteringly than courageously," commented the Rev. T. Scott Ritenour, director of the National Council of Churches' section on church planning and architecture.

He documented his statement by citing published reports of a 25 percent decrease in the amount of general church and synagogue construction in the last four years.

While some interpreters blame high interest rates, the increased cost of materials and the tight money situation, others see a direct connection between reduced church building programs and a growing commitment to social programs.

New Merger Will Present Combined Attack On Many of the Problems of Urban Life

Three years ago, the National Urban Coalition didn't exist. Today, there are more than 10,000 Americans associated with it, working through 47 local coalitions and the national organization. Among them they will raise some \$30 million this year from private sector sources.

Late this March, the Urban Coalition achieved a new position of strength through its merger with Urban America, Inc., the organization that AIA Executive Vice President William L. Slayton used to head.

John W. Gardner, coalition chairman, speaking on the occasion of the merger of the two groups into the National Urban Coalition, voiced the feeling that "This merger will give us one body better able to define and clarify the highest priority problems of urban areas."

Echoing Gardner's sentiments, William D. Eberle, chairman of Urban America, stated, "By combining the strengths of both organizations we will be able to approach urban problems with a breadth and scope that better matches their complexity."

Urban America was formed by the late Stephen Currier in January 1965 as a continuation of the American Planning and Civic Association, and in December of that year merged with ACTION, Inc. Its major programs have been in the areas of information gathering and dissemination, urban design and planning and technical assistance in housing. Last year it adopted an organization-wide focus on the subject of urban growth policy.

The Urban Coalition was formed in the summer of 1967 while a pall of smoke still hung over the devastated streets of Newark and Detroit. The coalition first focused its attention on those problems — employment, housing and health — which had bred civil disorder. More recently, it has broadened its concern to encompass changes in the national attitudes, priorities and institutions; the systems of urban government and development,

continued on page 34

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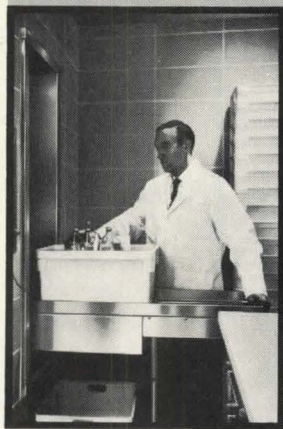
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by which these conditions are created and perpetuated.

The merger represents a continuation of this broadening process, Gardner said. It means that the coalition will be more involved in problems of urban development and environment. In particular, he said that the National Urban Coalition would continue Urban America's major program in the field of urban growth policy.

Headquarters for the merged organization are located, for the most part, at 2100 M Street, N.W., in Washington, D. C.

City magazine, the bimonthly review of Urban America, will continue publication in expanded form under the direction of its present editor, Donald Canty, who joined the Urban Coalition as its editorial director on January 1.

Architects' Problem with Arbitration To Get Worse Before it Gets Better

"The humorist who once said the architect covers his mistakes with ivy, now would probably state that the architect had better make his mistakes visible."

So said Nathan Walker, legal counsel to the New York Chapter AIA, as he discussed the latent or concealed type of changed conditions that are covered in an architect's contract.

Walker was one of a number of nationally prominent authorities on law, business practices in the construction industry and arbitration who met recently in New York at a conference sponsored by the National Construction Industry Committee of the American Arbitration Association.

One of the most frequently heard predictions of the various speakers was that due to the probable rise in the number of construction industry employees and the foreseeable increase in new housing starts, there will be a greater number of injuries to third parties, resulting from professional negligence, for which architects will be liable.

A number of the speakers noted the fact that the architect fills many roles. Because of his contract with the owner, his supervision of the job and his posture as arbitrator between the owner and contractor, the architect becomes involved in principal-agent relationships; acts as the owner's agent; and performs in a quasi-judicial capacity.

Heretofore, because of the tremendous scope of contact, resulting from the architect's first contract, there has been an almost nonexistent attempt to extend his responsibility beyond the parties privy to that contract.

However, times have changed, and the bulk of the litigation that architects will face will concern third parties and will arise out of the area of supervision.

The speakers cited a number of reasons: the abdication of contractors of their traditional responsibility of coordinating and controlling the building process; an almost complete abandonment, in many cases, of quality control procedures; and the increasing number of architects who extend their duties to include members of other design professions.

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THE RISE OF AN AMERICAN ARCHITECTURE

Edited and with an Introduction by Edgar Kaufmann, jr. Foreword by James Biddle and Thomas P. F. Hoving. Based on the major exhibition of 19th-century American architecture at The Metropolitan Museum of Art, this profusely illustrated book contains essays by four outstanding scholars: Henry-Russell Hitchcock, Albert Fein, Winston Weisman, and Vincent Scully. Published in association with The Metropolitan Museum of Art. 202 illus. \$10.00

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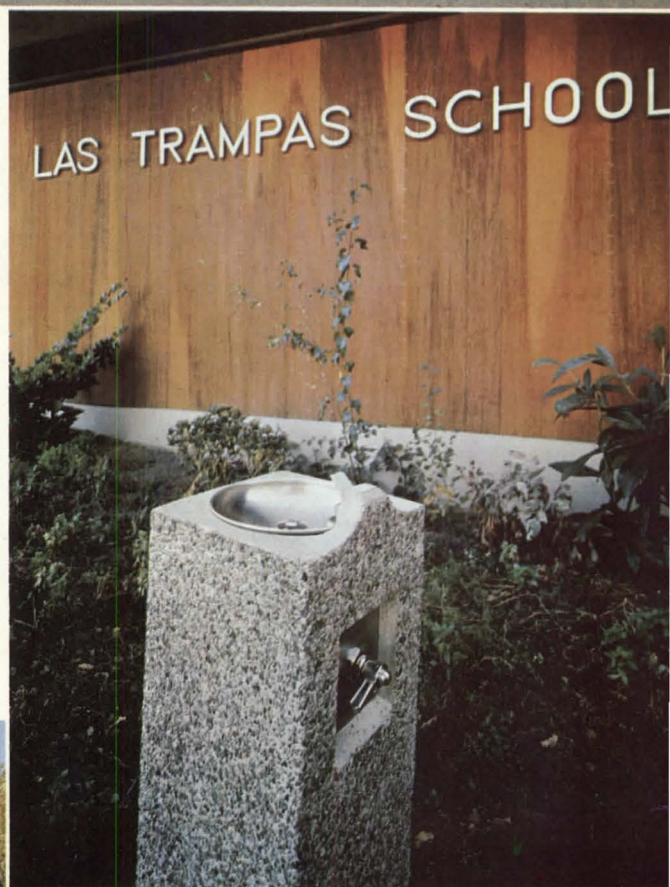
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From the Ruins, with a \$15,000 Assist, A Richardson Memorial Takes Shape

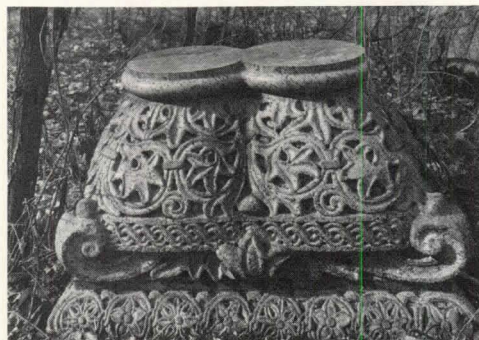
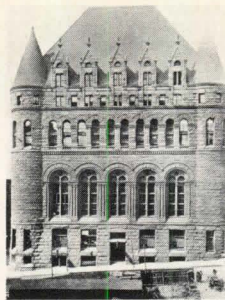
Operation Resurrection, a University of Cincinnati project to honor Henry Hobson Richardson, will be completed this spring—provided an estimated \$15,000 is raised by that time.

Begun in 1966 by architectural students and faculty with the support of Cincinnati's professional and business community, Operation Resurrection set out to construct a permanent Richardson monument from the carved pink granite remnants of his Chamber of Commerce Building.

Richardson won a professional competition for the design of the building in 1884. However, in January 1911, it was gutted by fire; and even before the structure was dismantled, citizens expressed the hope that the building, in some form, might continue to be a part of Cincinnati. Stonework has remained strewn on the hills of the Cincinnati Astronomical Society since that time.

Following the donation of the stones by the society, Operation Resurrection participants conducted a design competition underwritten by the Cincinnati Chapter AIA (AIA JOURNAL, Feb. '69, p. 24), to select an appropriate memorial, sited in Burnet Woods adjacent to the university.

The winner was Stephen J. Carter, an architectural senior, who used approximately 130 pieces in a circle with a 32-foot diameter.



A portion of the pink marble remains of Richardson's Cincinnati Chamber of Commerce Building, shown before gutted by fire.

The stones will be set singly upon a concrete pad, with the tallest being about 18 feet high. The design, in the jury's judgment, reveals the intrinsic value of the individual stones.

The needed \$15,000 includes the cost of moving the stones and erecting the granite. With receipt of these funds, construction will

begin. However, to date only \$1,200 has been raised, and the students had planned a "slab-in" in May to generate more funds.

The Miami Purchase Association, a charitable, tax-exempt organization dedicated to the identification, preservation and restoration of historic buildings and sites, has agreed to receive and account for contributions. Checks may be made payable to "Miami Purchase Association—Operation Resurrection."

Utility Lines Go Under; Maryland Looks To Removal of Existing Poles in Future

Maryland, in a move which may be prophetic for the rest of the country, has become the first state in the nation to require underground installation of almost all utility distribution lines in future construction.

The state's Public Service Commission placed an effective date of October 1, 1969, on regulations which cover all new industrial and commercial buildings. Just a year before, Maryland had ordered that power and telephone lines to virtually all new apartments and homes be buried.

William O. Doub, commission chairman, said that the major motivating factor behind the regulations was a desire to stop the esthetic destruction of the landscape. He added that the public would benefit in terms of possible lower maintenance costs and greater reliability.

The next move that the commission makes will be what it terms the "conversion phase"

continued on page 38

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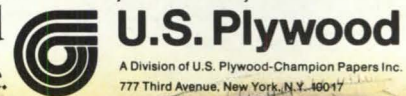
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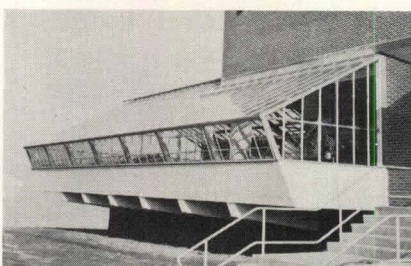
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of its overall design to do away with utility poles. This phase will require that all overhead distribution lines be buried, a move that Doub acknowledges would be "astronomically costly" and would require a 10- to 15-year period to effect.

In an attempt to solve the difficult financial problems associated with underground conversion, Doub has requested each of the 19 electric companies that the PSC regulates to consider the subject from their individual points of view and file comments with the commission. In particular, he wanted feedback on items which must be considered in determining the cost of conversion; the portion of the cost to be contributed by the utility; the desirability of the utility accumulating an amount earmarked for conversion; sources of other funds which might be available for conversion; and methods by which the customers might pay their portion of the cost.

Noticing that the new regulations were "a real breakthrough," Doub said that he has been asked to send copies of the regulations "to every state and some overseas countries."

Optimum Environment, Minimum Housing Standards Stressed by HUD

A series of design and construction standards, presently being developed by an interdisciplinary team of senior Department of Housing and Urban Development design professionals, could well presage a new level of quality in federally financed housing.

The purpose of these performance-oriented criteria is to unify and upgrade present standards for both public and FHA-insured housing. In these new standards, architects, engineers, planners and landscape architects will receive considerable professional latitude and responsibility in solving development problems. Especially encouraged will be the development of imaginative designs and construction methods which give promise of increased quality and reduced costs.

The new standards will seek to provide a basic assurance of minimum quality, much as the Design Awards Program has sought optimum design quality in HUD-assisted work for some years. HUD will also stress a third quality area — research — in order to better understand many related housing and urban development issues. Operation Breakthrough falls in this latter category.

As Ralph Warburton, AIA, special assistant for urban design, stated at the 13th annual Koppers Architectural Student Design Competition banquet in Washington, D.C., "A principal research issue is that many valuable technological and management innovations now exist in concept or in limited application and would be in widespread use but for the existence of a number of constraints. These include nonperformance zoning ordinances, subdivision regulations and building codes; craft labor rules; financing policies; governmental administrative practices; the lack of idea-sharing mechanisms, etc."

Warburton also noted that there have been

continued on page 40

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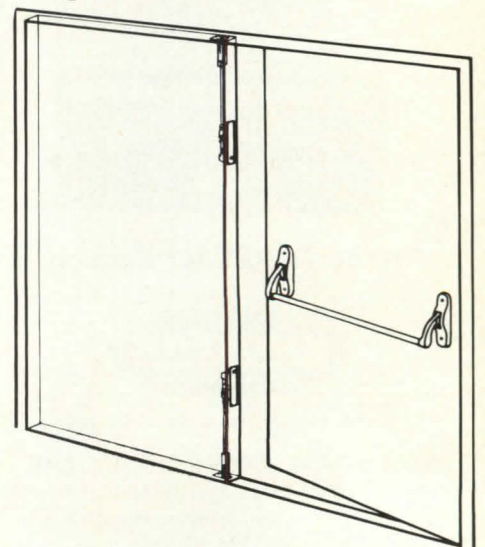
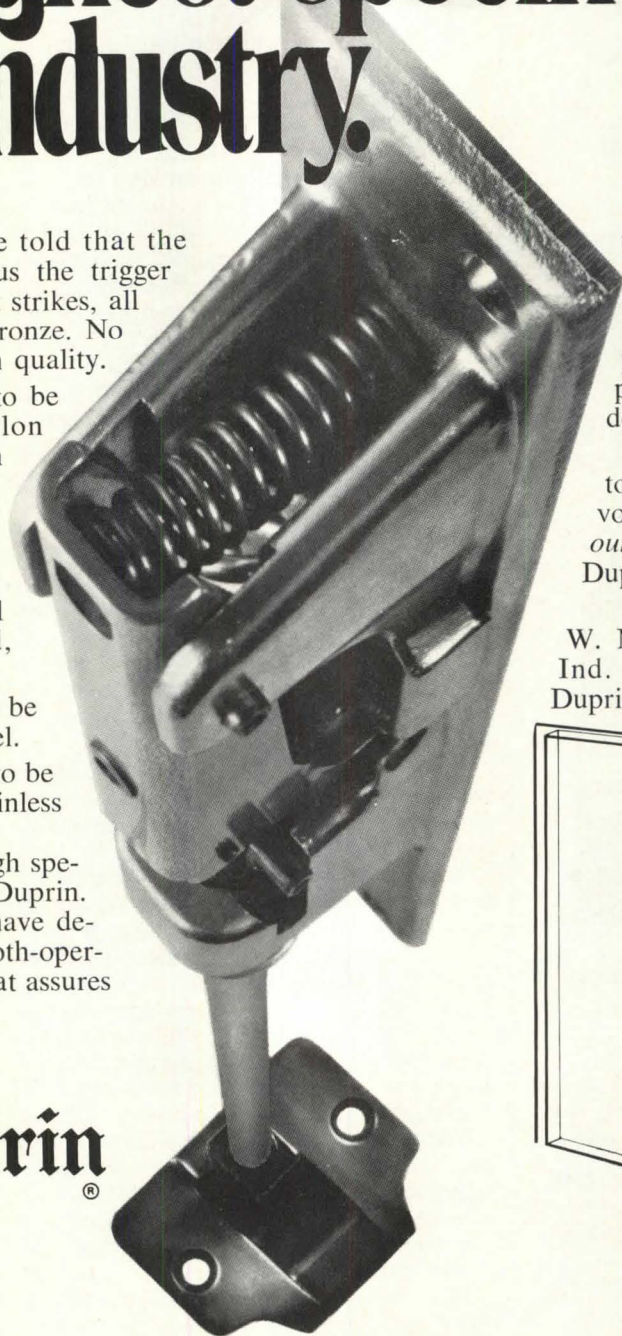
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Circle 187 on information card

outlook from page 38

a number of recent grants by HUD which "include a study of residential street design, to be conducted by architects, engineers and sociologists at the Institute for Architecture and Urban Studies in New York."

**Standard Roofing Bonds Being Replaced
By Simpler Versions, Broad in Scope**

The roofing bond, as it has been known for the last 50 years, is changing—and changing for the better. Not only will it have a wider field of coverage, but it also will be written in simple, everyday language.

Three major roofing companies—Philip Carey, Celotex and Ruberoid—with the rest of the field expected to follow suit, have announced major changes in their bonding and guaranteeing policies. Although each of the firms is reacting to the ever-increasing problem of roof failure in a different way, they are all trying to deliver a better roof to the owner, improve relations with the roofing contractor, and project a better image for the roofing industry.

Some of the more important features of the new programs released at the National Roofing Contractors Association's 83rd annual convention in Washington, D.C., are:

- Standard roofing bonds will shortly not be available from any of the three companies.
- Plans are being made to offer assistance to architects and specifications writers in preparing specifications and details for roofs to be covered under the new program.
- Employees of the manufacturer will inspect the progress of the job as it is being applied, making sure that specifications are being followed and that good workmanship is being practiced.
- The manufacturer will issue a broad 10-year guarantee covering roof leaks from whatever source. Some qualifications will be made, but it is not the intent to provide "loop-holes" for escaping responsibility.
- One manufacturer, Philip Carey, will require periodic inspection and maintenance of the roof by the roofing contractor in order to keep the guarantee in force.
- At the end of the 10-year period, the owner will have the option of extending his guarantee another 10 years as long as he makes recommended repairs.

One of the most refreshing aspects of the new guarantees is their language. What once began with "Know all men by these present" type of language, now is a simple "The Roof applied to the building described above is guaranteed for ten (10) years from date of completion shown above. Under this guarantee The _____ Corporation will pay all costs of repairs necessary to correct leaks resulting from the following causes . . ."

The breadth of coverage is noteworthy too: natural deterioration, workmanship, ridges, fish-mouths, bare spots, blisters, slippage, gravel stop or other metal failure, pitch pan failure, splits not caused by structural failure and thermal shock.

Not covered are structural failure, natural disasters, changes in building occupancy, or penetration through the membrane.

**Many Cities, Campuses Across Land
Feel Planning Influence of S. B. Zisman**

Cities across the country, including such diverse ones in size and in geographical location as Washington, D. C., Little Rock, Salt Lake City, Atlanta, Fort Worth, Syracuse, Oklahoma City, Topeka, Independence, Missouri and Lockhart, Texas, have benefited from the wise counsel of Samuel B. Zisman, AIA. Formerly director of the Council on City Planning in Philadelphia and chairman of the Housing Authority of Bryan, Texas, Mr. Zisman, who died in San Antonio on March 25 at the age of 62, was an active and respected member of the American Institute of Planners as well as the AIA.

A consultant on campus planning for the New York Department of Education, Mr. Zisman's professional work included the preparation of campus plans for many colleges, universities and schools. A consultant for the Primate Research Center, Duke University, he was also the designer of a Primate Research Center in Kenya, Africa and of the Great Southwest Industrial Park between Dallas and Fort Worth.

Mr. Zisman's contributions to educational institutions included his work as a professor as well. A graduate of the Massachusetts Institute of Technology, he served on its faculty for five years, followed by tenure on other college faculties. He was a consultant to the Rockefeller Foundation, the Educational Facilities Laboratories, the Ford Foundation's program in South America and to the board of the National Council of Architectural Registration Boards.

Mr. Zisman's services to the federal government included his work as consultant and urban planner for the National Resources Planning Board, the Department of Housing and Urban Development, the Department of Defense and the Department of the Interior, having recently completed a study on open space planning for the latter.

Co-author of *Action for Cities*, Mr. Zisman was the author of other books and articles on planning and architecture.

Deaths

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Fort Worth, Tex.

VICTOR OLGYAY
Princeton, N.J.

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Milton, Mass.

WILLIAM G. THAYER JR.
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ATLAS WHITE and terrazzo make a big splash at the Eastwood Mall

Part of the pleasure of shopping at the new Eastwood Mall in Niles, Ohio, is the floor show. Splashing fountains and eye-pleasing terrazzo floors. White Georgia marble was used for fountain interiors, but terrazzo lines the base. In the fountains and floors, the terrazzo blends beautifully with the warm cream color decor of the Mall. ATLAS WHITE and yellow pigment with Herculeaneum Botticino and Italian Verona marble were used. Light tan chips highlight the design. ATLAS WHITE was used because it insures uniform, lasting color. Terrazzo Contractor: Canton Terrazzo Floors, Inc., E. Canton, Ohio. Architect: Andrew J. Burin Associates, Cleveland, Ohio. Developer and General Contractor: William M. Cafaro & Associates, Youngstown, Ohio. ATLAS WHITE is only one of a wide range of cements produced by Universal Atlas. Write Universal Atlas Cement Division of U.S. Steel, Room 5393, Chatham Center, Pittsburgh, Pa. 15230. ATLAS is a registered trademark.

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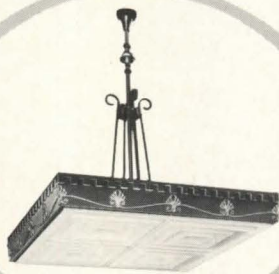


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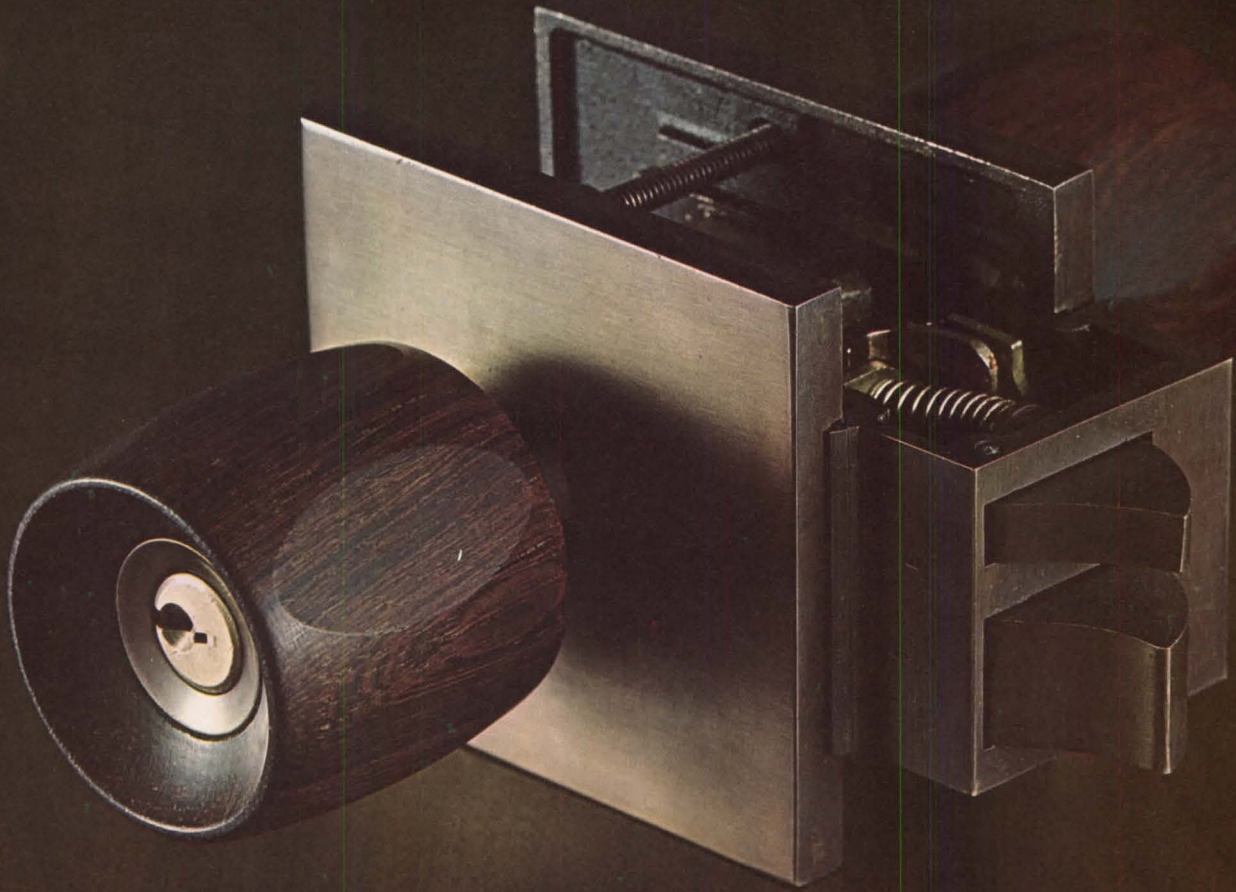
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Programs for the Practitioner

by WILLIAM L. SLAYTON
Executive Vice President

My first seven months with the AIA have been busy ones. I have spent them in learning the operations and programs of the Institute and in trying to fashion its programs for this year and next.

Although I have had to spend a considerable amount of time on the Institute's new programs and activities, I have been struck by its operations in the field of professional practice. The Institute has fashioned a program to assist the architect which is, in my opinion, outstanding. I have been singularly impressed with the work of the Documents Review Committee and with the work of those committees that are concerned with means of aiding the architect to improve his practice. This is, of course, a major function of the Institute — its major *raison d'être*.

But although I have been impressed with the work of the AIA in the field of professional practice, I have been struck with the need to expand our services in this area. This is particularly true in today's economy, where the architect finds his economic well-being jeopardized by the cutback in construction. Thus the Institute needs to give even greater assistance in times such as these to aid the architect in improving his financial situation.

But this is not the only reason why it is necessary to improve and expand the Institute's services in this field. The United States — and the rest of the world, too — is in a period of accelerated change. We must learn to anticipate change and adapt our operations to meet such change. This applies in the field of architecture as well as in the fields of business and science. The role of the architect is being examined. His role can expand and encompass the increasing demands of clients, or it can continue in a limited role allowing others to assume the functions now being demanded by the client.

It is the AIA's role, it seems to me, to assist the architect in every way it can to enable him to perform in an expanded role.

To help the efficiency of the architect's office, the Institute shall concentrate on producing documents and aids that will assist the architect in being as creative in his approach to the management of his practice as he has been in dealing with architectural concepts and technical problems.

A basic purpose of the AIA is to increase administrative and productive competence in the practitioner's office as well as increas-

ing his business capabilities in the highly competitive market place. This is why we have been concentrating on, and shall continue to concentrate on, such things as the use of computers, the development of computer specifications, the publishing of guides on financial management, etc. I hope you will let us know those items to which you would like us to pay particular attention.

The Institute also has the obligation to aid the practitioner in meeting the increasing demands upon him — demands that will continue to increase in the years ahead, assuming the architect is equipped to respond to them.

Here, the AIA will be concentrating upon such things as construction management, spelling out ways in which the architectural firm can serve the client in the management of construction and yet maintain his professional status. The architect who ignores the coming role of construction management may well find his architectural services being provided by others.

Similarly, the architect who is not familiar with the finances of development will be, and is, at a disadvantage in dealing with entrepreneurial clients. If the architect is to represent the interests of his clients and if his client is an entrepreneurial developer, the architect must understand the entrepreneurial field and the market forces that shape the character of development.

And in dealing with urban growth, the architect must be able to provide services that can deal with large-scale urban development, not just the design of individual buildings. We shall have legislation at the federal and state levels on the development of new towns and the control of development on the periphery of our metropolitan areas. Such programs will require the services of many professions. The architect's role will be limited to the designing of individual buildings rather than the creation of development plans unless he is equipped to create such plans and has worked out a means of associating himself with other design professions to create them.

The Institute, therefore, should be concentrating on aiding the architect in meeting the demands that this new role will require of him and increasing substantially its continuing education programs as well as its business development programs. This I hope we can do at the AIA in our 1971 program. □

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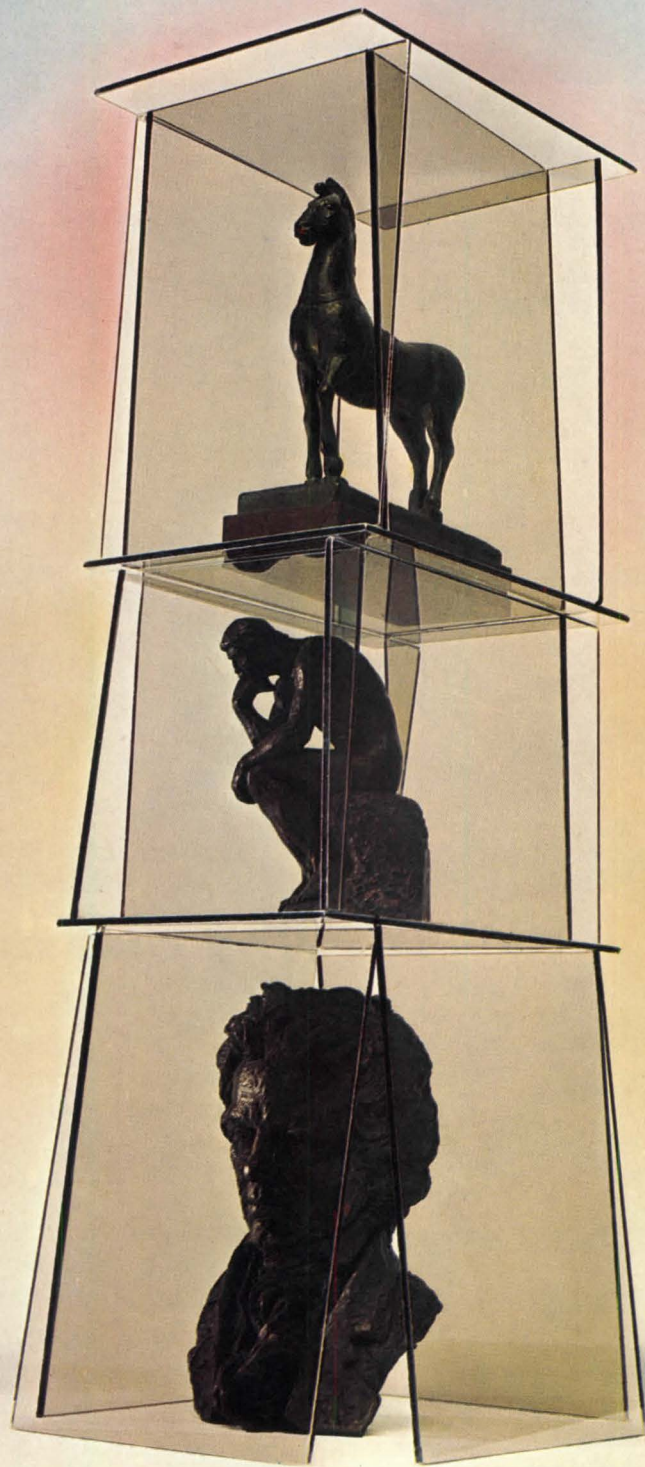
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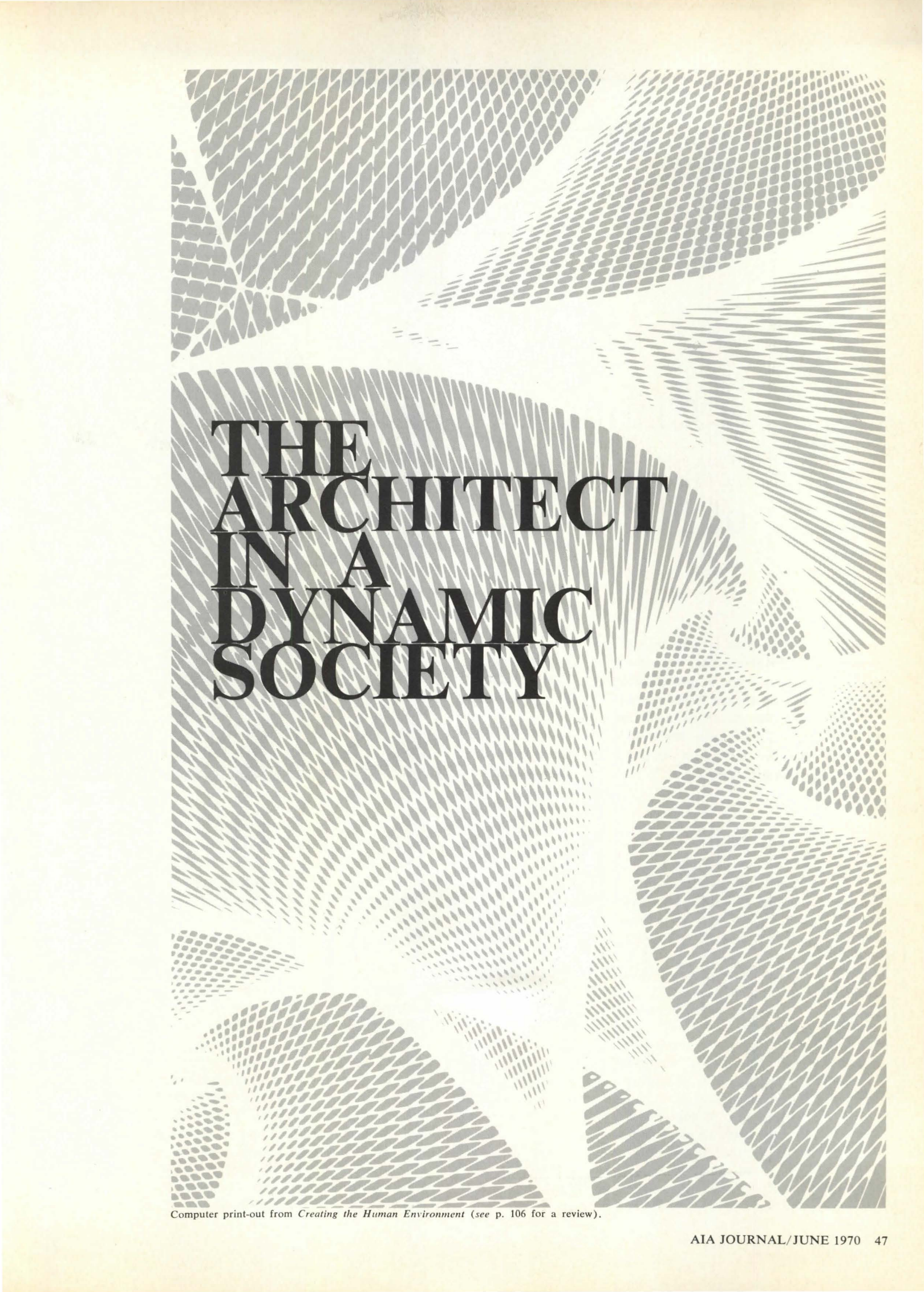
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THE ARCHITECT IN A DYNAMIC SOCIETY

Computer print-out from *Creating the Human Environment* (see p. 106 for a review).

A Clarion Call for Men of New Vision

by NATHANIEL A. OWINGS, FAIA

At Issue: In seeking an esthetic by which to live and build, we ought to be clear about what we want to avoid. Unfortunately, much of what we want to avoid we have already created, so our search in part means threading our way through the labyrinth of unesthetic decisions made at crucial times in our development. Alfred North Whitehead reminds us that "the major advances in civilization are processes that all but wreck the societies in which they occur."

There are certain signs of a changing, hopeful climate, as indicated by youthful protest and new attitudes of elected and appointed officials of government.

An upheaval, positive in nature, with new starting points and new definitions of terms is required, with revolutionary ideas turning work into play and abandoning the national goal of a satisfactory environment. We already have many things going for us.

Each great civilization has built and rebuilt its cities, from the Euphrates to the Nile to the Greek Isles to Imperial Rome. The ability to conceive and design and execute total environments has been demonstrated. If we are a great civilization we can do the same for our country.

What kind of education, training, leadership is needed to produce the blueprint for such a dream? It will not come from conventional sources. Contemporary city planners, architects and engineers are products of conceptual systems we know have failed. Not that the professions are inoperative — quite the contrary. The modern corporate executive usually chooses an architect known for an individual trademark, such as a grill or arch, much as he might choose for sculpture a Henry Moore or a Giocametti. In this way a premium is put upon the packaging



rather than the plan and function, and the goal is to fit a startling shape over a piece of utilitarian space. This system makes no provision for controlling the environment of this masterpiece against future adverse intrusions. The "name" architects who handle this kind of product design are few in number and tend to exert about the same influence on the profession as a whole as the wedding cake on the baking industry. This practice of purchasing product design is in itself not objectionable, except that the attention given it tends to obscure the real contribution that the profession makes to the total environment.

The problems of environmental control in broad depth should be our profession's greatest concern. Although our cities are studded with highly visible, much publicized individual constructions, the 30,000 or more registered architects have little or nothing to do with these and are occupied with far less colorful commissions. They become basically craftsmen, performing the utilitarian functions required by the everyday life of our towns, cities and megalopolises. These practitioners have the bread and butter work to do, the unglamorous jobs of producing schools, for instance, within budgets that are too low, on predetermined sites located in the wrong areas for populations that are growing and changing too fast too soon. There is a constant struggle to



earn a living without compromising their esthetic or ethical standards, to serve on civic boards and commissions, contributing special knowledge without which the community is at the mercy of the speculator. Like the medical corps on the field of battle they try to staunch environmental wounds as best they can and to stem forces that they had no hand in releasing and little power to control.

In a similar context there are the engineers with whom the architect engages in continuous conflict, blaming all manner of sins upon them. The fact is that much of what the engineer does for the architect is creative and indispensable. His service to the architect involves making even the more tortured of architectural designs stand. But the engineering profession has a life of its own and in the field of design, and often construction, handles about 90 percent of the type of installations or constructions that literally change the face of the land. The engineer creates heroic images in the form of huge dams, reservoirs and irrigation works. He designs and builds huge chemical complexes, harbors, docks, shipyards, the nation's sewage and water treatment plants. He has laced a network of pipelines and highways across the continent. He is the principal instrument through which the face of our continent has been altered, but he is the implementor rather than

the creator of broad policies and master ideas. Thus in engineering design the vital esthetic ingredient is often missing. Yet when the talents of both professions, architectural and engineering, are properly joined, great works of utility and esthetic beauty can result.

But if we cannot look to the architect and the engineer for guidance, then where can we look? Who will provide the blueprint? History shows that the great leaders of men were seldom professionals. The Pharaohs, the Caesars, the great Popes, for example, conceived and directed the building of much magnificence. Haussmann and Napoleon III rebuilt Paris. Washington and Jefferson provided the imagination and courage to design our capital city. All evidence seems to point toward the statesman-politician, aided by some form of urban concept team, as the source of leadership to implement the programs of a government and private sector, to join together, forming a conservation, environment-oriented working party.

Guidelines for such a program, designed for the creation of the machinery for developing a better environment would include:

Choice of Profession: A variety of professions and disciplines are relevant since every facet of education has an application to

the subject. But let there be a strong desire for thoroughness and mastery embodied in the choice. Let it be certain that those selected for training have the capabilities to absorb the knowledge and assume the power necessary to do the job. The role of government, and the appropriate curricula for the proper preparation of those who intend to enter it as a career, must be defined and implemented. The science of government should be given the dignity of an established profession. Although governmental involvement with our environment is basic, and although a form of socialism in this country already exists, the private sector under such joint efforts as those proposed by the "urban coalition" could outperform and be far superior to any type of government bureaucracy. Young people must look at the balance sheet and note the difference between the short-range gains of our profit system and the long-range costs of dissipation of natural resources in repairing the blight, poverty and distress this system often causes.

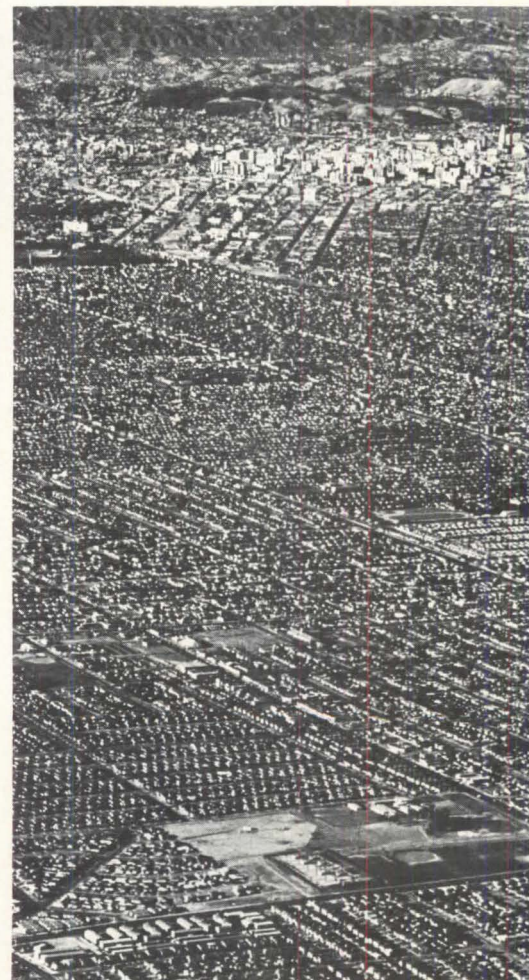
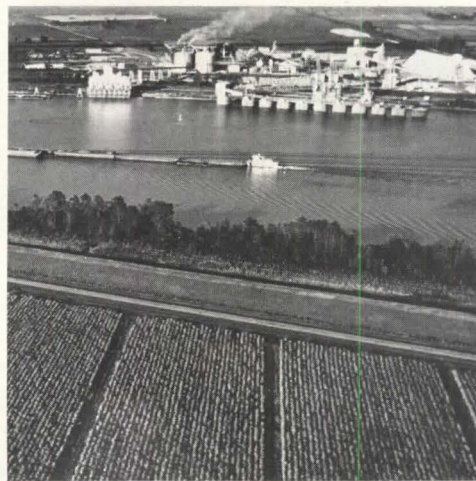
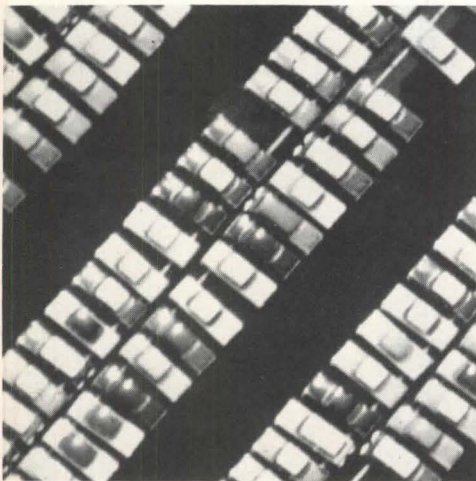
A Question of Land Tenure: Our system of land tenure is inherited from an earlier agrarian society and is a cornerstone of our total land-use structure. At the root of our private enterprise lies this system which respects the right of the landowner to use and misuse his own property, regardless of the effect of that action of the public interest. Whether a basic questioning of the rights, privileges and practices of our private enterprise system calls for the nationalization of our natural resources is the cause of sharp disagreement, with bitterness and passion replacing reasonable debate. Unresolved confrontations exist today in most areas of the country. Examples include the Hudson River case involving New York's Consolidated Edison and the Storm King Highway; the steel industry versus preservation of the Indiana

dunes; the pollution of Lake Tahoe; the Redwood National Park controversy involving private timber interests, the Sierra Club, Save-the-Redwoods League versus the State of California and the federal government; the defense of San Francisco Bay against attempts to fill in its perimeter. This last case offers an example where both points of view have a solid basis for a last-stand defense of their positions. Those who own the land, such as the salt flats under water, might appear to have a legal right to fill it. Those who defend the integrity of the existing shoreline can prove that the bay is the most important physical asset for the well-being of the total region and that to lose it would destroy the economic structure as well as undermine the health and welfare of its population.

A corollary to the problem of curtailing private property rights in the public interest is the root question of the economic impact on the efforts of private enterprise to exploit a natural resource and, in the process, to destroy the environment. Is not the long-term impact of the economic welfare of a given area immeasurably better when restraint and foresight are practiced with its resources rather than the short-term conversion of the resource into inflation-inclined dollars? Doesn't the simplest accounting clearly show that the destroyed environment, plundered of its natural resources, becomes a public liability and its population a public charge?

A Natural Resources Bank: Based on an exhaustive study,

Mr. Owings, a founding member of Skidmore, Owings & Merrill (1936) who lives in Big Sur, California, is chairman of the President's Temporary Commission on Pennsylvania Avenue and a member of the National Advisory Board to the Secretary of the Interior.



an inventory of ecological regions incorporating quantitative and qualitative interrelationships of every type of land, body of water, mineral, flora and fauna should be established. To augment this, Congress should authorize a national resources bureau under the executive branch of the federal government and endow it with the type of authority and prestige enjoyed by the Bureau of the Budget. It would be the function of this bureau to protect and control the disposition and use of the natural resources encompassed under the authority of the national resources bank.

On an isolated bank of the Nile, the great temple of Abu Simbel was carved from living rock some 3,000 years ago. Recent flooding from the Aswan Dam would have submerged its magnificent colossal statues if the temple had not been moved to a higher site by an international team of engineers, archeologists and architects. Expensive though the task has been, the temple itself is priceless even though it was dedicated to a now dead religion, is without any present practical function and certainly provides no return in capital gain. In addition, its isolation will only allow it to be viewed by comparatively few people. In spite of this "uselessness," it was moved with the skill, care and precision of a surgical operation by Swedes, Italians, Germans and Americans, an undertaking costing over \$30 million. The funds for this operation were raised through an international subscription.

Such an act of faith in the rightness of beauty as a supreme motivating power, such willingness to come together and to contribute talent and energy without concern for immediate profit — these are precisely the spurs to cooperative action and inspired "play" that we should offer our youth.

No particular discipline or group of disciplines is exclusively

superior for the work at hand. All of our knowledge and functions have gone into making the environment what it is today, good and bad. The same totality can change it. Some areas of study and effort, especially those having to do with ecology, deserve a higher priority, but the student who develops a high sense of literary style or an expertise in philosophy or a solid grounding in economics and history, a training in the arts or a knowledge of the natural sciences, can effectively help in bringing about this change, just as can the anthropologist, the chemist or the transportation specialist. We can offer them plenty of action.

In his faith in himself and something greater than himself, man has been capable of beautiful works, massive and delicate. In our time it appears that man has again reached for the wrong fruit and is heading for a second fall, this time from the splendor of his own humanity. If that is the way he is heading, he must produce a miracle that will turn him toward a rebirth of that splendor.

If we can come together to free ourselves for a world in which there will be room not only for vibrant cities but also for rolling hills, dense green forests and bright seas beyond; and if, at peace with ourselves and each other, we can savor the substances of nature as wonders and not spoils of combat, then that miracle will occur and the life-giving esthetic be realized. □

From the book *The American Aesthetic*
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Preceding spread: San Francisco overlooking Marin County; across page: new cars, Detroit; river tow; cloverleaf; Palo Alto housing; Los Angeles sprawl; below: wilderness preserve in the Adirondacks.



Luckman Tells All About Ogden

It has been a little more than two years since the architectural firm of Charles Luckman Associates was acquired by Ogden Corporation, a move that raised a good many eyebrows — along with some pertinent questions — in professional circles. To get to the heart of the Ogden-CLA relationship now that it has had some experience behind it, the AIA JOURNAL posed 13 questions to Charles Luckman, FAIA, whose answers have been edited only for style and, in a few instances, for length.

What are the principal activities of 1) the Ogden Corporation; 2) the Ogden Development Corporation?

1. Ogden Corporation, with headquarters in New York City, is a diversified operating company involved in five major capability areas: real estate development, transportation, foods, metals and leisure.

Ogden Transportation offers wide-ranging services in the general areas of marine construction; the planning, engineering and operation of systems; terminals to handle and distribute bulk materials; and the operation of an ocean shipping fleet.

Ogden Foods has two main operating groups. First, its food products group which includes a canner of fruits and vegetables, a tomato producer for the fresh food market and a Latin American meat-packing operation. Second, the food services groups which encompass all types of "away-from-home" feeding from restaurant chains in New York, Cleveland and San Francisco to in-flight airline catering services.

Ogden Metals provides a wide spectrum of products and services. Products include the processing of ferrous and non-ferrous secondary metals, smelting and refining of various non-ferrous alloys, the manufacture of specialized railroad freight cars and the production of cabinets and hardware for computer, office equipment, electronics, banking and food service industries.

Ogden Leisure activities are its newest capability. They include five race track properties, one of which includes a motel, mobile home site, executive golf course and private bath and tennis clubs.

2. Ogden Development Corporation, with offices in Los Angeles, Chicago and New York, is engaged in the development of large-scale, high quality, commercial and residential real estate projects.

Through this real estate capability, Ogden Corporation believes it can most effectively serve the need for a reordering of our urban dimensions. Through Ogden Development, it is realizing this goal by taking assemblages of land, properly fashioning them to satisfy community requirements, and designing the merging facilities to the most demanding quality, functional and economic standards.

In order to implement this philosophy, Ogden Development has significantly departed from traditional real estate development practices. Its new approach emphasizes a total "in-house" competence in site acquisition, economic and sociological research; planning, architecture, engineering; equity and permanent financing; management and supervision of construction, leasing and building management.

Currently, Ogden Development has a number of significant projects underway that attest to its "total" capabilities. The Broadway Plaza in Los Angeles is uniquely representative of the firm's attempt to solve critical downtown real estate development problems. Urban central business districts have, in the last decade, suffered major losses resulting from the great exodus of customers, workers and residents to the suburbs. Federally financed redevelopment projects have given minor relief to the problem, but frequently they stand for many years as vast tracts of vacant land.

Broadway Plaza, on the other hand, demonstrates a way that private developers can solve the problem of deteriorating central cities on a scale and basis that is economically feasible. Ogden Development and Broadway-Hale Stores, Inc., are jointly developing a downtown block of prime commercial value that will include a new Broadway store, the first full-service department store to be built downtown in a major US city during the last quarter century; a 500-room hotel, a 32-story office building; parking for more than 1,800 cars; and a beautifully landscaped, 250,000-square-foot, airconditioned shopping mall that has as its focal point a large covered plaza. The various functions and facilities in the project are carefully interrelated above and below ground in a uniquely urban megastructure that Ogden Development believes will lead to similar complexes in the downtown areas of many other cities.

In Chicago, Ogden Development has agreed with Illinois Central Industries to jointly develop 12 acres of Illinois Central Railroad air and property rights near the Loop and adjacent to Burnham's extraordinary lakeshore parks. This joint effort is the first phase of a larger program now under study by Ogden Development and several prominent Chicago firms and businessmen to ultimately develop 104 acres of railroad air rights.

It is our opportunity within the feasibility study to develop urban design guidelines for the orderly, esthetic and economically sound development of a key site in the center of a major US city, while protecting and enhancing a national environmental asset in the form of Lake Michigan and its shoreline. Ogden Development and CLA are working closely with the Chicago City Planning Department to carry out this plan.

Ogden Development is also co-venturer with the State National Bank of El Paso in the development of a new highrise headquarters, commercial bank and ancillary facilities in El Paso that will become a new regional business-financial center for southwest Texas and the city's tallest building.

How did your firm become affiliated with Ogden in the first place?

For many years, my associates and I, like the rest of our profession, have been concerned with the diminishing influence of the architect in determining the final outcome of complex

building projects. During this period, CLA developed a complete program of comprehensive services. But we found that even this was not enough to enable the architect to assume a position within the building team that would allow him to assert substantial influence. We concluded that the greatest influence would be exercised by that member of the team who developed the management capability, independence of mind, creative imagination and economic knowhow to solve the problems created by the increasing complexities of building projects. If the architect wanted to be such a leader, we felt he would have to devise unique ways to assimilate and operate these capabilities.

In the fall of 1967, we were unexpectedly given an opportunity to test one possible solution to this dilemma. My son Jim and I had been invited to the executive offices of the Ogden Corporation. In typical architect fashion, we assembled our various materials which we hoped would convince Ralph Ablon, the chairman of the board, that we were the best architects for whatever building project he had in mind at the moment. It was with considerable amazement that we learned that the project he had in mind was the acquisition of our firm. He wanted CLA to be the nucleus for a total real estate development capability that would develop properties with demonstrated management experience and with an emphasis on the quality of design. He said he had, during the last 10 years, read comments from the architectural profession which generally said "an architect should be the leader of the team," and that he was prepared to agree, i.e., he wanted me to serve as president of the real estate development company!

When I subsequently discussed the proposal with my associates, this opportunity to be of help to our profession as well as to ourselves was an important influence on our decision. The one remaining question was how we could control the "quality" of our real estate development projects. The lawyers questioned the ability to legally define the interpretation of "quality." Mr. Ablon made it very simple. The contract would state, "Ogden Development would only develop quality projects. Charles Luckman would determine what was 'quality.'" With that simple credo we established the Ogden Development Corporation, with our firm as an affiliate.

Explain the corporate relationship between 1) Charles Luckman Associates and Ogden Development; 2) CLA and the parent company.

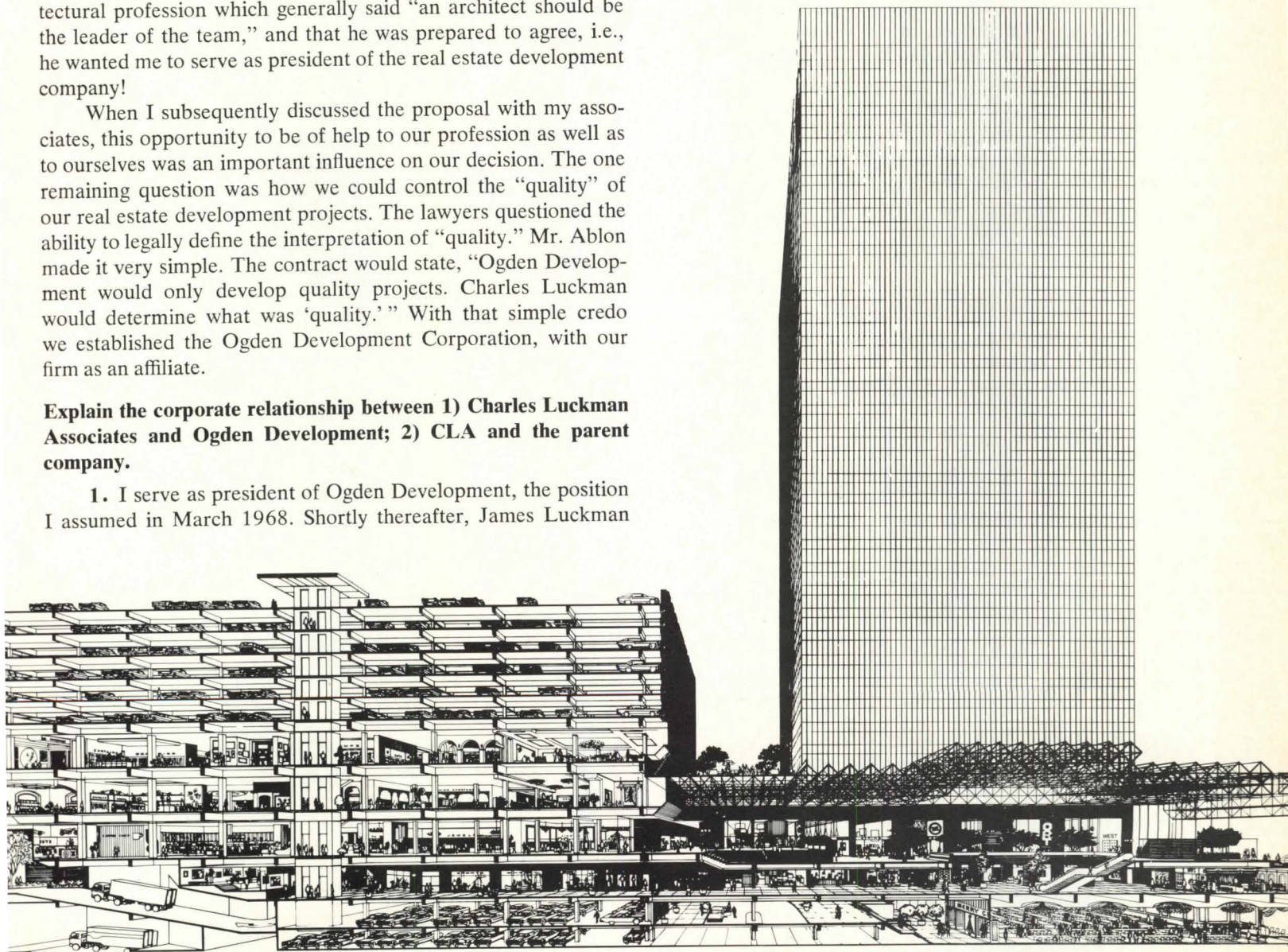
1. I serve as president of Ogden Development, the position I assumed in March 1968. Shortly thereafter, James Luckman

became president of CLA, and in that position is responsible for the day-to-day management of the architectural firm's operations. In order to further assure the proper interrelationship of the architectural profession and that of real estate development, Jim serves on the Ogden Development board of directors, and I serve as chairman of the board of CLA.

As a result, the services offered by Ogden Development and CLA are separate functionally, as well as in their fiscal and operational management. On the other hand, the combination of a development company and of an architectural affiliate offers a totality of services that represent a major departure from traditional real estate development companies. The services emphasize a total competence in site acquisition, economic and sociological research, planning, architecture, engineering, equity and permanent financing, management and supervision of construction, leasing and building management.

CLA's specific contribution to this collection of services includes research, planning, architecture, engineering, space planning and interior design services.

Basically, the Ogden Development-CLA corporate relationships achieve two important objectives: a) They preserve the autonomy of CLA's fiscal and operational management so it may continue on its own to build a diverse private practice based on



Broadway Plaza is planned as a \$70 million, self-contained commercial center covering an entire block in downtown Los Angeles.

its proven success as a planning, architectural and engineering firm; b) The structure enhances CLA's practice by making available additional services from within the Ogden Development staff. The integrity of these professional services is protected by a corporate decision-making structure that includes principals of the architectural firm at top positions so that architectural and design considerations are not diluted.

2. CLA's relationship to Ogden Corporation is through Ogden Development. In addition, I serve as a member of the parent Ogden Corporation board of directors and its finance committee. CLA submits periodic financial reports to Ogden Development which in turn submits the usual financial statements to Ogden Corporation. In addition, all Ogden Development projects must ultimately be presented to the parent company's board of directors for approval of the projects' financial commitments.

What are some of the mutual benefits which have accrued to the parties involved?

The mutual benefits of the Ogden Development-CLA affiliation are essentially these:

- A real ability for Ogden Development to provide its clients with the *total* range of services they need to complete their building projects.
- Proper control of Ogden Development services by having within the firm a staff with the knowledge and experience to effectively supervise the delivery of these services from both in-house personnel, and consultants hired and managed by the Ogden Development staff.
- A more experienced architectural affiliate, resulting from their intimate knowledge of the development process gained through their day-to-day relationships with Ogden Development.
- An increased ability by CLA to develop better architectural solutions and to sell these solutions to cost-conscious clients through this enhanced experience.
- Greater financial resources through the parent Ogden Corporation which provide CLA and Ogden Development with an opportunity to conduct essential research and study programs of a nature which are generally too costly for architectural firms to undertake by themselves.
- A capability to provide far better health insurance programs, profit sharing and other employee benefits through the relationship with the parent company.
- A more stable workload created by the large Ogden Development projects that enable both Ogden Development and CLA to offer their respective employees more job security.

In further response to this question, let me cite one current example: the Ogden Student Living Center. By 1976, more than 9 million students will be enrolled on college campuses throughout the United States. Very little is being done, however, about an emerging crisis in the planning, design, financing, and management of college housing. Most college housing, for example, is designed without any consideration of current preferences of the student body.

Ogden Development provided CLA with the necessary appropriation to do a full year's research program into the total problems of college housing. As a result, CLA designed a prototype student living center that combines a design based on extensive research in college students' own preferences in housing, with a unique financing, management and construction program provided by the developer. Ogden Development was able to recruit a management team during this research phase that was very knowledgeable about student housing problems and solutions, and capable of implementing the program devel-

oped by the research. In other words, the architect-developer team has allowed us to provide an imaginative solution to both the design and development problems of one of the major crises facing the country today. Together, Ogden Development and CLA defined the problem; together, they developed the solution. The experience has also shown that a similar approach to low cost housing might very well be successful.

What changes have taken place in Charles Luckman Associates since the merger, and do you foresee any more in the immediate future?

There have been no changes in CLA's operations since the merger except those that can be attributed to management's normal ongoing reassessment and evaluation of our professional capabilities. Ogden Corporation bought a good firm; therefore, we don't expect major changes in the future either. Such changes would defeat the purpose of the merger.

On the other hand, CLA is not a *static* firm. We are continuing to carefully examine our professional services. For example, we have recently expanded our urban planning capability. Sound planning before architectural solutions are proposed and considered is increasingly more important as projects grow in complexity and scope.

Planning is not the only area of change. Other areas are equally important. The sciences of economics, sociology and ecology have real meaning for our profession. The technologies developed as the result of research in the physical, biological and behavioral sciences must be applied to our efforts.

Due to the complex needs of our clients, we have greatly expanded our interior design department to provide more complete services in space planning, programming and related services including graphics.

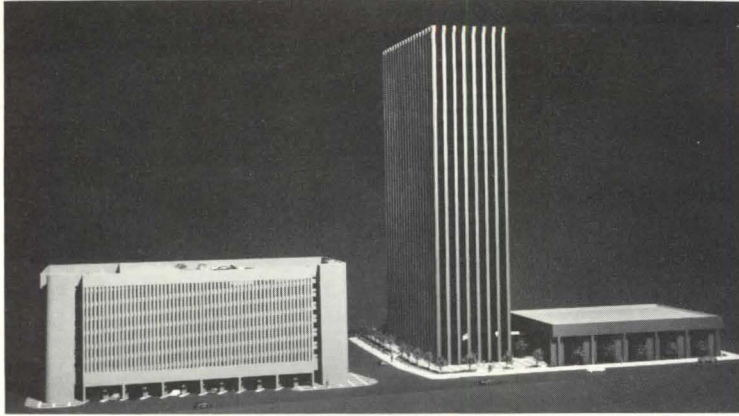
While we are convinced that much of the research in computerization completed to date is of little use to our profession, we cannot afford to sit back and let the computer experts come to us. We must begin to integrate the computer with our current operations. This year we are experimenting with the computerized specifications of The American Institute of Architects, and we will increase the use of the computer as an internal management tool for scheduling and control of work currently in the office. We are also studying the eventual possibility of computerizing the process of preparing working drawings.

In order to make the firm more responsive to the needs of our clients, we have developed a corps of executive architects who are the clients' liaison men and who are responsible to the client for the successful completion of his project. This category of "executive architect" carries the full support of our management so that decisions can be made on the spot. They thus combine the authority of a "partner" with the technical knowledge of a "project manager" and in the process streamline the functioning of the project team.

Most of these executive architects have grown up with CLA. Its history has been that of a firm that provides the many specialists and generalists involved in our diverse practice with an opportunity to advance and develop. This company philosophy remains unchanged with our new affiliation. In fact, it is underscored.

Does your firm's expansion into such areas as financing, leasing and facility management affect the usual methods of architectural practice?

CLA has not expanded into these areas at all. These are functions of Ogden Development, and the architectural firm has



State National Bank Plaza will dominate El Paso's skyline.

nothing to do with them, except on those projects where Ogden Development is a client of CLA. In these cases, the architectural firm's total planning capability may favorably affect the result. This situation is typical of the traditional client-architect relationship we maintain.

What percentage of your firm's business is done with Ogden?

Currently, 15 percent of CLA's workload is composed of Ogden Development projects. In addition, it is very gratifying to us that the remaining 85 percent total fee volume from private clients is steadily increasing. We have every reason to expect this to continue.

Do you plan to get into the construction phase of projects? If so, how do you see your role? If not, explain why you made your decision.

On all of its own projects, Ogden Development intends to use general contractors under its direction and supervision. For this purpose it has formed a full construction management and supervision department which will work with the top contractors in all sections of the country.

CLA will continue to perform the traditional architectural supervision services such as periodic inspections, selections of color and materials, shop drawings, etc.

Over the years it has been a firm principle of mine that in-depth construction management and supervision is essential to preserve the integrity of the design concepts.

What is your policy with respect to situations which involve Ogden subsidiaries?

Company policy and our professional integrity and reputation require that we deal at arm's length with Ogden subsidiaries under the terms and conditions which would apply in dealings between unaffiliated parties. Additionally, it is CLA's longtime and continued policy to write all specifications to serve our client's best interests, and all bids from subcontractors are evaluated on that basis only.

Explain how Ogden structures its "deals so that architectural fees and development fees are payable in the early stages of a project," as Ogden Development's vice president recently said.

Ogden Development and CLA contract with clients for the payment of fees in specific percentages at various stages of the project. In many cases, both the percentage of the total fee payable, and the specific stage of the project where this portion of the fee is due are different and somewhat earlier than those fee payment formulas used by many architectural firms.

I might also add that Ogden Development and CLA nego-

tiate the amount of the architectural fees just as strenuously as all of our private client-architect negotiations are conducted. Apparently I have, over the years, trained a number of hard bargainers within the CLA organization, which has not made it any easier for the Ogden Development negotiators!

When the same official remarked that Ogden needs people who can "guide the architects and engineers in the design of improvements," did he mean to imply that Ogden will direct your firm in the area of professional responsibility?

The statement refers only to the fact that Ogden Development needs staff members who can guide the total development of its projects. These project managers, some of whom are registered architects, deal with the CLA project people in the usual client representative-architect manner, thereby preserving the professional integrity of both organizations.

Does the Ogden-Luckman arrangement indicate the way architectural firms will practice in the future?

I believe it does. If the architect is serious about increasing his influence, qualifying for a position of leadership and achieving more control of physical environment, he must be able to provide and manage all of those services essential to complete a given building project. At the same time, the architect must have the intellectual freedom to develop the design concepts and express the esthetic value judgments that are the guts of our profession. The Ogden Development-CLA arrangement is an excellent way to achieve this two-part goal.

On the other hand, I am well aware that the specific action we have taken will not work for every architectural firm. Many architects will continue to emphasize design expertise as their sole contribution to real estate development. These individuals may believe they should not be intimately concerned with the economic aspects of real estate development. They may seek collaboration with developers they feel are sympathetic to this concept of the overriding importance of design. This may possibly be another way to deal with the future.

But even if architects perform in this limited capacity in an outstanding manner, they will never achieve the influence with their clients that will allow them to exert complete esthetic control of a given project or make those fundamental decisions critical to a project's implementation. Because these are properly the prerogative of the person who assumes the financial risk, I feel our "combined concept" is the way of the future.

Summing up, do you have any comments to make concerning those critics who maintain your firm is engaged in an "unprofessional" mode of operation?

To me the term "professionalism" means the providing of services in adherence with the highest technical and ethical standards. If an architect is worried about losing his professionalism in an arrangement like ours with Ogden, he shows a lack of confidence in his own competence and ability to live up to his ethical standards, and that means he probably wasn't adequately professional in the first place.

In the Ogden Development-CLA affiliation, the opposite has been our experience. Our staff members have been given the opportunity to increase their knowledge and technical competence. Thus the firm is providing both Ogden and its private clients with new and expanded services based on greater expertise. This, to me, means that as architects we have enhanced our professionalism. Fortunately, we are being given increased opportunities to prove it!

ROBERT E. KOEHLER

Our Architecture Is Too Small

by HARRY A. GOLEMON, AIA

“Architecture,” as used here, is the art of creating a comprehensive fourth-dimensional environment that is beautiful without pretense, functionally and technically competent and financially feasible. The fourth dimension is the spirit of design. “Small” is scope of thought and involvement, not of project.

The architect was once the master planner, the master of the building arts. Today, he is generally considered by society to be only one of many specialists involved in planning our environment. He either “designs buildings” or “draws plans for buildings,” depending to whom one talks. Too rarely is he considered the master planner or the prime mover, even on the community level. Too rarely is the architect involved or present when the real and profound decisions are being made that shape our environment. For example, where is the architect in the front-end decision-making process of the large- and small-scale land developers? And where is the architect in the decision-making process of our political entities: federal, state and municipal? These two questions could be repeated endlessly when different corporate entities are considered.

Entrepreneurs, boards of directors and committees make decisions in the United States every year that result in the expenditure of billions of dollars for capital improvements that literally shape our environment — without the consultation or advice of an architect. The architect is commissioned after the important decisions are made regarding where and how to spend the money and after the projects are turned over to the subordinates to execute. The architect may never meet the real decision makers during his relationship with such a client. He has either never obtained or has lost by default his position in the decision making.

For years our profession has lost the talents of competent and highly qualified persons because they could not pass Design 3, 4 or 5. For years the profession has needed the talents of design critics, managers, business minds, technical experts, construction administrators, all of whom are not necessarily designers. The point is this: All the aforementioned talents are needed in the profession in a team effort to create and implement architecture. Generally, the architectural education system of the past has not been structured flexibly enough to recognize other than

design talent and to allow for other specialist talent. The result has been loss of needed specialists’ talents and graduation of mediocre designers. If the designers were considered one of several talents to be educated in architectural education, there would be fewer designers and their quality would be better. As a byproduct, the profession might have fewer frustrated designers and more happy architects.

The AIA Document B131 is an excellent document, but it is also a document that has conditioned the architect’s “scope of thought” and “scope of involvement.” In a certain sense, it has conditioned the client’s idea of the services and capabilities of the architect. For example, let us discuss briefly Additional Services, paragraphs 1.3.1 (providing special analyses of the owner’s needs and programming the requirements of the project); 1.3.2 (providing financial feasibility or other special studies); 1.3.8 (providing detailed estimates of construction costs). The question is not whether the architect deserves extra compensation for these services, because he does, but whether the services should be considered additional services at all. I contend that these and possibly others should be part of the comprehensive services of the architect.

Presently, there is a paradox in the profession’s structure of services. The architect, through basic service contractual obligations, is required to submit probable construction costs at each phase of project development. Yet, in many cases, the program of the owner and the financial feasibility of the project is studied, reviewed and documented before the architect is commissioned. The programmer is likely to be inexperienced in reconciling program to construction costs, and the financial feasibility specialist is usually real estate or mortgage oriented.

Yet from two-thirds to three-quarters of the financial feasibility consists of probable construction costs. The paradox is that the architect is responsible either contractually or morally for spending the client’s money wisely and efficiently to implement the design and construction of a program and a financial feasibility that were composed by two different persons other than the architect, and that may not be reconciled when received by the architect.

The contention here is not that the architect should be “all things to all people” per se, but that he should provide and coordinate these directly related services under his contract through team affiliations or through his own staff members. Surprisingly, he may find that all these services can be provided for the client more economically in one package than on a fragmented basis.

The results of past nationwide discussions and studies of the Standards of Professional Practice of The American Institute of Architects led to a committee study and a recommendation at the 1969 convention for a new set of ethical standards, which the profession needs. The contents of the AIA Document J330, revised May 1967, is confusing to the progressive architect and does not present guidelines for the practitioners that are understandable by today’s pragmatic business client. Business practices and ethical standards have been mixed together in one document that becomes unclear and even confusing when meeting the challenges of day-to-day situations. The present standards of practice certainly are considered by many to limit the architect’s scope of involvement in serving society. We need ethical standards that limit their guidelines to ethics; that are well written, concise and profound — profound enough to maintain architecture as a profession, yet flexible enough to allow architects to meet challenging situations that require new and creative

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approaches, so long as the practitioner does not compromise conflicts of interest and the best interests of his client or employer.

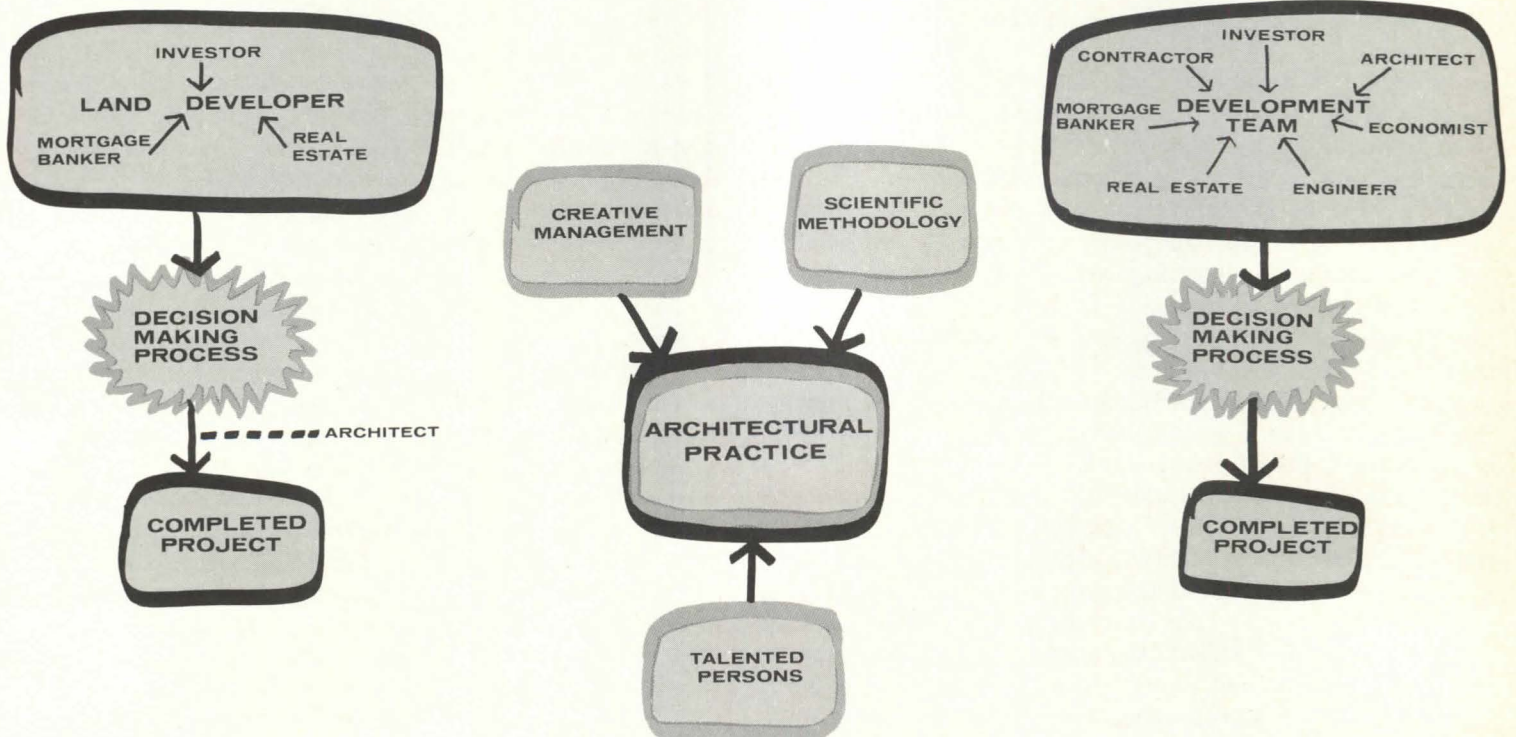
Much was accomplished in the middle and late 1960s to prepare the profession for what has been called the challenges of the '70s. The '60s were the years of research, studies, reports, debates, government involvement and soul searching. Three AIA-sponsored studies and reports of significance were *Emerging Techniques of Architectural Practice*, 1966, directed by C. Herbert Wheeler, AIA, associate professor, Pennsylvania State University; *A Study of Education for Environmental Design*, 1967, co-directed by Robert L. Geddes, FAIA, and Bernard P. Spring, AIA, Princeton University; and *The Economics of Architectural Practice*, 1968, prepared by Case & Company, Inc.

Emerging Techniques for the first time combined into one publication comprehensive descriptions of techniques of analysis, systems computers and associated activities used by progressive architectural firms throughout the United States. Recognizing the importance of this study and using it as a springboard, the Architectural Engineering Department of Penn State has sponsored conferences and symposiums on architectural practice since 1967. Invited participants in the conference have numbered from 35 to 170, depending on the conference subject and type. The results from these conferences will be significant and far-reaching in the '70s for many architectural practices.

Architectural education needs controversy periodically. The Princeton Report furnished just that and the profession will benefit. After architectural education broke out of the Beaux Arts tradition, it became complacent. In the '50s and early '60s, students hung deans in effigy regularly, but little changed. Budding architects generally received a competent education in design, office practice and architectural history. Gropius refused

to teach the history of architecture at Harvard, deans for architectural schools were scarce, university administrations and boards did not raise the budgets for architectural schools until the National Architectural Accrediting Board placed the schools on probation, and some said that if you can't make a go of it in practice, you can get a job teaching. In spite of it all, a competent crop of American architects was born, but their educational background and training left them with blind spots in meeting the challenges and threats of the tumultuous '60s, such as the package deal, the government contract, the profit squeeze and advocacy involvement in society. The Princeton Report stirred the educational pot, and hopefully that stirring will result in flexible educational programs that will meet the needs of the individual students, the architectural practices and society. Hopefully too, the AIA and the NAAB will encourage experimental and flexible curriculums and programs in architectural education.

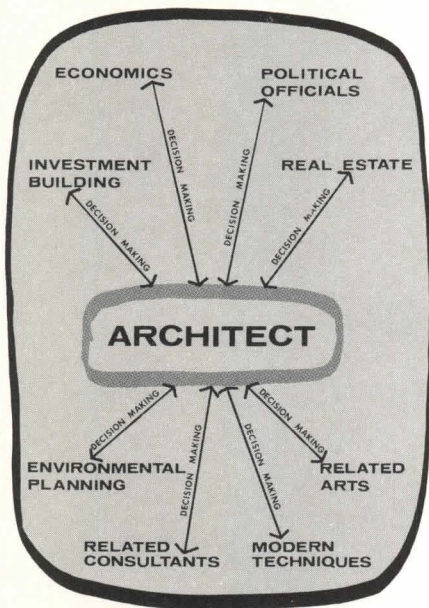
The Economics of Architectural Practice, better known as the Case Study, was probably the most timely report ever sponsored by the AIA. Many firms can credit their very existence today to this report, which validated two well-worn phrases of the profession, i.e., "architects are poor businessmen" and "architects don't receive enough financial compensation for their services." These two phrases form a destructive cycle. The businessmen of yesterday and today are not inclined to pay the architect more financial compensation until the architect proves himself to be a better businessman. The Case Study told it to the profession as it was, and the business status of the profession was in a predicament. Although planning is a byword of the profession, profit planning was not known or used in most architectural practices. The report is an excellent reference base for those architectural practices seriously interested in a business diagnosis as a pre-



requisite to business therapy. An increase in financial compensation to the architect is already a result of the study in many regions of the US.

In addition to the committee that produced the proposed ethical standards, the AIA Committee on the Future of the Profession produced a report that is to be published in book form. This will be a revelation to many architects who have thought little about the future. The November 1969 AIA JOURNAL contained highlights under the title "What the Future Offers — and Demands," which quotes the report: "Depending upon one's point of view, the future may be termed evolving, expanding and improving, or, by contrast, fragmenting, exploding and deteriorating; but regardless of the vantage point, the profession will be different." Change in the profession in the past has been evolutionary; change in the future could very well be revolutionary.

As already stated, the '60s were the years of research, studies, reports and debates. If architecture is to survive economically and as a profession, the '70s will be the years of decisions and implementation. Presently, in this respect, *our architecture*



is too small. An architectural practice with a philosophy that is broad in scope, innovative and flexible is needed by each progressive or would-be progressive firm. Though not necessarily applicable to any other firm, our firm's philosophy is, "We consider the practice of architecture to be the creation of fourth-dimensional art through the proper execution of creative management, scientific methodology and talented persons."

Many architects interested in expanding their scope of involvement today feel that this possibility is inherent only in the large firms. Charles Luckman's business transaction with the Ogden Development Corporation is discussed in the previous article. In Luckman's case, the move increased his firm's scope of involvement. Each firm, small or large, with the will to increase its scope can find the opportunity through such actions as acquisitions, mergers, associations, ventures, or through the team approach. The future practice of architecture will incorporate the latter on a broader scale than ever before. The team will be an affiliation of talents tailored to accomplish specific situation goals and/or overall goals of the architect. The team approach applies to small and large firms. The team itself is not limited to the traditional members of architects, engineers, landscape architects, interior designers, etc., but many consist of talents heretofore considered foreign. A land development team, for example,

not only combines the necessary talents to accomplish a goal but also includes a "scope of thought" that is total service oriented: location of client, location of land, land acquisition, definition of project type, economic feasibility and mortgageability, long-term and interim financing, construction cost control, design construction and even property management, to name a few services that might be performed by the team on which the architect will be a key decision maker.

Considering the scope of services within the team's capability, the talents available and considered (not necessarily in order of importance) for the team are the architect, engineer, real estate economist, contractor, mortgage banker, financial participant, attorney, leasing agent, public relations firm and certified property manager. Any member of the team who has the qualifications and time can head it as the developer. In situations that include specialized projects, such as medical facilities and federal government participating projects, additional special consultants may be needed to augment the team.

Numerous architects have recently shown a keen interest in participating in the front-end decision making of investment-type projects. Many believe that the profession has much to offer to the investment building team. Instead of becoming involved for the purpose of designing facades and sketching details after all economic and design parameters have been established by the developer, the architect can and should become involved as a key contributor and possible participant in the investment building team. The AIA Committee on Professional Consultants has initiated a learning and awareness program in investment building for the membership (see "A Piece of the Action" in the AIA JOURNAL, Feb. '70).

Much has been said and written about the future challenges to the architectural profession including larger and more complex commercial projects, larger housing projects with emphasis on apartment living, more new category projects such as those related to the air transport and aerospace industries, new building methods, construction management services, larger architectural firms, etc.

I believe that there will continue to be excellent and progressive small, medium and large architectural firms and that the size will have little to do with the success of a firm. However, there are certain demands that economics of practice and clients will make of all progressive firms, i.e., economic responsibility, management and design excellence. Only a few years ago it was thought that design excellence and good business practices in an architectural firm were not compatible. Such statements as "They create excellent design but they are poor businessmen" and vice versa were heard often. Either condition is no longer accepted. The architect and the client are interested in design excellence and management excellence with economic responsibility.

That there will be change in the profession in the '70s and beyond has been well established. Architects who visualize, organize and prepare for change will reap the benefits. Whether small, large or in-between, preparation for a changing practice is established by a sensitive, compatible management design team that takes advantage of affiliated talents when needed to accomplish the firm's goals and to serve the client's needs.

Presently, our architecture is too small in scope of thought and scope of involvement to meet the future head on. It need not be! It will not be when the individual architect decides to become involved in the decision-making process. Once involved, he must speak his convictions with logic, clarity and as a statesman; and he must, when necessary, use the political arena as his rostrum. Then our architecture will no longer be too small. □

Registration Geared to Reality

by DEAN L. GUSTAVSON, FAIA

Having a much broader range of interest than that of students only a few years ago and with a new level of social consciousness, today's students and graduates are often bored with traditional architectural work. What can be done to encourage them to stay with it? The NCARB has several specific proposals.

The traditional way most of us went through college, the subject matter we studied and the kind of experience we had is much different from that of most young people in architecture today. Today's graduates seem less content to sit as draftsmen in architectural offices doing repetitive tasks which are most often removed from a real involvement in practice. Increasingly, they desire to work on projects, even at a scale of the city, that reflect or come to grips with the environmental or social problems of our times.

The young have also come to believe, along with many of us, that no matter how finely an individual building might be designed, it has relatively little importance to the nonphysical determinants of the environment such as government policy or programs — health programs, economic policies, social programs, etc. We can therefore predict that they will go to work in greater numbers for planning commissions, governmental organizations (both federal and state), industry involved in designing building programs and for architectural offices engaged in environmental work.

To prevent increasing numbers of architectural graduates from leaving the profession and to encourage them to accept positions of influence among the many becoming available, what can the profession, the National Council of Architectural Registration Boards and the state boards do to help them turn back to the profession or to find new ways to represent architecture as a profession?

To find a solution to this question, NCARB began a study to re-evaluate its procedures in 1966 with the objective of

streamlining the processes for obtaining national certification. It also wanted a good look at the spectrum of the professional life of an architect from the start of his education through to practice.

The study began in earnest in the fall of 1967. It was undertaken by a Board of Directors' Committee and four consultants.* A report of that year's work was made to the NCARB annual meeting and published later for review by the profession.

The report reviewed the general definitions of architecture and the areas of expertise in which an architect is qualified to make judgments, ideas of what the future will bring to architectural practice, discussed the scale at which practice is evolving, examined the broadened scope of practice through use of multidiscipline and team approaches, the effects of computers on practice, etc. These many areas of study were then related as to what significance they have for education, internship (experience), examinations and registration.

As a result of the studies the state registration boards authorized and requested NCARB to continue the review and make proposals to the 1969 NCARB annual meeting for action or implementation. Reporting for the NCARB board of directors, I presented the results of a year's studies as developed by some 40 architects and educators representing a broad viewpoint of the profession.

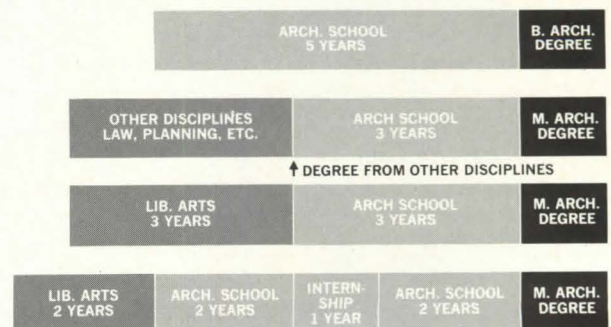
Because this was a fundamental review of the whole process of education, experience and examinations, we believed it important not just to alter some of our registration processes for the sake of altering them but rather to decide on the ways in which the profession should educate, what kind of experience to encourage and the content of our examinations — or if indeed we needed examinations at all. As a caution we reminded ourselves to avoid the tendency to measure others by our own ideas of how education, experience and examinations ought to be.

The responsibility of the architectural schools was also brought into a clearer focus by the studies. If the state registration boards and their representative, NCARB, alter the requirements for experience before a registration examination and if the examination itself is to be altered in length, emphasis and content, then this would require of the schools a greater responsibility to teach what the profession and NCARB want each architect to have in educational background and in the achievement of professional maturity. Having said this, we have also been concerned that such requirements must not be crippling to the

* Members of the committee: Dean L. Gustavson, FAIA, chairman; William J. Geddis, AIA; Charles P. Graves, AIA; consultants: Gerald M. McCue, FAIA; Herbert K. Gallagher, AIA; Phillip J. Daniel, AIA; the late Samuel B. Zisman, AIA.

ILLUSTRATION 1

VARIOUS EDUCATION MIXES



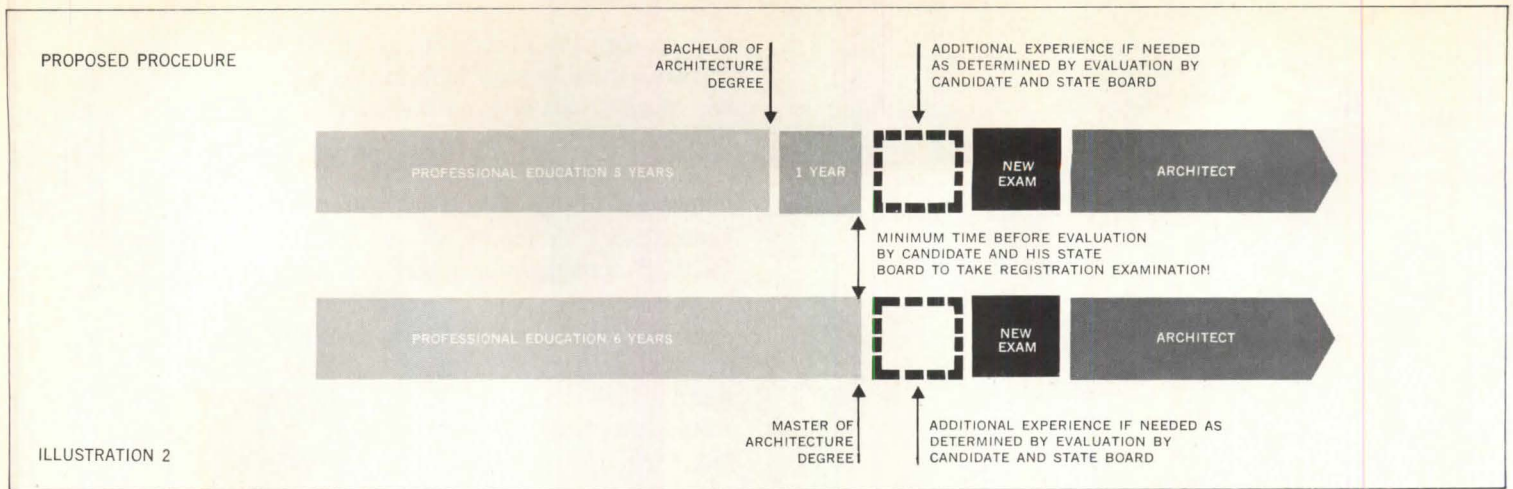


ILLUSTRATION 2

experimentation for and freedom of curriculum options for both school and student. (The presidents of the four architectural organizations — the AIA, NCARB, National Architectural Accrediting Board and the Association of Collegiate Schools of Architecture — have begun discussions regarding the results of the studies underway in NCARB.)

Some of the many different routes of education possible are shown in Illustration 1. In addition to the typical five-year route through the professional architectural school, we find other disciplines entering the profession after completion of their studies. Thus a law student with particular interest in the environment may enter architectural school for a three-year professional course and receive a Master of Architecture degree. Some schools require three years of liberal arts education before allowing admission to a three-year professional school. A Master of Architecture degree is given at completion. Another possibility is one for varying times spent in liberal arts education, professional school and a special period of experience under the direction of selected practitioners.

These examples are illustrative of different routes now being taken by students in architectural education. The important point here is the flexible approach to education which, with differing emphasis and concentration, brings the student to the same place — the award of a professional degree in architecture.

The question of the relevancy of the present experience required of the prospective architect has also been a part of the spectrum studies. Concern has been expressed that too many students after graduation from professional schools consider their education at an end. Instead of continuing to increase their knowledge, they allow a period of let-down to set in.

Similar concern was expressed that employer-architects tend to use the new architectural graduate in simple repetitive tasks, as a labor resource only, and give him little guidance or variety and exposure in his work. Thus the candidates coming before state registration boards for examinations are too often ill-prepared and discouraged by the years they have spent without possibilities of improving their professional abilities.

This situation, coupled with the desire of many graduates to seek new and different experiences — some outside the typical routine in an architect's office — has resulted in a proposal for a new experience program. This program, to be placed before the NCARB's annual meeting in Boston, will emphasize the judgment of a candidate's professional maturity and ability or readiness to be eligible to take the examination by a process of self-evaluation confirmed by his state board. The architectural graduate will be encouraged to seek varied kinds of employment in the architectural field; for instance with the government in the environmental fields, in urban design and planning offices, with

industry in architecturally related work, or regular work in an architect's office.

It will be proposed that specific limitations or rigid requirements of experience training be abolished in favor of a flexible approach for the architectural graduate in the time between graduation and the taking of an examination. Illustration 2 shows this new approach proposal.

A corollary to the flexible ways to acquire experience training is the belief that experience alone will no longer suffice for a profession that must serve a complex world. Our proposals will include an increased emphasis to be given to professional education as the method to or requirement for registration.

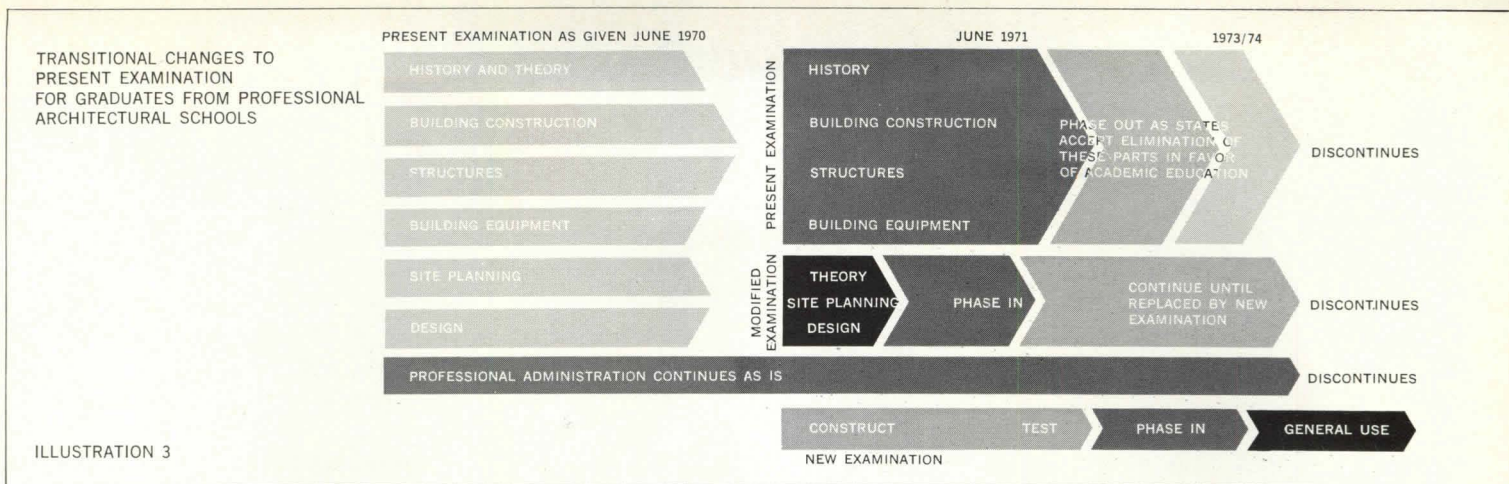
Studies of technicians' training and education have also been a part of our broad overview. In brief, I should say that we of NCARB view technicians' education as having increasing validity for those desiring to enter the field of architecture as nonprofessionals. These graduates of technical colleges will probably supply the labor resource for architectural offices in the future, whereas in the past architectural school graduates acted as draftsmen and technical laborers.

The review of whether to continue to give an examination and, if so, how it should be structured, was a very important part of the studies. Since 1966, all state registration boards have been giving the national four-day (36-hour) examination prepared by NCARB. This is conducted twice a year in most states and is given at similar times. Thus it makes no difference whether a candidate takes it in New York State or in Arizona; the examination is the same, machine graded by the Educational Testing Service at Princeton University. This uniformity has been a tremendous achievement, probably not paralleled by any other profession.

However great this achievement and its opportunities for state-to-state reciprocity, we of the state boards and NCARB raised serious questions concerning this examination and have debated its merits and deficiencies long and hard. We have believed that we needed to restudy the whole process for examination, particularly what type of examination we should give and want to give in order to satisfy legal and professional requirements and objectives.

We still give examinations in the long-standing divisions of subject matter, i.e., history, theory, structures, design, site planning, etc., even though these divisions do not respond wholly in content or emphasis to the needs of our profession now and our projections for the future. We recognize that candidates question the relevancy of the present subject matter in light of their

Mr. Gustavson, who practices in Salt Lake City, is president of the National Council of Architectural Registration Boards.



changing interests and the demands of society. This is occurring at a time when members of the state boards and the profession are re-examining changes in the profession.

In analyzing the present examination, we note that it is largely oriented to a technician's level of knowledge rather than to a tactician's ability to separate, organize and conceptualize. It emphasizes the technical knowledge of the candidate rather than the qualities that make him uniquely an architect. However, this emphasis on technical aspects has changed through transitional improvements to the examination, particularly in the last few years. Additionally, the present examination is exclusive in that every part must be passed by every person. By such a method, there is no way to recognize particular strengths of the candidate that may balance out weaknesses in some other area. Thus there is no way for the examiner to take a flexible approach by selecting areas of examination for the candidate or have him receive credit for academic achievement.

Following the presentation of these views to the 1969 NCARB annual meeting, the state registration boards asked that a new examination be developed and that, in 1970, we report to the NCARB membership what the outlines of that new examination might contain. A committee of outstanding professionals and consultants have been exploring a new examination procedure.*

This report states, "The current exam represents the culmination of developments to date. Given the present format, it has achieved near ultimate quality. The fact that the exam is uniform throughout all jurisdictions and that five-sevenths of the grading is mechanical is a tremendous achievement.

"But it still is not good enough, as attested to by the fact that many examinees feel that many parts of the exam (essentially all but professional administration) are "school-like" and could be more easily mastered near graduation; indeed, it is generally agreed that the school should provide a basic instruction and testify in the areas currently contained in the exam. The record shows that most graduates pass the exam within three tries."

The results of this committee's studies will be a recommendation for a new examination "to be of the problem-solving type and deal with a significant environmental issue with the examinee in the role of the architect as tactician or strategist. It will be a test of the candidates' ability to synthesize basic, general knowledge (not highly specialized) of environmental needs, human behavior, construction science, design and planning fundamentals, legal requirements, economics and management. Emphasis will be placed on understanding (overview) and judgment.

* E. G. Hamilton, FAIA, chairman; Charles P. Graves, AIA, vice chairman; William C. Muchow, FAIA; John M. Amundson, AIA; David G. Murray, FAIA; Ken G. Miller, AIA; and consultants Gerald M. McCue, FAIA; Dr. William J. Burke, vice president, Arizona State University; John Skilling, engineer; Carl M. Sapers, attorney; and John W. Lawrence, FAIA.

"The examination will be as short as feasible with the length to be determined in the next stage of this new examination development. It is recommended that it employ multiple choice questions that can be machine graded and will avoid academic retesting."

As long as it is necessary to admit nonprofessional graduates to the examination, a qualifying examination for these candidates, similar to the current one, will be required. (See earlier note for the recommendation to be made to limit this route to licensure.) Illustration 3 describes this new proposal and the phasing out of the present examination.

Should these recommendations be approved, it is foreseen that possibly within the next three years the new examination will be through the development and testing verification phase and that it will be available for use as the new national NCARB-state registration examination.

In addition to these overall studies as to how registration should change with a changing profession, other significant work by NCARB has been underway.

All procedures and forms have now been redefined and streamlined and the forms reissued with a new format. For practitioners with over 10 years as an architect there is now in use an abbreviated application form for NCARB National Certification. For the professional architectural graduate making applications to take the examination, a concurrent procedure is now in use by most states in which the candidate applies to his state of residency to take the examination and does so by beginning his NCARB record.

Through the use of these new forms and procedures and with the acceptance of the NCARB National Certificate by the states, reciprocity is rapidly becoming more and more automatic or procedural only. We now hope that true national reciprocity for architects will become a reality within a short time.

With this policy of facilitating reciprocity between states, NCARB has also begun discussions with several foreign countries to develop country-to-country reciprocity. In January of this year our first such agreement came into being with the United Kingdom (ARCUK, Architectural Registration Council of the United Kingdom). Recently discussions have been held, and in some cases preliminary agreements have been signed, with the professional societies or registration authorities of Mexico, Canada, New Zealand and Australia. We anticipate substantial progress to be made in the next few years in this area.

The policy that has guided these recent changes in NCARB and state board policies is our desire to serve the public and our profession through updated processes and procedures responsive to the rapid changes underway in society and architectural practice. □

Can the Small Office Survive?

The results of a survey conducted by the Northern California Chapter AIA afford some insights into the possibilities of the continued life and well-being of the small office.

Trends and tendencies of the large-scale urban society appear to lead toward the team approach in all professional activities. Every profession seems to be in a stage of evolution, moving from the so-called "cottage industry" phase into a more efficient and economical structure of group practice. This shift in organization apparently is an inevitable product of a social process which develops ever-expanding groups of human settlements. Many lament the passing of the family doctor in medicine, and just as many protest the replacement of the individual architectural practitioner with a design team.

It is interesting, however, that there are some indications of a reversal of the process that has made the mergers and conglomerates a mark of the American economy. A process of decentralization has been initiated in some quarters of the American society, but whether the propensity toward centralization can be reversed by means of a deliberate strategy is not yet determined. For decades now, all the forces of society have taken shape in large-scale systems which, in turn, have produced certain dislocations in the social process. Now there is a deliberate effort to reverse the flow of forces and to fragmentize the actions of society into smaller units. Perhaps this has meaning for the small office both in medicine and in architecture.

At any rate, a recent survey conducted by the Northern California Chapter AIA regarding the small architectural office is significant, providing insights into the practice of architecture as it responds to the shift in the dynamics of social development.

The chapter's September 1969 *Bulletin* gives a detailed report on 64 responses to a questionnaire mailed out with the August *Bulletin*. Earlier, in September 1968, the *Bulletin* published the report of the chapter's Task Force to Study Small Office Survival, and it was concluded at that time that the small office should indeed be a major chapter concern, citing its ability to provide quality professional services for projects not normally rendered by the large office; its unique role in furnishing post-graduate educational opportunities for the neophyte architect;

and its development of well-rounded practitioners who provide a rich source of manpower and leadership sorely needed by the profession.

Because a large proportion of its chapter membership is comprised of architects in small offices and because criticism is expressed that both The American Institute of Architects and the California Council AIA orient activities to larger offices, the task force considered it appropriate to direct more effort toward the small office. Consequently, in 1969, the chapter conducted its survey. A total of 75 replies were received, as reported in the October *Bulletin*, but the results of the survey are based upon 64 replies received in time for the September issue.

Sixty-one of the 64 respondents to the 1969 questionnaire believe that the small office is important, with 58 stating that the AIA should act to aid in its survival. Thirty respondents are single owners, 28 are partners, 2 are associates and 4 are employees. Forty-two work in an office where 1 to 5 persons are employed; 6 in offices of 5 to 10 persons; 6 in offices of 10 to 20 people; 8 in offices of 20 to 50 employees; and 2 in offices employing more than 50.

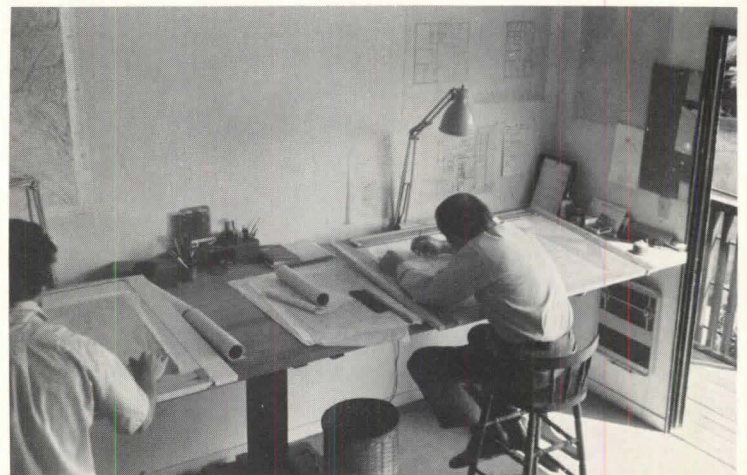
The results of the question as to how the AIA is able to aid the small office, with all blanks checked where applicable, are:

1. Referral from the AIA	46
2. Special public relations program	44
3. Advising on technical matters	24
4. Advising on office practice	37
5. Arranging exhibits	26
6. Secretarial pool	16
7. Specifications pool	26

The observation was made by one person that the AIA should provide aids to the small office as a direct service to its members and that members "should not be expected to contribute time on such clearly defined professional programs that could be created and carried out by staff of the Institute." To the question of whether a respondent himself would work on a number of committees, the results are:

1. Public relations Yes 20, No 8	4. Competitions Yes 11, No 12
2. Exhibits Yes 11, No 12	5. Small office task force Yes 27, No 10
3. Program for technical advisory [services] Yes 20, No 9	6. Computer Yes 17, No 12

Thirty-two respondents said they would be willing to pay extra for chapter sponsored computer aids for such things as information retrieval and specification writing, but 24 were unwilling to do so. Twenty-eight would work on setting up such a program; 22 would not.



Fifty-five respondents believe that a small office can do a better job on small projects than the large office, but there is diversity of opinion on what a small project really is and what a small office is. Nineteen define a small project as one under \$250,000; 23 term a job under \$100,000 as small; 14 claim it to be one under \$50,000; and 6 report it under \$25,000. A majority of 36 look upon a small office as one with fewer than 5 persons; 20 report it under 10 employees; and 7 put the figure at under 20 persons. The earlier report of the task force concluded that the small office is hard to define, varying from the lone practitioner to the three- or four-man office with several employees.

Fifty respondents believe the small office is not a thing of the past, but 9 are more pessimistic about it. Twenty-five state that small offices should combine to compete more effectively, but 33 respondents reject the idea. Parenthetically, it might be noted here that all figures do not always add up to a total of 64, and one assumes that some respondents did not always answer all the questions.

A majority of 34 believe the small office should develop a speciality, with 20 disapproving. Thirty-eight think the larger offices are accepting work that could be done better in the smaller offices, but 12 deny it. The task force's 1968 report identified four areas as determining the success or failure of the small office: talent excellence; access to the "market"; identity or recognition; and efficient operational methods and office practices.

Some of the comments by the respondents as reported in the October 1969 *Bulletin* are provocative. One person writes that the AIA has contributed to the demise of the small office and that 90 percent of local and national AIA programs are not directed toward it. One person comments on the small office tersely, "Rapidly approaching extinction based on present AIA policy of inadvertently encouraging bigness and business. Large offices overly aggressive, branching out, scouring the country, ignoring local associations. Darwin's theory evident lately." Another accuses the larger offices of using tactics which "range from degrading statements to fee cutting," and still another person comments that the larger offices "do not abide by the Standards of Professional Practice, they cut fees, donate free sketches, corner work by political connections and in any way possible cut out all competition from whatever source and by whatever methods."

Opinions vary, however, and one person writes, "Not all small offices should survive nor will all eventually grow to be larger. It depends upon the man or men involved, not on what help they receive." And another bluntly states, "Any office that is



based on the professional skill of one man appears to me to do a great disservice to his clients and his profession." Another warns that architecture is really part of "the real estate development, industry, the land planners, the developers, the mortgage bankers, real estate brokers, builders" and "unless we adapt ourselves to fit in the role, the industry is going to do without us."

Some respondents offer suggestions as to the manner in which the small office can be saved. One calls for the AIA to help all offices establish a comprehensive referral system, such as doctors and dentists have. Another points up that the small office needs better aids, such as computer services, retrieval systems and simplified computer graphics, plus a joint effort with other offices for business services and large project collaboration.

One believes that "the small office has to seek other sources of income if it is to survive and perform the design service it alone can offer. Otherwise, the architect-owner-contractor relationship is too insecure financially to permit the firm to survive." Some emphasize the use of the small office where "a personalized service is required and provided," and one architect says he is "grateful for all work which has been recommended from big offices because they realize they cannot provide the required attention."

At least one person states that the architect must go where his talents will be used, "even if it means sacrificing proprietorship." Some point out that the fee structure's percentage of cost method is antiquated and much too low and that a 200 percent increase "is more nearly the value of architectural services." Another person believes that, if the small office can handle a job, it is "capable of doing a better job than a larger office because personal responsibility is a ratio of the size of an office."

Perhaps one comment summarizes the whole thing: "As best as I can tell, all the talk and a published report have done *nothing* to actually help the small office. How about some small, positive *action*?" The California Chapter hopes other chapters will report to it what positive actions they are taking to assure the survival of the small office.

MARY E. OSMAN

The small office is still very much alive in northern California. Shown directly below are architects at work in the drafting room of Knorr + Elliott & Associates in San Francisco. The other two photographs dramatize another small office, that of Donald Keith Olsen, AIA, in Sausalito.



Where We Stand on Our Commitment

A status report of the Institute's involvement in community improvement efforts considers the structures, goals and programs of the Task Force on Professional Responsibility to Society.

It has been almost a year since The American Institute of Architects convention in Chicago, and Boston will soon be here — time, perhaps, to stop and take stock of just what has been accomplished by the Task Force on Professional Responsibility to Society.

In order to put the task force programs in proper perspective, it is necessary to list certain fundamental objectives of the Institute upon which the goals of the task force were predicated:

- Improved living conditions of all races and economic groups. (Increased citizen participation and the greater role of the architect as an advocate are fundamental to the achievement of this objective.)

- Equal opportunity for all in education at every level, in jobs and in professional practice.
- Greater participation in decision making and in the formulation and implementation of its program by the minority groups which will be largely affected by these programs.

In working for the attainment of these objectives, the task force feels there must be cooperation to the full with other disciplines and organizations that will be involved.

So much for the parameters. What of the task force, its structures and programs?

The task force presently consists of 11 members: AIA Vice President George T. Rockrise, FAIA, chairman; David N. Yerkes, FAIA, vice chairman; Leon Bridges, AIA; Taylor Culver; Joseph Flores, Raymond Huff; Michael A. Interbartolo, Gene Lindman; Roger W. Margerum, AIA; Robert J. Nash, AIA; and Hugh M. Zimmers, AIA.

Since the task force is an arm of the Institute that is basically recommendatory in nature, it was necessary for a staff to be

created in order to execute such programs as were approved by the AIA Board of Directors. This staff includes Grady E. Poulard, director for community services; Stephen Cram, assistant director for community services; Loretta Rhyne, administrative assistant; LaRue Ross, administrative secretary; and Zimmers, as consultant to the task force.

After Chicago, the task force was instructed to develop a procedure which would implement the convention resolutions. The result was a 17-point program approved by the board "in principle" at its September meeting in Santa Fe.

At this meeting, the sum of \$8,000 was appropriated for the 1969 costs of staff, task force and supplemental services. In December, the board approved a 1970 allocation of \$145,000, which was broken down as follows:

- \$50,000 as a 1970 AIA appropriation to AIA's Scholarship Fund for Equal Opportunity.
- \$20,000 as seed money for the educational improvement of the six schools of architecture which turn out the majority of the black architects in the nation: Hampton Institute, North Carolina A&T State University, Tuskegee Institute, Tennessee State University, Southern University and Prairie View A&M University.
- \$30,000 to provide material for promotion and to raise money for community design centers. (This term has been changed by the task force because it felt that the word "design" was misleading; the new term is community development center.)
- \$45,000 for personnel services. These included the services of consultant Zimmers and Cram.

The board also approved a voluntary fund-raising campaign for those interested in giving personal support to the program, the proceeds to be used to accelerate specific national projects and to support chapter efforts at the community level.

The question now arises, what of the \$15 million commitment accepted by the Institute in Chicago? Surely, \$153,000 for 1969 and 1970 does not approach the amount called for by the convention.

A partial answer lies in the wording of one of the resolutions approved in Chicago: that the AIA Task Force on Equal Opportunity [now the Task Force on Professional Responsibility to Society], "supplemented by a voting student-concern team, meet as required with the established purpose of establishing programs, administrative structures for operation and disbursing funds in line with the \$15 million—the commitment sought by the Association of Student Chapters/AIA."

The resolution's language is succinct — not "disbursing \$15 million in funds" but "disbursing funds in line with the \$15 million [commitment]."

Further, as Bridges, who is not only on the task force but also the Committee on Scholarships, stated in Chicago, "Increased funds are not our greatest problem; increased effort is, and an even greater need is your positive effort to carry out those concepts that dictated your generosity to begin with."

And Zimmers, writing in the February AIA JOURNAL, noted, "The students challenged us to generate this [the \$15 million amount] in cash to make these actions stick and provide money for minority scholarships, community design [development] centers, training, teams to help remove building restraints, etc."

In short, the commitment that the Institute accepted in Chicago was that of providing, at the national level, the support and expertise necessary to achieve the task force goals; supplying seed money to analyze program requirements and finance the search and application for outside funding; furnishing the contacts and mechanisms requisite for locating these outside funding

sources; and stimulating the local chapters to become involved in the task force programs, both in terms of time and money.

This, then, is the gauntlet that the members took up and handed, through the board, to the task force staff. The resulting 17-point program (divided roughly into four action areas: educational, political, social and financial) is the task force's answer to this charge.

The following is an attempt to review the performance of of the task force, in terms of the execution of its programs and the support of the Institute.

The task force, realizing that staffing and initial funding would be a critical factor at first, assigned priority levels to each of its programs in order to be able to begin immediately on those areas with the greatest needs. Top priority was placed on two of the four areas of interest: educational and social.

Under the educational heading, the scholarship program received top listing, and the evaluation program for the six black schools was next in line.

In the other category — social — the ranking program was the "Nader team" effort for exposing red tape and constraints in building for the poor. Following this was the community development center program.

Of these four programs, three are funded; only the Nader team program remains without financial support.

The scholarship program is proceeding quite well. The purpose of this is to provide new scholarship funds for disadvantaged minorities for all expenses of full-time enrollment in architectural schools that are either accredited or aiming for accreditation.

Funding for the scholarship program has been the best of all the task force programs. As stated earlier, \$50,000 has been appropriated for 1970 by the AIA. In addition to this, the AIA has pledged \$500,000 over the next five years, and this sum has been matched by the Ford Foundation.

Staffing for the scholarship program is, like funding, the farthest along for all the programs. Poulard started as staff executive on April 1; an administrative assistant joined his staff on April 13.

The first 15 candidates will enter school in September. Further, it is a task force goal to raise an additional \$500,000 to continue the scholarship program beyond the \$1 million now raised.

Next in priority under the area of education is the program to assist predominantly black schools of architecture to attain full accreditation and to develop cooperative programs between the accredited and nonaccredited schools to the benefit of both.

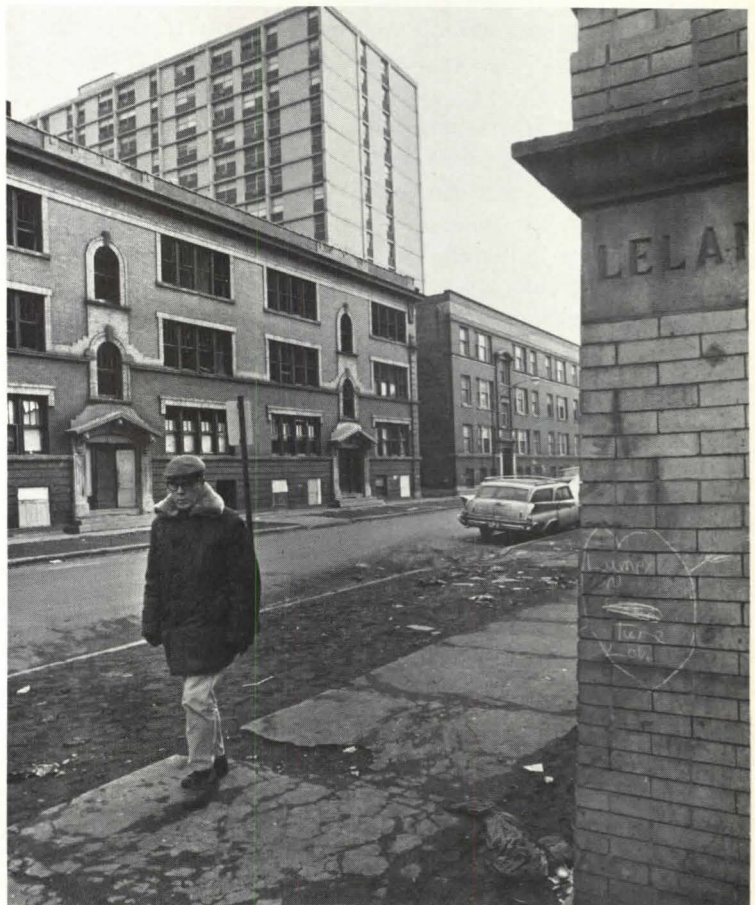
This program has been funded by the Institute with \$20,000, and the results are gratifying. There are, as noted earlier, six schools involved in the program. The task force has been working very closely with the Council of Black Architecture Schools, as well as the National Architectural Accreditation Board and the Association of Collegiate Schools of Architecture.

The NAAB visits to five of the six schools are complete (Prairie View A&M in Houston, in following a semi-independent course of action, is setting up a new architectural department with the support of the Texas Society of Architects), and a full report of the schools evaluation needs will be given to the task force in May. The anticipated assistance necessary to achieve accreditation is \$4 million, to be raised from government, foundation and AIA support. The task force feels that the evaluation and preparation of funding requests is an immediate staffing need. All in all, the prognosis for this program is excellent.

The Nader team approach to the removal of constraints in building for the poor, the top priority program under the heading

of social action, is practically without funds. Although this particular program was put forward at task force meetings by the practitioner-segment of the membership, there seems to be hesitant backing for the programs by the Institute. One of the major obstacles has been the lack of teamwork among the AIA committees that are involved: Housing Programs, Governmental Affairs and Urban Design. This state of affairs, however, appears to be correcting itself to some degree. The Governmental Affairs committee has contributed \$2,500 (which has been matched with a like amount by the task force) to Housing Programs for the purpose of establishing a blueprint for needed reform and the mechanisms for carrying out such a reform.

The second-ranking program in the social area deals with



Community development centers — a part of the task force's programs — in action: Robin Wright, AIA, the director of Chicago's Uptown Design Center, with Mrs. Wright, a planner, Arnold Lerner, a VISTA volunteer, and Charles Geary, a client, discuss the Leland Street area (below). The tenants, who plan to live in the building while the renovation process is underway, will perform the actual construction work.

community development centers. This program has been funded by the AIA with an appropriation of \$30,000 for the purposes of providing materials and promoting and raising money for CDCs. Part of this funding went for the first national CDC conference held in Washington in March. With more than 200 CDC operators, their clients, students, educators, AIA chapter representatives and government officials attending, the conference was an unqualified success. Perhaps the most important result to come from the conference was the call by the conferees for the AIA to hire, at once, a fund raiser.

A major function of the task force staff is the gathering and dispersing of CDC information and the encouraging of feedback from the some 40 CDCs across the nation.

The national AIA, which is also going to suggest a fund drive at the local chapter level, has approached the following outside sources for operating funds for CDCs:

- The Office of Economic Opportunity housing division which has been supporting a few of the larger CDCs for several years.
- The Housing and Urban Development Model Cities for supplemental funds (which are now directly financing one CDC).
- The Ford Foundation which has aided CDCs in the past and has expressed interest in the national CDC program.

A further and very important input into the program is the employment of VISTA volunteers who are being coordinated at the Institute end by Cram. At present there are 12 VISTA members at work in CDCs, and by the middle of June there will be an additional 65.

These, then, are the four major task force programs. Of the 13 programs remaining, 10 are unfunded and three are funded. Therefore, in order that a clear picture may be presented, these remaining programs will be grouped according to the status of their funding. The three that have been funded are the on-the-job training program (OJT) and the two creative economics programs dealing with financing and tax policies.

The basic goal of the OJT program is, as the name implies, to train disadvantaged minorities, in an office environment, to become architectural technicians. It would also enable offices to identify candidates for university training.

This program, which has been funded through the Urban League/AIA program for on-the-job training, has 30 youths in offices (using Labor Department funds channeled through the National Urban League). The task force hopes to expand the number of participants to 100 and to achieve complete geographical coverage this year. The task force has also issued a set of OJT guidelines to participating offices.

The two creative economics programs share funds amounting to \$5,000, and both hope to be completely scoped by June 1. The main thrust of these programs is to generate ways of attacking costs of financing and creating regenerative funding and zoning incentives. Further, the programs hope to develop a tax policy that will encourage a national land policy and offer tax incentives for public works.

The 10 programs that remain to be evaluated are all unfunded. The goals of these programs are to:

- Organize high school career guidance programs to inform minority students of opportunities in the environmental profession
- Develop and distribute remedial education courses for disadvantaged minorities
- Provide scholarships for disadvantaged minorities for architectural technicians and technologists
- Develop architectural school participation programs in CDCs and exchanges with minority schools
- Develop continuing education courses for practicing architects

in the areas of advocacy community participation and social and economic aspects of the environment

- Organize a public education program to establish environmental health as a fundamental right of all persons
- Provide urban design assistance teams, with experienced interracial participation, to communities needing the impartial analysis to catalyze resources and implement same
- Survey government with the aim of developing operative, equal opportunity within the profession; develop interdisciplinary projects in areas where minority professionals can have greater roles; and encourage joint ventures between minority professionals and larger established firms
- Establish a strong political action effort capable of creative and legislative initiative
- Publish guidelines for citizens' participation in the planning process.

The task force estimates that the cost for these 10 programs for 1970 and beyond will be \$1,485,000, to be drawn from the AIA, government, private sources and the fund drive.

Since, as of this writing, these programs remain unfunded, there is no valid way of evaluating them other than to note that they are goals that the task force feels are important but do not carry the same weight as the other priority programs in terms of execution.

These, then, are the task force programs, their goals, priorities, funding and results. As can be easily seen, there is a direct relationship between the amount of funding (if any) for these programs and the results that have been achieved.

As in the case of any newly scoped endeavor, there has been considerable time and effort spent in creating the necessary staff and in getting the input requisite for the creation of the proper mechanisms to achieve the desired goals.

Clearly, the lack of initial funding for the majority of the programs has placed an intolerable burden on the task force. It is a simple fact of life that money begets money; without initial funding the task force cannot expect to be able to generate funds from outside sources in line with the \$15 million commitment.

Further, there has to be a greater effort among all the participating AIA committees and commissions to achieve coordination among themselves for those programs where more than one group are involved. At the Board of Directors meeting in Santa Fe, these commissions and committees were given a "mandate to examine the extent and nature of their responsible involvement in areas of the Program of Social Responsibility and to begin the development of projects to implement the program."

In terms of an overall evaluation of the task force's 17-point program, three points become immediately clear:

- The programs that have been funded have progressed at an amazing rate, and in some cases (the scholarship program for one) they have begun to generate outside interest and funds.
- Additional mechanisms are needed to aid the search for prospective outside funds. This is one area in which Institute support and contacts will play a vital role.
- The most critical factor at this stage of the game is the allocation of those initial monies so desperately needed in order to generate further funding.

The programs that the task force has presented are imaginative, viable and fully in line with the challenge issued in Chicago. An enormous amount of work by the Institute and the task force has gone into the endeavor, but more is needed. As Marie Dressler once noted, "Never one thing and seldom one person can make for a success. It takes a number of them merging into one perfect whole."

MICHAEL C. RECTOR

The Non-Dymaxion World of Buckminster Fuller

by WILLIAM MARLIN



An ebullient, young architectural writer converses with the 1970 Gold Medalist who, although a "nonarchitect," has been, and continues to be, a dynamic influence in the profession.

Richard Buckminster Fuller's 2001: Earth Odyssey has barely begun. He dates it from 1927. By then, he had entered and left Harvard twice; married Anne Hewlett, daughter of a prominent New York architect; served in the Navy where he acquired a navigational view of more than just ships; and gone into a building business which failed. His first daughter died in 1922 of infantile paralysis. When his second daughter was born five years later, he was out of work and money. Instead of suicide, he contemplated his relationship to the forces around him. And so Buckminster Fuller, "comprehensive anticipatory design scientist," set out to make the world work.

Today, at 74, Bucky travels 200,000 miles a year. He wears several wrist watches to keep track of time in places which concern him. Secretaries wait at his ports of call to transcribe his lectures and manuscripts. Wherever he is, typewriters clack and phones ring incessantly.

The world student movement does not come as any sort of surprise to Bucky; he helped invent that too. He has visited 400 colleges and universities. Occasionally, he gets back to the non-confines of his own geodesic dome home at the University of Southern Illinois at Carbondale. Nearby, below a 600x400-foot projection of the earth's surface, he is building a \$16 million computerized World Game to measure the physical and social metabolics aboard his Spaceship Earth.

Says Bucky, "The World Game will explore and experiment with grand strategies for making the world work. In 1927, I gave the name *ephemeralization* to the design science strategy of doing ever more with ever less per unit of energy, space and time. I saw that we might be able to take care of everybody with a much higher standard of living. John Von Neumann's war gaming is invalid. It assumes someone must lose. The object of the World Game is to find all the moves by which the whole field of climbers can win, each helping the other."

No one loses Bucky's World Game. It will inventory the resources, experience, trends, conditions and crises of earth. It will help people and their governments comprehend and relate their problems. "Politicians are going to confess the obvious, that no human being can keep in mind all the special interests of all people and all the whereabouts and unique behaviors of all the resources of earth. But the computer can integrate and disclose the critical information and be completely convincing." Bucky's system does not ignore but simply bypasses politics. It aims for a view of man which transcends political and geographic boundaries. Teilhard de Chardin called this world consciousness the "noosphere," a foreseeable convergence of human resources and ideologies based on the common drive to succeed environmentally. Bucky has been flying the "noosphere" for some time.

A basic contingency of this design science strategy is a state of permanent peace. Bucky believes strongly that the one thing not subject to competition is human survival. His ever more with ever less technology — the faster movement of men, materials and information, the increasing miniaturization of everything from satellites to transistors — this technology can, in the Fuller view, relieve men of such competition and free them for more "noospheric" pursuits. He views education as the biggest industry of the future. With computer-quick data feedback, telecommunications and efficient ground transportation, Bucky's schoolhouse would deploy students regionally, living and learning in many new ways. The spectacle of seeing

a helicopter airlift a geodesic dome from factory to site is old hat by now. Yet it is an intimation of the mobility which Bucky sees coming for our society and cities.

Bucky personifies this mobility. There is no room for waste or wheel spinning in his world. "We must find ways to employ all our equipment all of the time, eliminating the empty and thus serving 100 percent of humanity instead of just 40 percent. All the fine plumbing of the office buildings goes unused at night. So do the typewriters. These buildings are empty 16 hours a day." On his flights over cities, he can look down all miles of ill-used and under-used land, much of it consumed by parked cars, each of which is immobile an average 94 percent of its life. Says Hertz fan Bucky, "I will never own another car."

I caught up with Bucky and Anne Fuller last January in Pacific Palisades, California, the weekend The American Institute of Architects announced that nonarchitect Fuller would receive its Gold Medal at Boston this month. They had flown in to visit their daughter and son-in-law, Allegra and Robert Snyder. She is a choreographer and historian of the dance; he, an Oscar-winning producer of documentaries. Typically, the Fullers would be there only a week or so, just in from the Bahamas and soon off for London.

Word has it that Bucky may be building a launch pad for his Spaceship somewhere off the Bahamas, where a 5-mile area atoll, sunk an even 5 feet below the sea's surface, might anchor one of his crystalline tetrahedral cities. He has already designed such a floating, self-contained community which would lay an anchor in Tokyo Bay, able to navigate any ocean.

After the medal in Boston, Bucky will go on to Greece to participate for the eighth straight year in the Delos Symposium, a floating rap session for barefoot brains, hosted by planner Constantinos Doxiadis. Although the two have a deep affection for each other, the Delos sessions have seen Bucky and Doxiadis at each other's conceptual throats.

Bucky looks at urbanization as a passing phenomenon. "Urbanization is only temporary as the cities become launching pads for each human's blast-off into world-shuttling citizenship." Doxiadis, on the other hand, seems to deify urbanization, planning his *ecumenopolis*, or world city, with the help of a staff that includes one of the biggest computer banks in Europe. Both men, however, view the process with the objectivity of scientists and the compassion of poets. Both sense that world youth is ready for the nowhere-yet-everywhere cities they envision. It is no mere coincidence that everywhere Bucky goes there is an almost mystical attunement between him and the students who seek him out. A few years ago, Doxiadis asked Bucky to address the Delos group and said that he would let a member of Bucky's own generation introduce him. Sure enough, up got Doxiadis' daughter to do the honors. Given the choice of meeting a head of state or a student, Bucky would doubtless choose the student. In Italy, he staged a mind-blowing ballet of the mind for several hundred young people in a dome of his own design. Last fall, he dropped in at a meeting of a militant youth gang on Chicago's near north side, petrifying his terribly respectable hosts. Bucky's "noosphere" has little truck with politicians. In answer to the question, "What would you do if you were building commissioner of the United States?" he replied, "I would resign."

Indeed, Bucky enjoys prerogatives few politicians can claim. For one thing, he is taken seriously. Nonarchitect, nonplanner, noneconomist, nonmathematician, nonphysicist, nongeologist, nonphilosopher, noninventor, Bucky Fuller is all of them at once. He regularly reminds people that overspecialization leads

to extinction in any species, including humans. He is not in danger. Famous innovations, such as the geodesic dome, are just expressions of a much deeper philosophy: the strategy, both physical and moral, of doing ever more with ever less. These inventions, along with his notorious terminology, are the mediums of his message. Despite what he calls the "negative inertias" of our society, Buckminster Fuller is being recognized as one of the 20th century's most influential moral forces. As if he needed credibility, there are several thousand of his domes around too.

Last year, off Delos, Apollo 11 well on its way, Bucky issued his shipboard Declaration of Interdependence, "I seek through comprehensive, anticipatory design science and its reductions to physical practices to reform the environment instead of trying to reform men, being intent thereby to accomplish prototyped capabilities of doing more with less per each realized function." Later, in the ancient amphitheater, on what the ancients called "the clear island," he spoke simply of love. The barefoot brains seemed remote from the events thrilling people around the world. Yet there was Mike Wallace and his camera crew, taping the dramatic sunset and the Fuller word. It seemed that Bucky had been clearest of all, this man of the four-hour lectures, because he had let the clear triumph of Apollo 11 speak for him. Almost inadvertently, this technology had restored our humanity. We all saw what the "noosphere" might be like. The question preoccupying the Delos group: "Would our cities ever do that?"

Bucky picked me up at the Santa Ynez Inn and we drove up Sunset Boulevard to Via de la Paz, where he and Anne had taken an absolutely anonymous walkup apartment. I soon found that he had made even *that* cosmic. Sure enough, the secretary, the typewriter, piles of paper and, already, someone on the phone. The teapot was put on immediately and kept on for two days. And there, along with the confusion and consultations, Bucky began talking about Universe as if it were an old friend. "You have to come to Universe having its own authority. One of these is the metaphysical and the physical. The fact that all that counts between you and me is my thought, and not my shape or age, this is absolutely weightless, the metaphysical. This takes measure of the physical."

Bucky likes getting back to the basics of Universe, which he can do almost anywhere, on Via de la Paz, on Delos, in a Chicago ghetto or back on Bear Island in Penobscot Bay off Maine, where he has spent summers since boyhood. He sees in Universe an incredible economy, a system of checks and balances, an integral ethic. Of the Maine islands, Henry Beston once wrote, "There was nothing anywhere that was unnecessary, whether the work of man or nature." Bucky has taken this ethic and built it. His domes, whether of aluminum, plastic or paper, are highly efficient, have great strength and use a minimum of material. They can be preassembled and airlifted to location. They carry more weight and enclose more space per unit of time and energy spent on them than any other structure ever devised. But the geodesic dome is not Bucky's first or last expression of ever-more-with-ever-less.

"I told myself in 1927 that I would go as large as Universe, get at the fundamentals, find out what it is that I as an individual could do by its laws. I was not called an architect; I was not called anything. So I had to educate myself in many

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ways. I knew that if some individuals make first moves, they can incite others. I knew I would do it by a design science revolution."

The revolution he began is taking many forms. And he sees it coming fast on the campus. "The young world is really coming through. I can't believe how 12-year olds come up to me on the street, recognize me and start talking about my work. Even the underground papers are picking me up." He handed me a *Los Angeles Free Press* with an article on the World Game by Gene Youngblood. "These people sense I am unbiased. In fact, I am probably the most unbiased person you ever met. You see, I am convinced you cannot be both scientifically competent and biased.

"The design science revolution cannot take place without radically altering the way we educate people to comprehend and relate the laws governing Universe. The coming together of art and technology has been deep in man's conscious a long time; his intuitions, the drive of the mind to sort out and reassociate things. The reason I am making a difference is that I have taken the initiative in an utterly comprehensive way, both in economics and in good design.

"The child has this natural but soon-frustrated tendency to comprehend and compare events and experiences, abstracting general principles from these specifics. Education must protect these innate faculties. This means environment, which is not things or places, because environment is not static; it is energetic, a bundle of frequencies. Some things are very high frequency; others, only once in a lifetime, like Halley's comet. Environment is the convergence of these frequencies. We must get the frequencies modulated so all the information and experience is where he [man] needs it. This means an environment which nourishes his comparative sense. When a child experiments with the front burner on a stove, he does it. But he can also experiment with great competence. If parents or teachers say, Don't do that, don't tear my good book, the child stops experimenting."

This was a "baby-go-boom" demonstration, with Bucky down on all fours showing how infants, born helpless, gradually learn to comprehend, react, raise themselves up, then walk. It was two in the morning; and he was ready to talk about our "good friend tetrahedron," the basic geometric unit of his geodesic structures.

It is as a prototype of things to come that such structures as his spherical pavilion at Expo 67 are important. Bucky has already gone beyond them in his concept of the Black Box, his own version of Kubrick's 2001 Monolith. Bucky points out that communications are tackling heavier loads with more compact equipment. Televisions and cameras are being miniaturized. Cars will have to be. Bucky views the coming house as a "miniaturized and capsulized human ecology." He notes, "At the time of the Depression, the 'mechanical inclusions' in the house made up 28 percent. After World War II, it was 45 percent, with the new plumbing, heating and wiring. Today it is 60 percent. The cost of electricity has gone down, but the cost of the house shell has gone up and up, even though the house has become smaller and smaller." The same technology and persistence which sent men to the moon can package systems for the comfort, education, and metabolic regeneration of humans — and do so with consummate compactness, say 500 pounds and 20 cubic feet. Bucky believes that for an initial expenditure of \$7 billion the great powers could mass-produce the Black Box and make it cheaply available to everybody. Furthermore, this would free people of their idea of the city as a walled-in

place and open up new concepts of living. At one time, men were nomadic because they had to search for sustenance; in the Fuller view, men will be nomadic as they search for stimuli and new ideas.

His first expression of this was the famed Dymaxion House of 1927, cable-hung from a central mast, hexagonal, collapsible, mobile. Bucky offered the patents to the AIA, but was refused. "Be it resolved that The American Institute of Architects establish itself on record as inherently opposed to any peas-in-a-pod-like reproducible designs." Says Bucky, "I tried to operate anonymously in those days. I wanted to make it a gift to them. And they passed this resolution. It's really kind of funny." This happened the year after Lindbergh's flight, a Dymaxion deed whose more hidden dimensions did not go overlooked by air pilot Fuller, who would one day design spherical "cloud nines" to house thousands of people at thousands of feet.

Terribly Dymaxion David Kimball showed up with a friend that evening to watch Bucky crawl around on the floor. Dave had been a student in Colorado in the '50s, where he met Bucky at a lecture. Dinner conversation was mostly about boats and rigging. Dave was on his way to British Honduras, where he planned to sail the 200-mile long barrier reef. He had just spent several months in the Fox River Valley west of Chicago, working high tension power lines, earning enough money to free him for travel. Bucky ate his usual steak, occasionally putting both hands up to his ears to hear better. The restaurant was very noisy, and his hearing aid amplified everything. He finally just turned it off and used his hands. "With the hearing aid, I hear everything in here, but it's garbled. Now I can hear you just fine, but I can't hear the rest of the room." So much for the limits of technology.

We drove back from dinner and pulled up beside Dave's Black Box; in this case, a VW bus, mast and sail tied on top, its own metabolic regeneration system (kitchen and all), sleeping, reading, writing space, good radio. Here were Dave Kimball and company, happy, unheeded, off to Honduras, rooted in an ethic of their own.

The next day I asked Bucky, "Doesn't Dave really personify what you mean when you say that technology will enable men to transcend ownership and real estate? Now I know that this is awfully heretical of architects, whose children need shoes and all that, and who must go to work for developers. Yet Dave Kimball owns very much indeed. He scales his values differently. He measures personal progress differently."

Bucky replied, "Dave puts himself into positions by following opportunities, which is almost an intuitive thing. One day we came into Newport — all these great castles there — and in no time at all, Dave had found that there was one man still living in this castle, had been living there for 50 years through all the changes at Newport. It never fails, he goes to call on and look and goes to see things. People always welcome him. He's liable to stay around awhile, then drift awhile. He does these very deliberate things and gets some very interesting results. And he'll write ragged letters about every detail to somebody.

"Something very interesting in this, old man. I met his father and mother, and they're really wonderful. Charming New England people. I think that Dave's relationship to people is symptomatic of the young world's outlook in general. His code may seem irresponsible at times. Yet there is something about him which makes us look out very vigorously for him. His parents are examples of extraordinary human beings. They have allowed him to be a child for much longer than most. They

have not said, 'Now is the time for you to stop being a child.' You know, many of the attributes you and I admire in Dave is because he is now this very spirited child doing a very logical thing with his life. He gets money because he simply wants to increase his freedom. He appears in our life two or three times a year and has for all these 15 years. He'll start painting the house and sharing in the community responsibility, and he does it very well. Yet there is this strange aloofness about Dave. He does things he feels. I'm sure if you asked him to start painting the house, he would want to do something else. He wants to think up what he wants to do."

Bucky's own education was a matter of thinking up things to do. He was in constant contact with many experiences. It is only natural that he views the old idea of school with a fence about it as obsolete.

"The child has to educate himself. The job of education is to help him do that. So you have computer programs. In a couple of years, kids will have video tapes to simply plug into their televisions. They used to get this information out of encyclopedias. Now getting it will be much more exciting and varied. They will become more ingenious in expanding their experience. And they will become more ingenious in reporting their experience. Cities will turn into great universities. Men now converge in the cities essentially for abstract, weightless, metaphysical activities. In the future, everybody will spend most of his time going to school."

Most architects, in Bucky's view, are slaves. They do not command a broad knowledge of technology. "Architects don't initiate much; they just go to work when the client says so." Most architects do not think of the effects of technology on our institutions, neither do they seriously ponder their professional role in altering those institutions. Real estate, for example. Says Bucky, "Fortunately, men will become less and less dependent on real estate interests as their mobility increases. Real estate becomes obsolete as men become more intelligent; so one doesn't have to wrest power from the realtor. Technology, not politics, will eliminate him."

Now, what does this say to architects who are honoring themselves by giving Bucky Fuller this Gold Medal? He has said they are slaves, forever reacting to the standards and attitudes of others instead of helping shape them. He has said (wince), "The architect is just a tasteful purchasing agent."

The Non-Dymaxion World in which architects work is nothing very esoteric. Social pathologies multiply, dividing us further. Polarization continues. Technology, in the best sense an extension of nature's own ethic, seems to be moving us inexorably toward one world. Man, in all his bitter fractionalism, seems bent on destroying it. Our resources, energy and space are being wasted. Wealth is still how much one guy can make off another when, in Bucky's view, it should be "the total number of forward days man has left." When he speaks of the alternative between utopia and oblivion, he is being pre-eminently practical and very much, as Marshall McLuhan has said, the high priest-philosopher of the technological age.

Despite their shackles, Bucky believes architects will come to lead his design science revolution. Typically, he is trying to reform architectural education instead of trying to reform architects, and that means a command of technology as well as of its human implications. He has urged, and in many cases sponsored joint academic and professional research. He would like to see consortia of schools invest in information banks so that students and teachers can get the data they need, fast, leaving time for more important things, like thinking and asking ques-

tions (some of them troublesome). "The older fellows will continue in the same way. The poor guys can't help it. But the younger men in the offices are working their way up. They want to be held accountable for what they do. They want to be part of evolution. They have come to understand what I am saying."

There are Fuller patents, structures and books galore. Yet none of these is as strong as the influence one senses talking to young professionals in the arts and sciences. Bearded or Brooks Brothers, Bucky has his in-fighters operating at every level of American life. One can sense the same convergence occurring in Soviet society where, despite "negative inertias," famed scientists and writers are asserting the same human theme that economic and ideological dogmas must — and are — deferring to humanity's evolutionary drive to succeed.

Speaking in 1966 at San Jose State College in California, Bucky said, "It seems perfectly clear that when there is enough to go around man will not fight any more than he now fights for air. As man does become successful, the root cause of war will be eliminated. This is the most important prediction I can make: in 10 years we will have changed so completely that no one will say that you have to demonstrate your right to live, that you have to earn a living. Within 10 years it will be normal for man to be successful, just as through all history it has been the norm for more than 99 percent to be economic and physical failures." Perhaps 1976 could be a year of jubilation if America could ever see its way clear to setting that success as a national priority. Perhaps nothing less than a new Declaration (of Interdependence?) is needed. No new Expo, no Fuller pavilion, could obscure the ravages of misdirected wealth. Even if our war gamers continue to call the shots and spend the money, their strategies will inadvertently produce new resources and resolve to unite men. Bucky's world gamers would, of course, bring that about by strategy, not by accident. Says Bucky, "I have wanted to employ the earth resources in such a way as to support all humanity while also enabling all people to enjoy all the earth, all its historical artifacts and beautiful places, without one man interfering with another and without one man enjoying life at the cost of another."

Buckminster Fuller recalls that quality which his close friend Frank Lloyd Wright once described as "repose found only in action." Even in the rush to get me to Los Angeles International, he did not lose his cool. He and Anne got in their rented car and I, feeling very much ephemeral, got in mine with their grandson Jamie, who knew the way. Jamie had his Nikon with him, already a good photographer at 14. It occurred to me how the Los Angeles freeways do less and less with more and more. Then I asked Jamie how it feels to have a grandfather like Buckminster Fuller. "He has always been interested in everything I am interested in. The sailing. My pictures. And it's sort of great to read about him in the papers." He acted surprised by my question. After all, why all the fuss?

The Non-Dymaxion World of Buckminster Fuller may never be as efficient or serene as the world he has dreamed of and drawn up over the years. But Bucky is not annoyed by the contrast. He is at one stage of evolution, the rest of us are at another end and, as he said, "You have to come to Universe having its own authority." Hopefully, the technology which he has invested with such faith will amplify our humanity in the same way it has amplified his.

Then there was this man of the domes, very clearly concerned that I get my bags and make my plane. The Non-Dymaxion World of Buckminster Fuller seemed more tolerable now. "Goodbye, old man." I had made *his* generation. □

A CRITIC'S TOUR OF BOSTON

by JOSEPH L. ELDREDGE, AIA

Buildings in the Hub leave no one indifferent. Stay a day, and they become part of you; you either love or despise them. In the following, a former architectural critic for the Boston Globe takes you on a tour of his city and reveals his feelings and views of what has gone up in Boston of late.

If you have saved your 1954 Boston convention guide, hang on to it. It has become a collector's item. Henry-Russell Hitchcock's inventory may well be the first that summons the names of Benjamin, Bulfinch, Parris, Richardson, McKim, Cram, McGinnis, Aalto, Gropius, Breuer, Sert, Stubbins, Rapson, Koch and Belluschi all in the name of architecture. And, if you have not been back to Boston since that convention, this guide will tell you of some things you still will be able to see, and others that you will not. For the former, you can use this year's guide; but if you are looking for an obscure Richardson mercantile building on Harrison Avenue, or the S.S. Pierce Building at the corner of Copley Square, forget it.

Those two, and others with them, were lost to the deciduous frenzy of the '50s which assigned therapeutic value to the automobile. We promptly disemboweled Boston Common for an underground garage with its daily physic of Detroit iron and spread steel and concrete and blacktop viscera over the cityscape wherever the "experts" told us to. Because the automobile has been the greatest single force for change in our city since the last convention, it is fitting that we now mark high water and hope for the best. Governor Francis W. Sargent, himself trained as an architect, has joined in a bipartisan moratorium on (most) new highway construction within the regional peripheral bypass route 128 until we can do something about other forms of mass transportation.

There have been a number of other changes that I would like to tell you about because I believe they relate directly to the 1970 convention theme and to directions that urban architecture is taking. In the interest of space and sanity, it will be necessary to limit our trip to Boston proper, although it is obviously impossible to isolate its architecture from what has been a regional phenomenon. It is enough to say that this regionalism carries all of the overtones of New England isolation, with an awareness of the responsibilities of source. Because Boston has the best and worst of everything, the only possible posture for a critic is one of enthusiastic irreverence.

Try, then, to imagine a city that was just beginning to struggle with the emerging skills of planning; was considering that it already *had* its buildings; and was suffering from an



advanced case of Town and Gown. When the City Planning Department commissioned a study to reactivate a long-standing plan for a government complex in Scollay Square, the Boston Society of Architects volunteered a committee to represent the profession and be helpful in general. It included the deans of both Harvard's and MIT's architectural schools (Sert and Belluschi) along with Henry Shepley, Nelson Aldrich and Hugh Stubbins (chairman). This became the first real step toward a three-way relationship between the city and its misunderstood, underemployed design professions and schools.

The committee idea turned out so well that the administration began to seek its assistance on other matters. When private interests threatened the authority of Bulfinch's golden State House dome with 24 stories of drab brick apartments, the strong objection of the committee was no match for the brand of politics beneath the dome. A compromise of 18 floors was reached, but with no vestige of architectural review. The committee was able to function more effectively as advisors to the new State Office Building¹ on the north slope of the hill, overlooking what is now the Government Center. To the task of broadening the basis for civic decisions, the design professions brought a new regard for urban criteria which meshed with public programs oriented to joint public and private solutions. The attentions of the Boston Society of Architects both as a group and through individual efforts were instrumental in the commissioning of I.M. Pei & Partners to plan the Government Center and in establishing a competition for the design of the new City Hall as its focal point.

From the beginning the Boston Redevelopment Authority, which had the major public responsibility for these programs, insisted upon good design. Aside from breaking up the hopeless patterns of nonproductive ownership in rundown areas, the real transaction of renewal, Boston style, was related to controls. In exchange for workable parcels in stable, planned districts, the city exacted the right to approve the quality and character of each building and its setting. There were unexpected bonuses as architects found the BSA staff and Design Advisory Committee (an extension of the BSA committee) willing accomplices in thwarting mediocrity. On occasion it was the owner who needed help in exacting a better performance from the architect.

It will be interesting to see which of the buildings mentioned below came under this influence. I will classify them in parentheses as follows: design review; no controls; competition; and zoning changes required (and therefore review and recommendation by the planning staff, which in Boston is incorporated into the BRA). Just to keep things interesting, I will also identify a closed system building; an open system building; and a multiple complex (of open system buildings). I suppose if you were to agree that the ancient equivalent of a closed system building was "classical," the term Gothic might help to illuminate my meaning for an open system building. But it will be more obvious if we allow the difference to become manifest in the buildings themselves.

Assume that we have met at the airport and have noted while waiting for our luggage that things are different already. Boston may have been slow in building big, bright, gymnastic terminals with animated stairways and well-tended drifts of colorful bucket seats, but the new Eastern Airlines Terminal² (no controls, closed system) succeeds in bending the materials to the spatial concept without the irksome malocclusions that dog, among others, most of New York's JFK terminals. This kind of attention to detail holds throughout most of the new buildings that we will discuss.

After a quick trip through the harbor tunnel (nice, but noisy to have the airport so close) we arrive at historic Charles River Park³ (no control, closed system). "Historic" because here in the dawn of Boston's renovation the term urban "removal" was coined for the unhappy people who were less important to their city than the convenient location of their homes. Less understood is the profound contribution that this architectural Armageddon made to the quality of life in the inner city. Its impersonal and indifferently sited apartment towers established future guidelines against wholesale demolition and relocation and provided the impetus that locked design controls firmly into the urban renewal process.

Up Cambridge Street, the Government Center emerges as a series of swiftly changing impressions: the crackling authority of Paul Rudolph's hammered concrete over the State Service Center⁴ (design review; multiple complex), contrasted with the gentle bureaucracy of Gropius' Federal Office Building⁵ (no controls; closed system); the wide swing of Center Plaza⁶ (design review; closed system) coiled about the foot of Beacon Hill and cradling buxom old County Court House and its monotonous annex⁷ with Pemberton Square for a lap. Sears Crescent⁸ (design review; closed system) and the Sears Block⁹ (design review; open system) answer this curve with one of their own. In addition to preserving the copper kettle heirloom (holds 227 gallons, 2 quarts, 1 pint, 3 gills) which has served as a coffee shop sign for many years, the Sears Crescent will revive the art of sculpture graphics for signing appropriate to its tenants.

Buried now in the sympathetic restoration of this gentle component of the plaza are every headache and frustration that beset preservation projects. But try to imagine City Hall Square without them! The owners, architects and the BRA deserve credit for their faithful stewardship of the Pei plan.

Elsewhere, the plan for the Government Center was less specific, as in the area behind the gaunt telephone equipment building. This has blossomed into a series of tree-lined pedestrian malls at the hands of the BRA design staff to provide a visual and functional link between City Hall Plaza and the proposed Rudolph tower in the State Service Center. It is lined with service activities housed in "background buildings" (a Rudolph term) that are related to the older indigenous brick structures held at bay by the virtuosity of more important public architecture.

Matching facades with the Federal Building on New Sudbury Street is a giant precast answer to auto-osmosis. The Government Center Garage¹⁰ (design review; open system) will engage some 2,000 cars with a double subway stop and an interurban bus station serving the north of Boston.

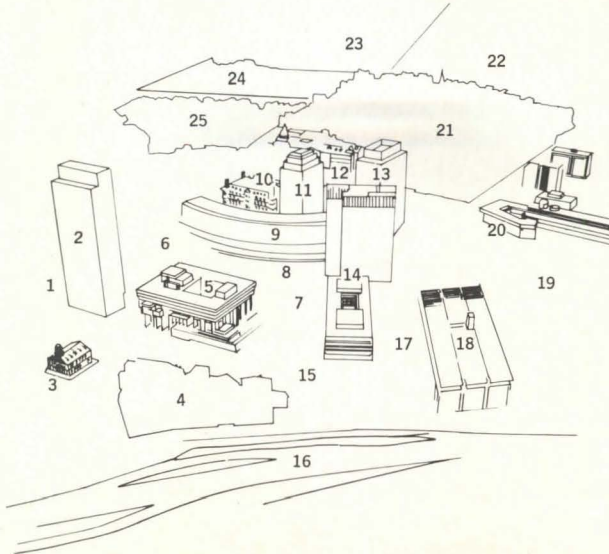
Not much has happened yet about a buffer building, possibly a motel, planned to preserve a smaller scale for Union Street (where you ate the oysters) and a quieter aspect for City Hall. But this parcel will be snapped up as soon as the rehabilitation planned for the area just beyond begins to take hold. It includes the Blackstone Block, an instant museum of 18th, 19th and 20th century small buildings surrounding the only 17th century streets still in Boston and our oldest brick building, the Ebenezer Hancock House. Further help will surely come from the planned restoration of the Faneuil Hall/Quincy Market area and completion of the pedestrian overpass from City Hall to Dock Square (a part of the City Hall competition program).

I had my own theory about this competition: that no one

Mr. Eldredge, who is a partner of Brigham/Eldredge/Limon/Hussey, is chairman of the Beacon Hill Architectural Commission and a director of the Massachusetts Roadside Council.



1. Old State House
2. New England Merchants National Bank
3. Faneuil Hall
4. Blackstone Block
5. City Hall
6. Sears Crescent and Sears Block
7. City Hall Square, also referred to as City Hall Plaza
8. Cambridge Street
9. Center Plaza
10. Old Courthouse
11. New Courthouse
12. Statehouse
13. State Office Building



14. J. F. Kennedy Federal Office Building
15. New Congress Street
16. Fitzgerald Expressway (Central Artery)
17. New Sudbury Street
18. Government Center Garage
19. State Service Center Plaza
20. State Service Center, Division of Employment Security Building
21. Beacon Hill
22. Charles River Basin
23. Back Bay
24. Public Gardens
25. Boston Common



State Street Bank Building (left), a mile or so high and pure precast craftsmanship; Sears Crescent and friends (below), something for everybody, including a lesson in texture, scale and sensibility; Center Plaza (right), its three portals promoting a steady flow of people up and down the slopes of Beacon Hill, uniting four levels of government activity with the business community.



who knew anything at all about Boston (other than what could be learned from Lawrence B. Anderson's brilliant program, which contains an inspired description of Boston as it *should* be seen and felt by an architect) could have won it. My theory was based solely on the grounds that there had not been a good public building in Boston since Bulfinch (unless you include Bryant and Gilman's *old* City Hall in 1865), and that no jury would be inhumane enough to pick a far-out solution and have to stand by helplessly while something more conservative gets built. The spread of "square" solutions proved that I was not alone in my apprehensions. Imagine our surprise, agony and then delight to see a unanimous selection that bravely upheld the very schematic arrangement evoked by the program, one most of us had discarded in the interest of a more realistic solution for reasons which seemed good at the time!

That's why it is still a thrilling experience to walk through City Hall¹¹ (competition; open system), realizing that it did get built, that it did succeed in the program challenge of unifying the diverse architectural fabric of the city and its architects, as well. There were arguments we advanced in the bleak period of its building to sway others with a vision of the new city and to keep our own spirits up: The brick base was without fenestration to respect the double-hung logic of old State House and Faneuil Hall; the bold order of the upper floors would be on easy terms with conscientious mercantile buildings to the south and east; those suspended ceremonial formations would be equal to the lusty classic aspirations of the financial district; the building itself, with its ins and outs and ups and overs, was Boston in microcosm. But that's all over now; City Hall has no more need for poet-advocates.

Rising softly behind City Hall and leading the way up

Washington Street, the bland pink granite, quiet fenestration and slim reveals of the New England Merchants National Bank Building¹² (design review; closed system) prove that highrise structures can be used for a backdrop, in this instance acting as a foil for the more down-to-earth textures of the Government Center's old and new buildings. This is brought home as the Chicago Style Boston Building¹³ (zoning changes required; closed system) ruts skyward at an awkward angle beside it, its cross-gartered bronze bulk about to hatch an octagonal egg on the sidewalk below.

If office building design seems to weaken in proportion to its distance from Government Center, the crystalline purity of the State Street Bank Building¹⁴ (design review; open system) is a welcome exception. Its well-organized exterior conceals profitable rental flexibility within. From the top floor you can get the best visual drink of the harbor currently available and can set your sights for the New England Aquarium¹⁵ (design review; open system) tied up at the foot of Milk Street. An advance outpost of what will certainly become one of the most exciting parts of the city, it boasts the happiest tenants in town. The bold concrete and black-light response to the demands of fish and visibility make it difficult to decide whether to describe the building, the great ocean tank or the minnowy life within. It would be a kindness to acknowledge that other sea — of cars — that pollutes the entrance, perhaps with a long gang-plank from the street.

By now you may have noticed the incipient First National Bank¹⁶ (no controls; closed system) happening in the heart of the financial district. The remarkable visibility of its bulge from a number of places in the area gives a new dimension to the site and comprehension to a district in which I have often become

disoriented. This should make the bankers happy. While wags worry about such trivia as paternity and legitimacy, I wonder what this suggestive swelling will do to the prurient minds of less talented architects and their susceptible developer consorts.

Across the street, the Blue Cross & Blue Shield Building¹⁷ (no controls; closed system), once a tiny essay into another future (its novel Y-shaped first floor precast columns made news in the 1954 convention guide), threatens to become a cherished historic landmark. For other landmarks, follow Federal and Milk Streets to Washington Street for the Old South Meeting House and the enthusiastically restored Old Corner Bookstore. Then up School Street to the Old City Hall,¹⁸ now in the process of being restored to active use, this time for commercial and office space.

The usual forces of destruction lined up against this multiple memento of architectural and political prowess (the Second French Empire, Honey Fitz and James Michael Curley) were met head-on by Boston's wall-to-wall installation of preservationists. But it took the extraordinary powers and expertise of the BRA to create an acceptable package for private development under careful architectural surveillance¹⁹ (design review; closed system). In the process we learned something important: Do not be put aside by the insidious argument that because there is no use at hand for a valuable (or even just desirable) old building, it must go. So it takes a few years to put it to work. Tear it down and it will take a century to replace it!

We are now somewhere near the Government Center station of the "T"²⁰ (design review; open system), Boston's rapid transit, and the entrance to an underground renaissance. Simultaneously with the urban renewal program and with a nudge from the BRA, the Massachusetts Bay Transportation Authority

commissioned Cambridge Seven to put its neglected house in order. The sturdy appointments and swinging graphics of their stations, and others designed from their guidelines, induce speculation on a new economic reality, GNP₂ (Gross National Psychological Product). With it, we may find a way to measure the material results of public happiness, of the creative energy liberated by a dreary environment turned-on, of the new productiveness of a society that is learning to care enough about itself to show it in little ways like this. Cambridge Seven has carried the profession even further abroad with their sophisticated prototype design for trains on the new South Shore extension of the "T."

If you prefer to remember Boston Common as a place with sailors, pigeons and fountains where it was possible to get pleasantly confused, possibly lost, then stay underground until you get to the Back Bay. But if your own town is having trouble with people who insist that open parks should be lined with highrise construction, get off at Park Street.

For generations Bostonians have placed their faith in taking the right path across the Common, to church or to the theater or to go shopping, without knowing or caring how many sides the Common had. A lofty apartment structure along the southerly side has now compromised this elusive geometry by looming obscenely above the privacy of the treetops. Gallantly, we have spared other cities the need for expensive studies of this kind of architectural defoliation. Another example, an apartment tower on the Jamaicaaway (route 3 south) looks into the remotest corners of a great linear park, robbing it of its wandering anonymity.

As the hip pictorial directory at Arlington Street Station²¹ (design review; open system) suggests, time turns a corner upstairs. Past the Arlington Street Church, in living rotogravure,



Back Bay nestles restlessly, awaiting the return of its birthright at the hands of a panel of citizens appointed to consider the questions of zoning, controls and highrise construction. Although the area under assault is some 200 acres of 19th century planning and architecture for which there is no counterpart in any American city, the questions are fundamental to all older cities. Can we continue to expect ever-increasing tax returns from architecturally intact districts whose only crime is having been built too close to the center of things? Will regional relief through metropolitanization come too late? Can the introduction of aerial suburbs improve the quality of inner city life any more than the sprawling kind? Have we the legal and technical tools to incorporate *violently* different built forms into sensitive areas? What may we expect in the way of self-reconstruction of these districts from the simple expedient of removing the deadly spores of speculation?

Again the city is in debt to the BRA for providing alternatives: a proposal for zoning inducements linked to progressive controls for development of the north side of Boylston Street. It could lead to the eventual replacement of degenerate tickytacky, shivering timber and tin can Band-Aid renovation with medium-rise mixed commercial and residential construction; choice Boylston Street business locations with stunning views of the Back Bay and Charles, unbroached by further vertical blight.

Another study, this time by the BRA's Civic Design Committee (AIA JOURNAL, Jan. '62, p. 35), gave us the high spine concept. This would limit highrisers to a narrow strip extending from downtown along a line roughly equivalent to the turnpike extension and "long enough to serve a metropolis of any size." This study was used as a resource in the legal process that cleared the way for the Prudential Center²² (no controls, closed system).

I have long maintained that the Pru was not all bad. Its tall, square office tower, commercial and parking base, flanking apartments and hotel got built at a time when nothing else was moving. If it became a symbol of hope for some, it was a gauntlet for architects who were painfully aware that nearly any part of it could have been handled better. Still, the tower is appropriately nondirectional, chromatically compatible with Boston's magnificent skies and useful as an unofficial kingpin for its visual realm, the Boston Basin.

On its skywalk, you become part of a 360-degree document of the facts and relationships that architects and planners have trained themselves to bend to human needs. Godlike, nose to the glass, we join the sociologist in seeing the city as a "behavioral sink." At this remove the subjects are institutions, banks, universities, insurance companies, governments; betrayed by the slow graffiti of change. The subtle difference between fashionable Back Bay and "presently disadvantaged" South End is read in the sooty legacy of a railroad and a hundred years of coal smoke borne on the prevailing west wind. Today's fossilized remain writhes below in the form of a turnpike, challenging all comers. The Prudential complex, in conquering it and a rotting railroad yard, was itself infected by the turnpike's deadly venom, a steady stream of automobiles hungry for the hapless pedestrians who seek its upper safety.

From this catbird seat the socket of the John Hancock Tower²³ (zoning changes required; closed system) is a grim reminder of a lost opportunity to create a built form that would have been "capable of providing a more humane bridge between the South Cove, the Back Bay and the city as a whole." This plea, a unanimous resolve of the Board of the Boston Society of Architects (see AIA JOURNAL, June '68, p. 150) came too late

to affect the program or the design of the John Hancock Tower. Along with the strong opposition of the BRA Design Advisory Committee, it was ignored by an administration exhausted by a strenuous election and by a change of guard.

All that we had learned from the years immediately preceding about the relationship of development to the poignant needs of the city was negated by the arrogance of a program that was directed to vertical prominence. The architects' solution to the mathematics of site and gross floor area was both sensitive and powerful. Taken in the context of an irresponsible program, it becomes slippery architectural rhetoric. The client, who had offered the city an alternative to its munificence (moving out of town), was backed into building an air rights garage and shopping supplement over the nearby turnpike. Presumably the city will now have to back into a solution of the real problems created by this project: surface circulation and subsurface transportation, wind, and zoning variances for jealous abutters. Then there is the real danger of prolonging this Pavlovian competition for institutional altitude.

Every time I walk by the old Museum of Natural History (Bonwit's) at the corner of Berkeley and Boylston Streets, I ache at the thought that this innocent building may soon be declared incompatible with the high purposes of its insurance company landlord, who will then insert a steel and concrete sky in its stead.

First National Bank, a slippery precast and granite skin visible from just about everywhere; the Children's Inn (bottom), vitality harnessed to multiple uses without a form tie out of place.





Boston University Campus, whose new buildings share an interlocking vocabulary while still acknowledging the patina of some older ones.

So, see Copley Square²⁴ (competition, closed system) while it retains some vestige of its original surroundings, if only to assess whether structural presence can be negated by architectural virtuosity. Will a building sheathed in mirrors really disappear? By June the water should be running and the rest of the trees planted to soften the street din. Trinity Church will be there, and the Public Library, both the better for their new front yard despite unworthy concrete work at the church porch. In the advanced hole (or pre-sidewalk superintendent stage), the long awaited addition²⁵ (design review; closed system) to the Library impends behind. The design of this addition, one of the most demanding ever, may well have forestalled a posthumous compromise, as if HHR himself had returned to work it all out with the shades of his old buddies, McKim and White. The great earthbound order of its nine square bays, created in the handsome image of its consort, is an interesting feat of architectural husbandry.

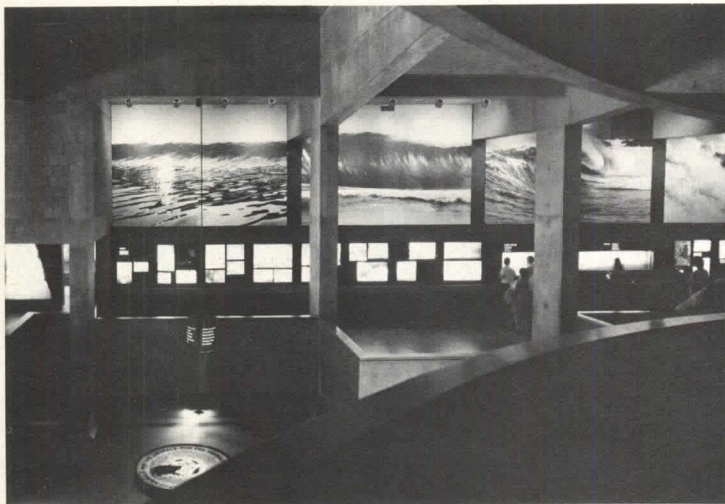
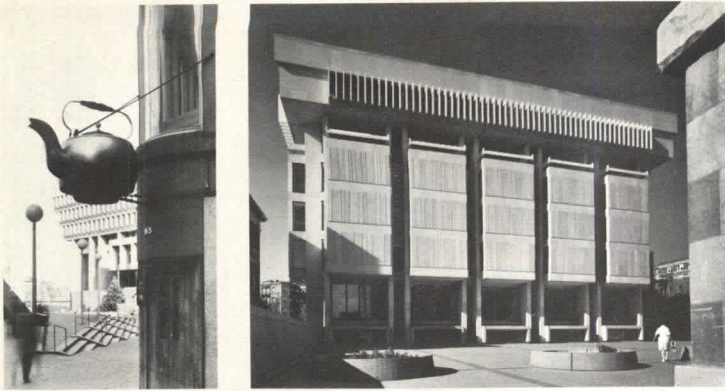
Most of the buildings we have seen so far have been either single or individual parts of larger assemblies. The development of multiple complexes has taken place largely in the universities and can be found in some profusion across the Charles. But a very appropriate group can be seen from the river at Boston University. The Union and Library buildings²⁶ (no controls; multiple complex) and the Law and Education and the Law Library buildings²⁷ (no controls, multiple complex) are as different as their separate functions require. Yet they share an interlocking vocabulary that seems to welcome the usually embarrassing requirements of elevators and mechanical equipment into the fabric of the buildings. Tall colored vent panels acknowledge the patina of some older buildings that it would have been tempting but difficult to ignore.

A recent addition to multiplicity at the corner of Longwood and Brookline Avenues, the Children's Inn (Medical Center)²⁸ (no controls; multiple complex), brings concrete technology to a new high. Its polished parts slip together like a toy puzzle with an infinite number of solutions with medical offices, a bank, shops, a store and a motel for parents with children in the hospital. Presumably this experience will re-emerge in TAC's denser, more urban solution to the New England Medical Center in the South Cove/Chinatown renewal project.

At Harvard Medical School, the Countway Library²⁹ (no controls; open system) combines something of this new structural comfort with more formal limestone surfaces to keep company with a gang of marble monuments that got there first. We are instructed by the absolute integrity with which materials are used within and without, a lexicon that does justice to the precision of its scientific literary context.

The collective evidence of these few examples will, I believe, be reinforced by other work in and around Boston. There is certainly a syndrome, however much influenced by individual work in other parts, that can be identified with the region and its time. Free of the limitations usually associated with a style, this vocabulary of pre- and site-cast concrete, used with indigenous brick and stone, permits flexibility of scale, expression, space, scope, direction and pace. A wealth of intriguing shapes reached through willingness to accept the unexpected and tame it with a versatile, consistent system shames the form-trippers' gay excursions into an architectural future that never was.

What can this seemingly deliberate rebuttal to the slick patent facade contribute that glass and metal narcissism cannot? A new kind of continuity into which past and future technologies can be woven, as fast as the poignant demands for an honorable



The steaming teakettle, perking outside Nathan Sharaf's Oriental Tea Company; Countway Library (right), integrity within and without; New England Aquarium (bottom), ready to grow.

environment require. It seems far more receptive to new developments in prefabrication of component parts and at the same time capable of fulfilling the expectations of more democratic patterns of decision making.

Having said all of this, it would be convenient to find some easy way to describe the breed of architect that inhabited these years of change. The first wave, trained in the ambivalence of the '30s, had to weather the hostility and confusion released by a new architectural ideology. Armed with pragmatic and often inspired solutions, they liberated an indifferent and visually illiterate clientele. Never far from the schools, they inspired the postwar crop of architectural students to join them, back to back, in a shoot-out with the bad guys: reactionary clients, builders, manufacturers and public officials. Today, students are emerging in close order behind ranks of computers prepared to

lock transistors with a superclient created, however unwittingly, by their professional predecessors. Small wonder that they can find few footholds for their own crusades, except in the area of public morality for urban decisions.

Aside from the quality of their individual architectural works, the profession has contributed to an important phenomenon which has been essential to much that has happened. Because they shared a common architectural tradition *based on faith in the design process*, the arbiters of design controls acted in a parallel sense, as architects for a larger client of which the immediate client was but a part. The effect has been startling: Rather than stifle creativity, it has fostered a keen spirit of competition between architect-developer teams to capture coveted development parcels with daring and endearing concepts and amenities. As long as design review is carried out in the spirit of broadening the range of insight and information that can be brought to bear on environmental decisions, it will become the architectural equivalent of a new social emphasis on greater individual freedom and responsibility. This cause has been ably supported by the BRA Urban Design Staff, which has primary responsibility for passing on the thousands of big and little matters that go into making a city.

Two parallel activities, the Harvard-MIT Joint Center for Urban Studies and the Boston College Citizen Seminars brought sociologists, businessmen, planners, public officials, architects and politicians together over issues that had long festered on both sides of the university brain curtain.

For BRA throughout this article, it would be safe to say "Ed Logue" instead (Edward J. Logue, former redevelopment administrator for the Boston Redevelopment Authority and now head of New York's Urban Development Corporation). He created a climate for good architecture, then challenged the architects to make the most of it. He hitched it all up to the drives of practical businessmen and enlightened politicians, encouraged his responsible critics to climb aboard, absorbed the misdirected ire of an already disaffected populace and kept the punches and the payments above the belt. He should happen to your city!

Boston is now a city that has lost its innocence. In 1954 it could have afforded to make mistakes through a lack of information, vision, insight, philosophy or integrity. The progress we have made, however fragmented, was because we were committed to values that had to be shared by all. We have stumbled at least once and may again in the Back Bay. If we do, the fall will be that much farther because we possess the knowledge to avoid the kind of mistakes that will make it necessary to fight the whole damn battle over again! □

Architectural Credits

1. State Office Building. Emery Roth & Sons.
2. Eastern Airlines Terminal. Minoru Yamasaki & Associates; Desmond & Lord, Inc., associated architects and engineers.
3. Charles River Park. Gruen Associates.
4. State Service Center. Paul Rudolph Architect, coordinating architect. Division of Employment Security Building: Shepley Bulfinch Richardson & Abbott; Mental Health Building: Desmond & Lord, Inc.; Paul Rudolph Architect, associate architect; garage, plaza and landscaping: Paul Rudolph Architect.
5. Federal Office Building. The Architects Collaborative.
6. Center Plaza. Welton Becket & Associates.
7. Court House Annex. Desmond & Lord, Inc.
8. Sears Crescent. Stull Associates.
9. Sears Block. F. A. Stahl & Associates.
10. Government Center Garage. Samuel Glaser Associates; Kallman & McKinnell, Associated.
11. Boston City Hall. Kallman, McKinnell & Knowles; Campbell, Aldrich & Nulty; LeMessurier Associates Inc.
12. New England Merchants National Bank Building. Edward Larrabee Barnes.
13. Boston Building. Emery Roth & Sons with Pietro Belluschi, FAIA.
14. State Street Bank Building. Pearl Street Associates: F. A. Stahl & Associates; Hugh Stubbins & Associates; LeMessurier Associates Inc.
15. New England Aquarium. Joint venture: Cambridge Seven; LeMessurier Associates Inc.; Francis Associates.
16. First National Bank. Campbell, Aldrich & Nulty.
17. Blue Cross & Blue Shield Building. Paul Rudolph Architect; Anderson, Beckwith & Haible.
18. Old City Hall. Gridley J. F. Bryant; Arthur Gilman.
19. Old City Hall, renovations. J. Timothy Anderson & Associates; Architectural Heritage, Inc.
20. Government Center station of the rapid transit system. Kallman & McKinnell, Associated, kiosk; Geometrics, underground.
21. Arlington Street station of the rapid transit system. Cambridge Seven.
22. Prudential Center. Charles Luckman Associates.
23. John Hancock Tower. I. M. Pei & Partners.
24. Copley Square. Sasaki, Dawson & DeMay.
25. Addition to the Public Library. Philip Johnson & John Burgee and Architects Design Group, Inc.
26. Union and Library buildings, Boston University. Hoyle, Doran & Berry; Sert, Jackson & Associates, associated architects.
27. Law and Education and Law Library buildings, Boston University. Sert, Jackson & Associates; Edwin T. Steffian.
28. Children's Inn. The Architects Collaborative.
29. Countway Library. Hugh Stubbins & Associates.

1970 Honor Awards

Report of the Jury

FRANCIS D. LETHBRIDGE, FAIA, Chairman
EDWARD C. BASSETT, AIA
NATHANIEL C. CURTIS JR., FAIA
HUGH NEWELL JACOBSEN, AIA
I. M. PEI, FAIA

The largest number of entries since the inception of the awards program in 1949 was received this year. From the 478 buildings and groups of buildings that were submitted for judgment, 14 have been selected as Honor Award winners for 1970.

They range in type from a vacation house to an urban center for the performing arts but share certain characteristics: a recognition of the inherent qualities of the site, a clear and consistent use of materials, the development of form as a response to the nature of the problem, and that indefinable extra measure of wit, art or skill that lifts a superior performance above those that are merely competent.

Following the precedent set last year, each of the buildings was visited by at least one of the jurors prior to its ultimate selection. That this was no mere formality is evidenced by the fact that a full 30 percent of the preliminary group selected for awards failed to measure up to this final review for various reasons that were not readily apparent in the submitted photographs and plans.

The general quality of the entries was good, an encouraging thing to report and one that made the task of the jurors more pleasant but not less difficult. No jury system is without its faults but, at the risk of disillusioning those who might take comfort in a belief that the process of selection is altogether capricious or arbitrary, it may be illuminating to give some description of the procedure that was followed on this particular occasion.

Each of the jurors first examined each of the individual entries, making notes and scoring the submittals on previously prepared forms, a process that consumed the first day and a half of the three-day session. A tally was then made of those entries that had independently received a superior rating from all five jurors, or four, or less, including all that had been judged outstanding by at least one of the jurors. The color slides of all projects that received two or more votes were then projected and examined in full, and were discussed by the jury as a whole. The brochures of all entries that had received one vote, plus those others that any juror felt should be held for further review, were then examined during the evening session of the second day and those that had gained two or more votes were projected and dis-

cussed. The group of 20 potential Honor Award winners was selected on the third day of the meeting, pending visitation, and the jury reconvened two months later for the final disposition of awards. No juror exercised the power of veto, and a simple majority vote governed the process of selection in each instance.

The presence of four single-family residences in this select company of award winners might cause concern to those who consider them a socially irrelevant building type in today's world. That this is not the case can be seen in the fact that each is, in its own way, a concise and lucid essay on the relationship of a building to its site, its neighbors and an expression of individuality.

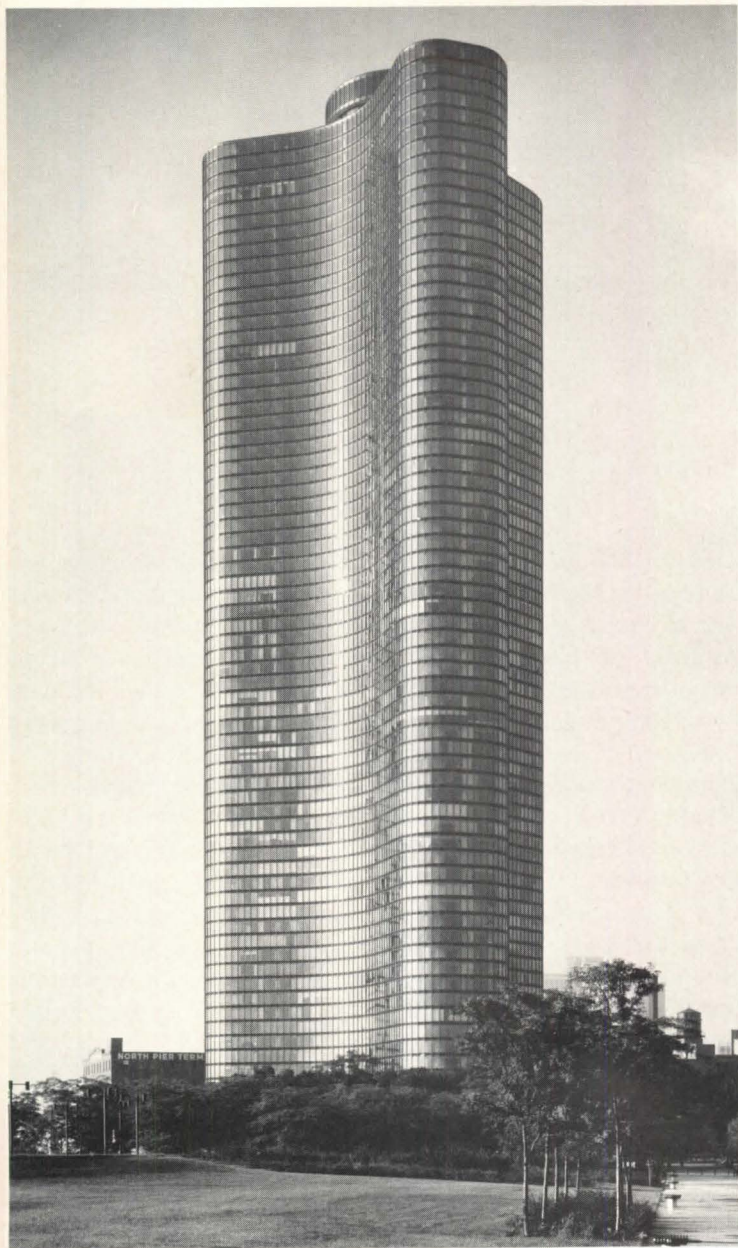
Taken collectively, they are a healthy antidote for an overdose of ill-sited unrelated and inhuman buildings. The jury was disappointed that relatively few larger residential projects were submitted. The best of these failed, in the opinion of the jury, not through lack of effort or professional capability but because the program itself posed conditions that could not be met with sufficient respect for the amenities of urban life.

Several entries gave evidence of the role that the conservation of physical resources can play in the process of creative urban design. Two of the award winners were chosen from this category: one, the restoration and readaptation of an important and historic public building to a new use as a national cultural asset; the other, an imaginative reconstruction of an existing building complex into a vital, lively commercial center. The elegant and finely detailed pedestrian bridge that was honored with an award is also an illustration of adaptive uses that can prolong and revive the life of existing buildings within the heart of the city.

The two elementary schools selected for awards deserve some special comment. Quite different as they are, in concept and in execution, they impressed the jurors with a special sense of concern for the people who will be spending a good part of their lives in them. Both are schools of a positive character, schools that will continue to interest, delight and instruct children for as long as they stand, largely by virtue of that extra quality and spirit that the communities were willing to seek and their architects able to deliver. □

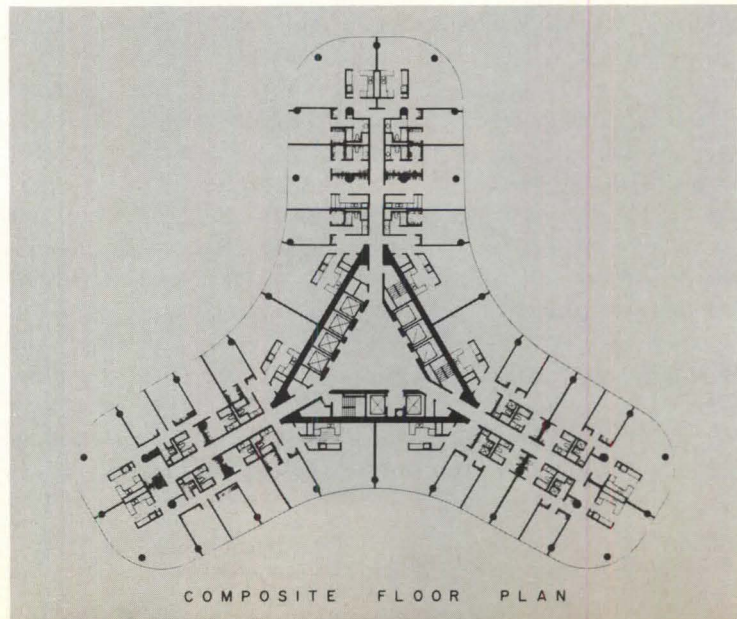
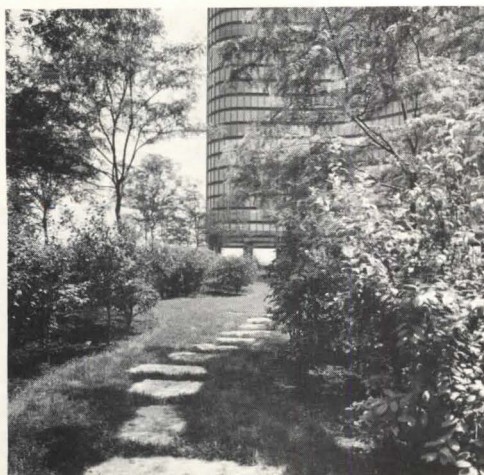
SCHIPPOREIT-HEINRICH, INC.

Lake Point Tower Chicago, Illinois



The problem: to design a self-sufficient residential community, including 900 luxury apartments, commercial and recreational facilities and attendant parking for 700 cars; to provide a plaza level that can be expanded horizontally should adjacent property be developed in the future; to respect the unique quality of the site on Lake Michigan, providing a natural park to establish a balance with the urban environment. Said the jury: "A very large highrise apartment building which, by choice of form, elegance of mass, the choice and proper detailing of just the right kind of sheathing and the accident of its position in the city, goes beyond architecture per se and creates instead a fantastic image which is anonymous, technological and, above all, a visual instrument responding to the sky and light."

Associated Architects: Graham, Anderson, Probst & White; **Structural Engineers:** William Schmidt & Associates; **Mechanical and Electrical Engineer:** William Goodman; **Landscape Architect:** Alfred Caldwell; **General Contractor:** Crane Construction Company.

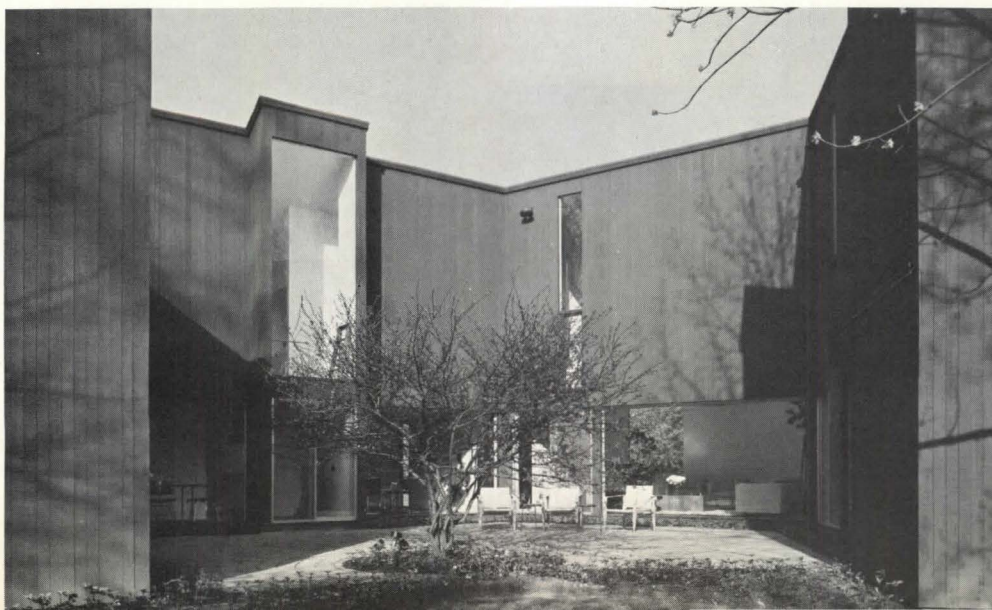
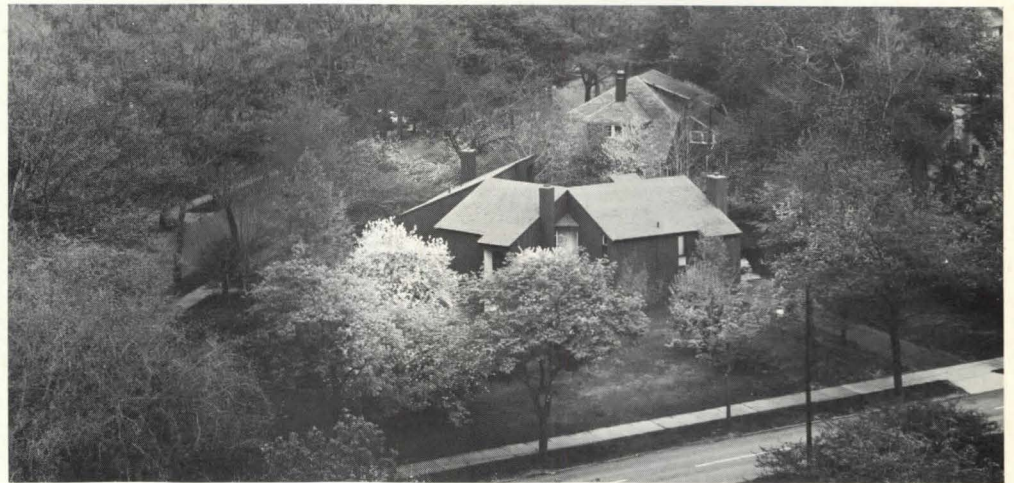
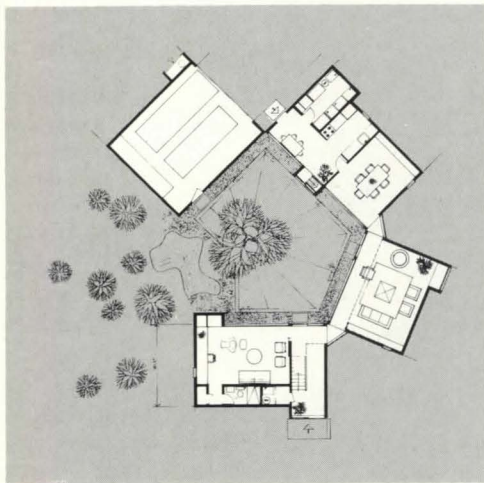


DON M. HISAKA & ASSOCIATES

Hisaka Residence
Shaker Heights, Ohio

The problem: to relate a contemporary residence with the conventional 30- to 40-year-old houses in the neighborhood; to achieve a design on a difficult building site which would respect a rigidly enforced setback ordinance and clarify the spatial arrangement of the neighborhood; to provide an interior court for private outdoor living for a couple with two teenage children. Said the jury: "This is a house whose qualities of simplicity and understatement are deceptive. To recognize the species is to know that this solution is the result of an inordinate amount of work, far more than shows. An interesting and difficult site, the desire to relate to adjacent homes, the need for outdoor privacy, the need for a reasonable amount of living space and an obviously austere budget have all been brought quietly and with great delicacy into handsome balance."

Mechanical Engineers: George Evans & Associates; **Electrical Engineer:** William B. Ferguson.



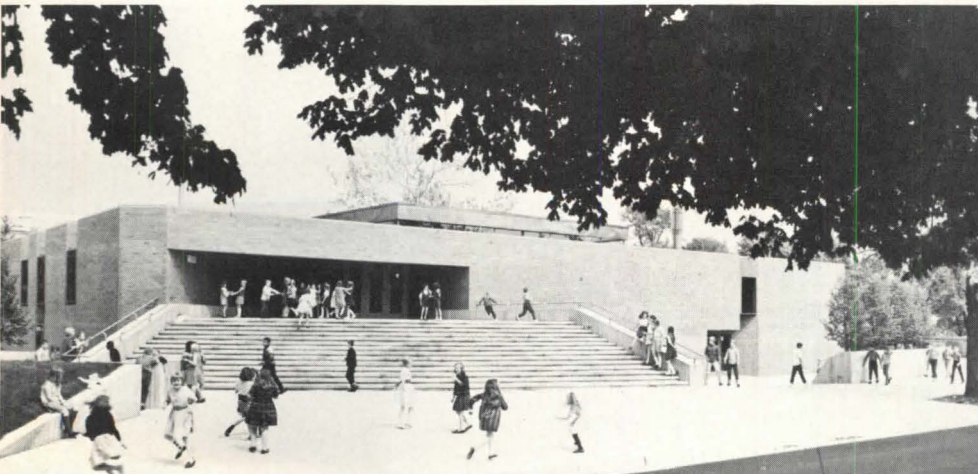
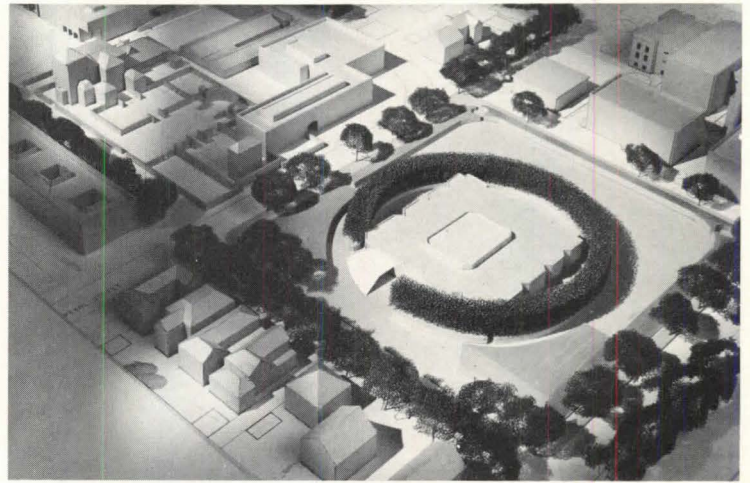
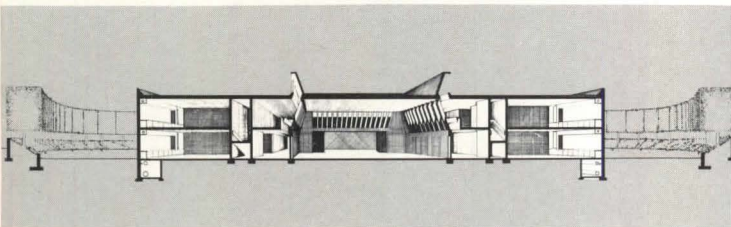
GUNNAR BIRKERTS & ASSOCIATES

Lincoln Elementary School
Columbus, Indiana



The problem: to create a compact elementary school building for pupils from kindergarten through grade 6, with special classes for mentally retarded and physically handicapped children; to make maximum use of a moderately sized site in the center of a small city, allowing for multiuse of the school as a place for public meetings, civic programs, play facilities and a public park after school hours; to use the total site and building as a concrete expression of an educational concept where architecture and playground are designed to stimulate, challenge and arouse imagination and curiosity. Said the jury: "This building has a tightly controlled and formalized design attitude which extends completely into a small site, to the extent that the building and site are individually self-supporting and dependent. Neither could succeed without the other. Plan, section, general development and detailing are very original in quality. The building succeeds admirably both as a school and in the self-effacing way in which it fits into a domestic-scaled environment."

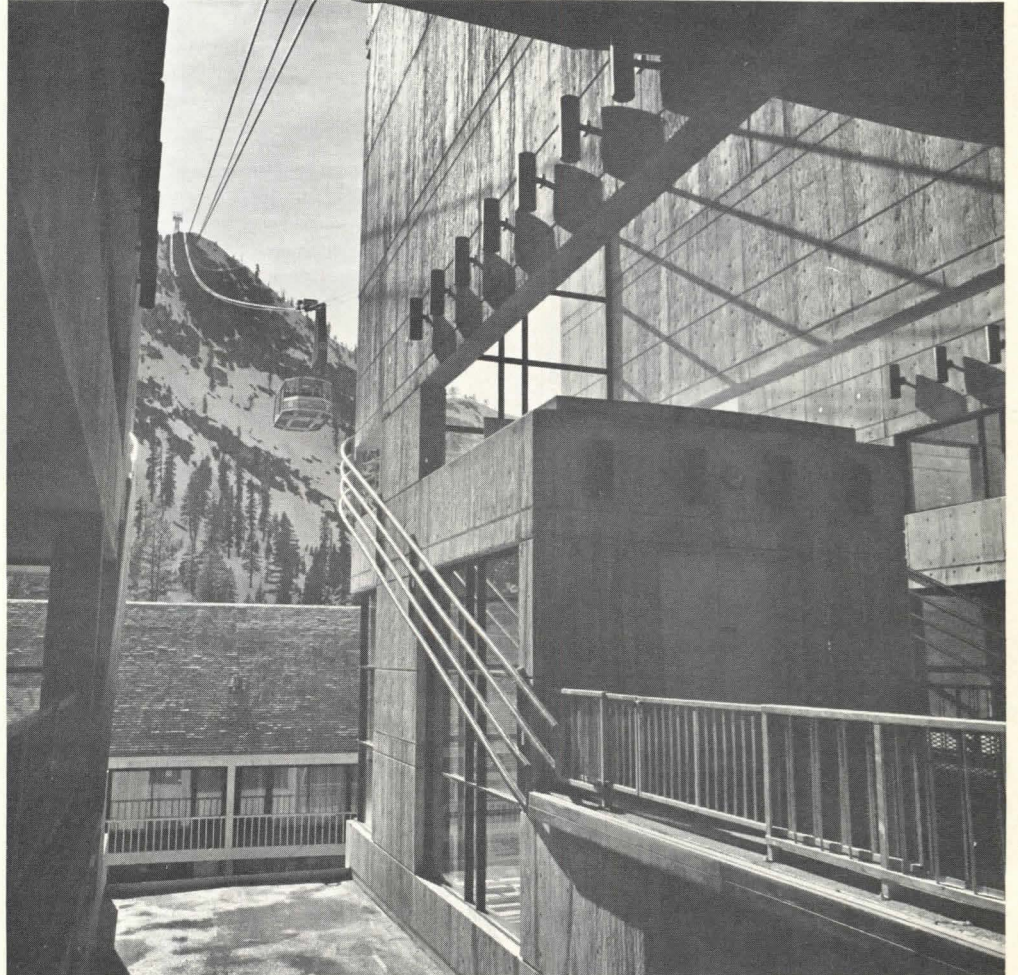
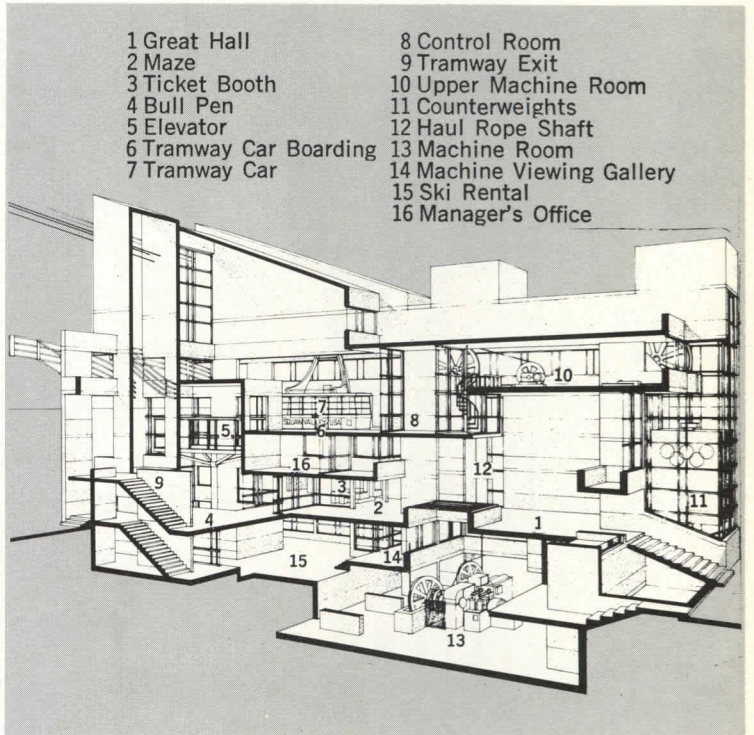
Supervising Architect: Sieco, Inc.; **Structural Engineers:** Holforty, Widrig, O'Neill & King; **Mechanical and Electrical Engineers:** Hoyem, Basso, Adams & Martin; **Landscape Architects:** Johnson, Johnson & Roy, Inc.; **General Contractor:** Dunlap & Company, Inc.



Squaw Valley Cable Car Terminal
Olympic Valley, California

The problem: to move comfortably, effortlessly, efficiently and rapidly a continuous flow of 1,100 skiers per hour from a parking lot at grade, through ticket booths and to a boarding level high enough above grade to accommodate the essential moving counterweights without expensive waterproofing of their shafts; to encompass all in a fireproof, earthquake-resistant building which houses and supports the motive machinery for 120 passenger cable cars rising 2,000 feet over a distance of 7,000 feet in less than five minutes per trip while at the same time acting as anchor for the entire system; to provide ancillary facilities, such as a ski rental shop. Said the jury: "This building is ably handled, fulfilling its program well and existing, in addition, as a handsome structure. It is a direct reflection of the mechanical requirements of the lift equipment and of the stringent demands of handling large numbers of skiers."

Structural Engineers: Abraham Woolf & Associates; **Mechanical Engineers:** T. Genovesi Associates; **Electrical Engineers:** Thompson Engineering Company; **General Contractor:** Campbell Construction Company.



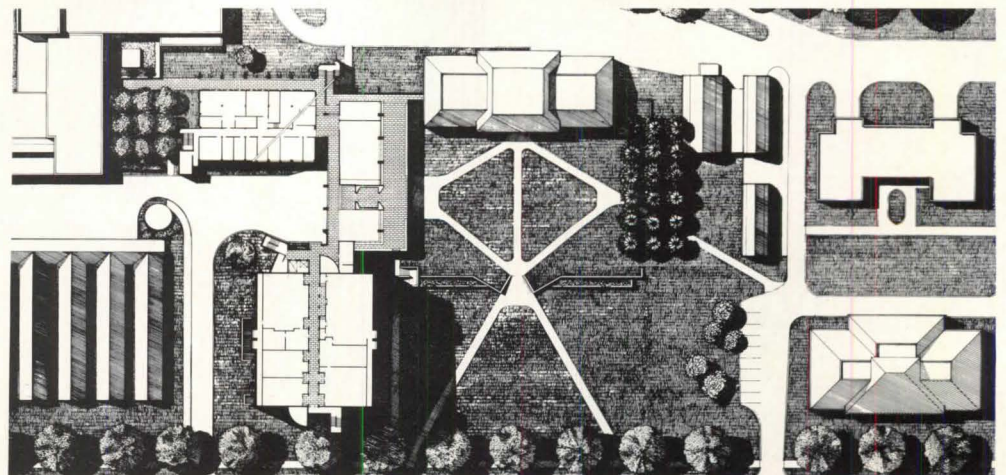
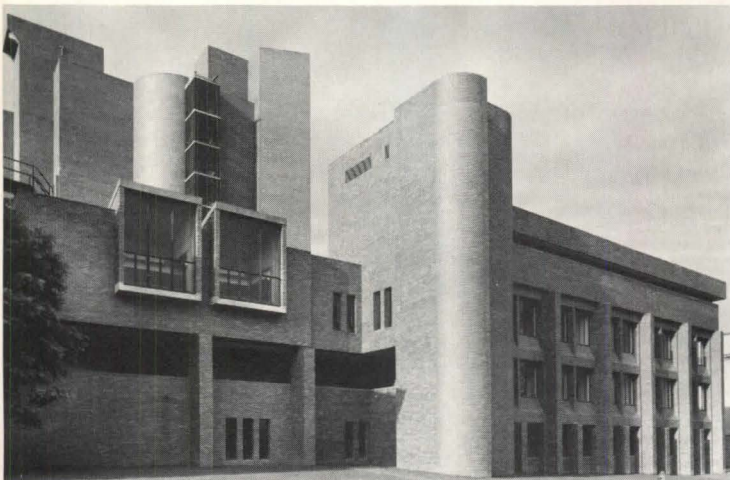
ULRICH FRANZEN & ASSOCIATES

**Bradfield and Emerson Halls
Cornell University
Ithaca, New York**



The problem: to achieve on a strict budget functional and circulation order and architectural articulation in a complicated program containing 210,000 square feet of graduate research laboratories, administrative offices, undergraduate teaching laboratories and related space; to gain maximum efficiency of controlled environment, flexibility for research projects, an integrated system of laboratory services and air and environmental controls, all based on flexible modular laboratories; to relate the structure to existing buildings. Said the jury: "An excellent piece of architecture. The forms and details are handled with confidence and finesse, and there is enough of the architect's personality present in various decisions to give the building a certain, not so much eccentricity as personality, so that it avoids the dryness and static classicism present in much of the 'all brick' idiom."

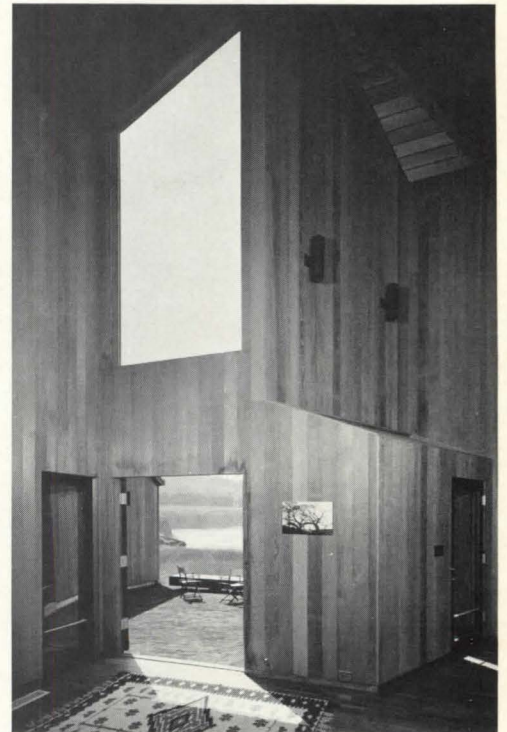
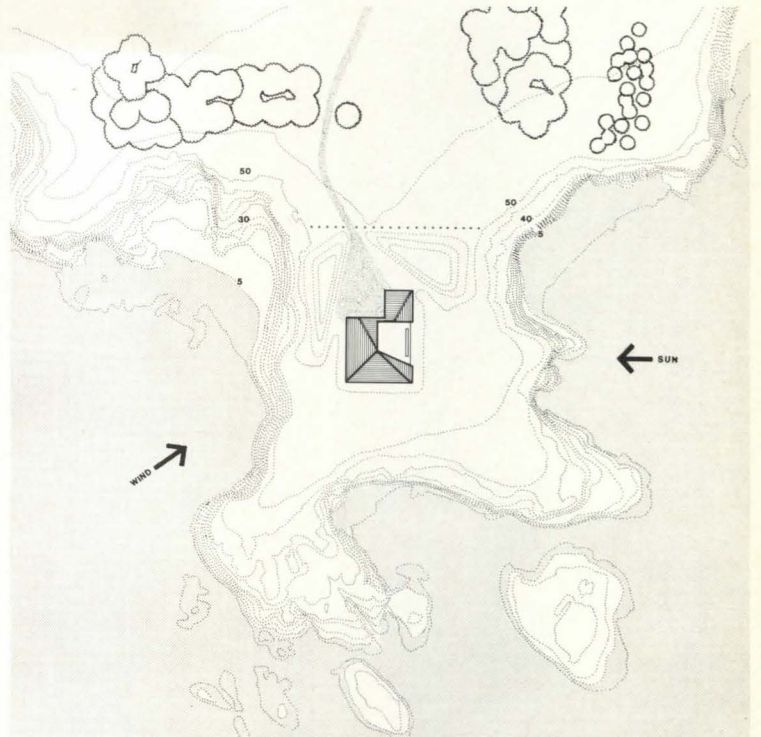
Structural Engineers: Weiskopf & Pickworth; **Mechanical and Electrical Engineers:** Cosentini Associates; **General Contractor:** Irwin & Leighton, Inc.



Milligan Vacation House
Sea Ranch, California

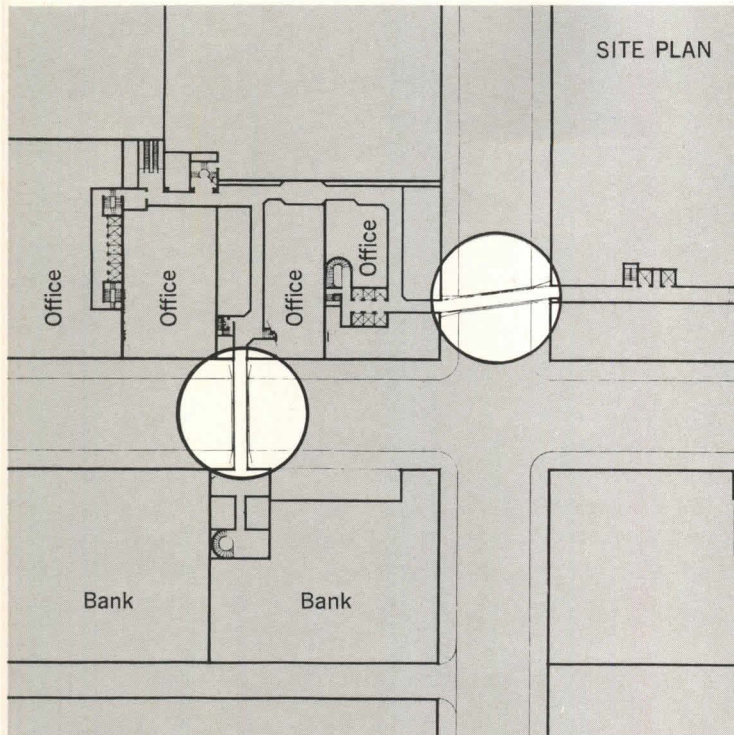
The problem: to site a vacation house for 12 or more persons unobtrusively into a magnificent landscape on an exposed peninsula jutting into the Pacific; to shape the house to form a lee from north-west summer winds and to orient patio walls to function as a sun trap; to isolate children's dormitories from central space to allow various age groups to use the house together or separately. Said the jury: "Placed on a site of exquisite beauty, this house is an excellent example of architecture being appropriately modest. Well planned and detailed, quiet in its fenestration, the most important single element is the roof. It has been achieved by the simple device of removing portions from a pyramidal shape as dictated by the needs of plan and massing. The result is a strong and coherent form that holds the house firmly and closely to the earth. Excellent restraint has been shown in respect to landscaping; the house sits easily and naturally in the California meadow grass."

Structural Engineers: Hirsch & Gray; **Mechanical and Electrical Engineers:** O'Kelley & Schoenlank; **General Contractor:** Matthew D. Sylvia.



THE CERNY ASSOCIATES, INC.

Pedestrian Skyways Minneapolis, Minnesota



The problem: to connect the clients' properties in a major metropolitan commercial area through two pedestrian bridges; to provide an expanded second-floor concourse, linking five square blocks of the downtown area in an all-weather pedestrian circulation system. Said the jury: "Very few architectural elements suffer the lack of concern for architectural quality accorded to the hundreds of enclosed footbridges that join buildings over our city streets. The design quality of this bridge makes it not only worthy of celebration but, one hopes, worthy of emulation as a prototype. Especially important in this case are those details which permit the design to remain intact while at the same time adjust to changes in elevation and alignment."

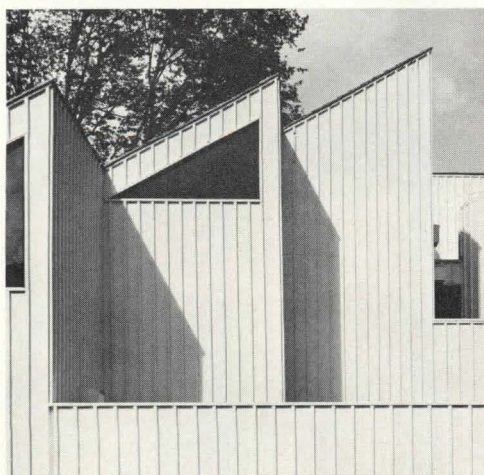
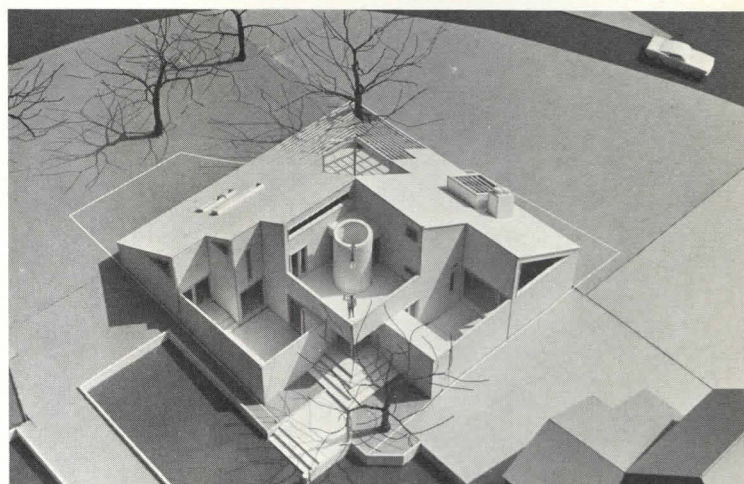
Structural Engineers: L. J. Meisch & Associates; **Mechanical and Electrical Engineers:** The Cerny Associates, Inc.; **General Contractor:** Naugle-Leck, Inc.



Phillips/Brewer Residence
Chevy Chase, Maryland

The problem: to site a home for three generations of a family on a small suburban lot, thought unbuildable, off an alley cul-de-sac; to assure interior and exterior privacy through maximum closure against the outside and interrelated open spaces inside; to reflect the broken massing and angles of neighboring houses through the exterior design. Said the jury: "This little house is a tour-de-force, a 'once only' design which springs directly from the program and the problems posed by an almost impossible site. The plan and section are not only creative but almost fiendishly ingenious. They play their own personal and up-to-date architectural game but at the same time continue the scale and quality of the colonial neighbors and manage to incorporate the two major trees as intrinsic parts of the house."

Structural Engineer: James Madison Cutts; **Landscape Architects:** Stock Brothers; **General Contractor:** Lester Schelpark.



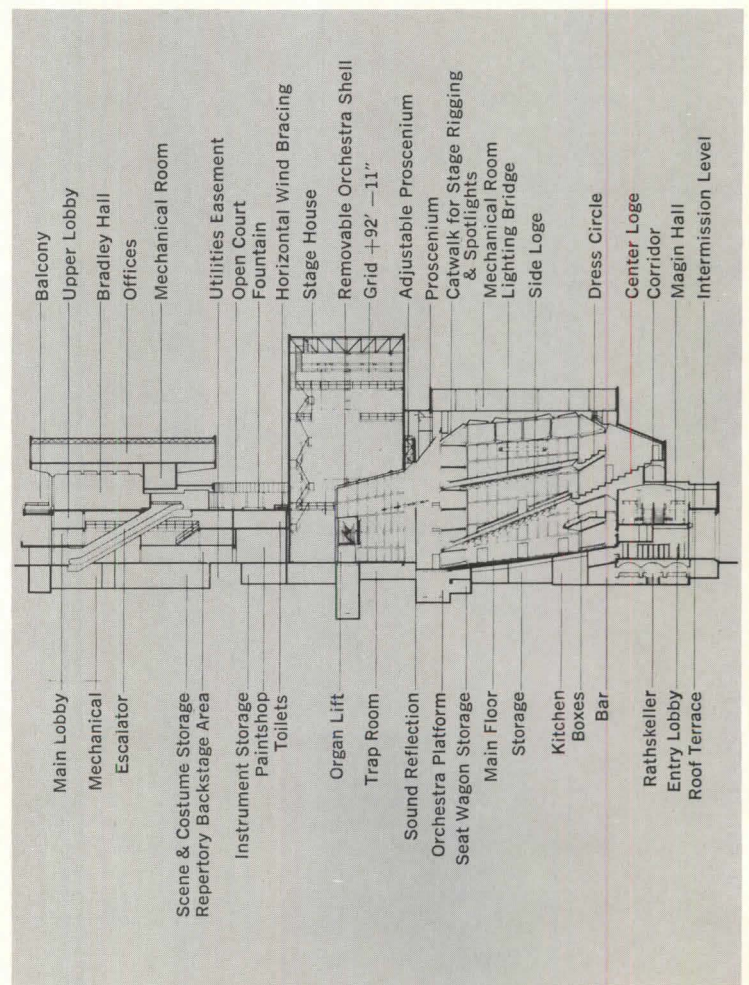
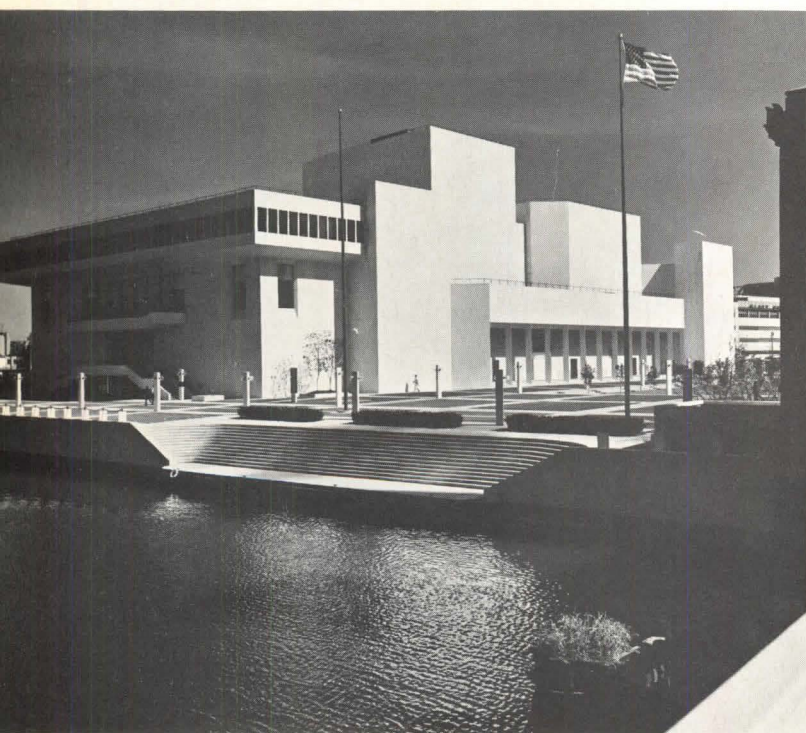
HARRY WEESE & ASSOCIATES, LTD.

Milwaukee Center for the Performing Arts
Milwaukee, Wisconsin



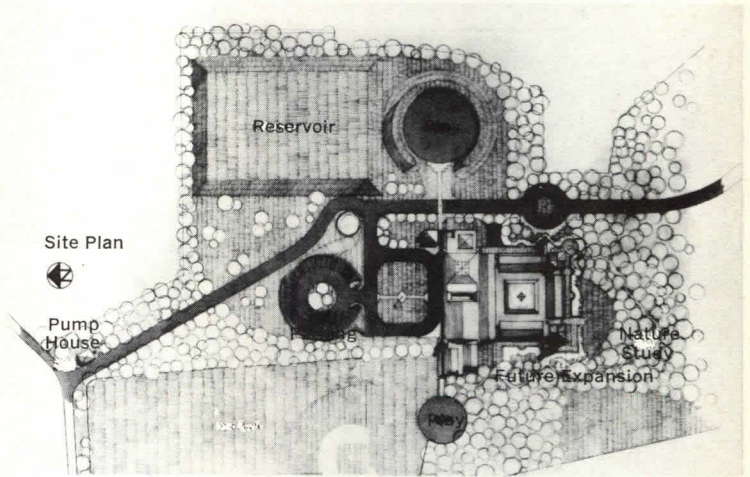
The problem: to create within one structure three separate halls for the performing arts with acoustical treatment assured in architectonic forms; to design a free-standing building, usable in all seasons, with a sculpture garden, fountain, watergate stairway and grid of pedestrian walks; to develop the core of a complex which eventually will extend across the river to the county building half a mile away. Said the jury: "A large, complex, urban building of civic importance which incorporates a large concert hall, a small music chamber, a repertory theater, public spaces, a restaurant, considerable office space and the necessary backup of facilities all under one roof. The site development, particularly along the river, and the general aspect of the building's exterior are skillfully handled. The jury was impressed by the fact that the building's interiors have an air of festive opulence, a quality for which there is very little successful precedence in contemporary architecture."

Structural Engineers: The Engineers Collaborative; **Mechanical and Electrical Engineers:** S. R. Lewis & Associates; **Theater Design & Technology Consultants:** George C. Izenour Associates, Inc.; **Interiors Consultants:** Dolores Miller & Associates; **Landscape Architects:** Office of Dan Kiley; **General Contractor:** Klug & Smith Company.

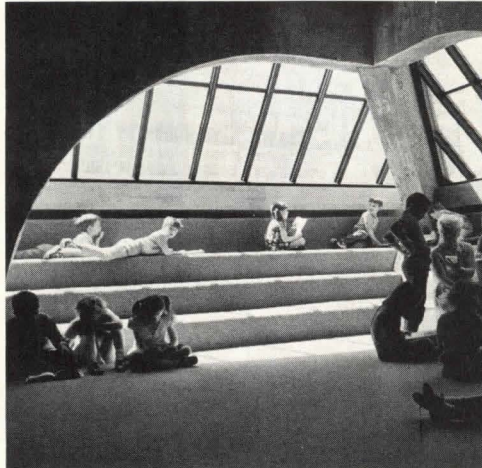
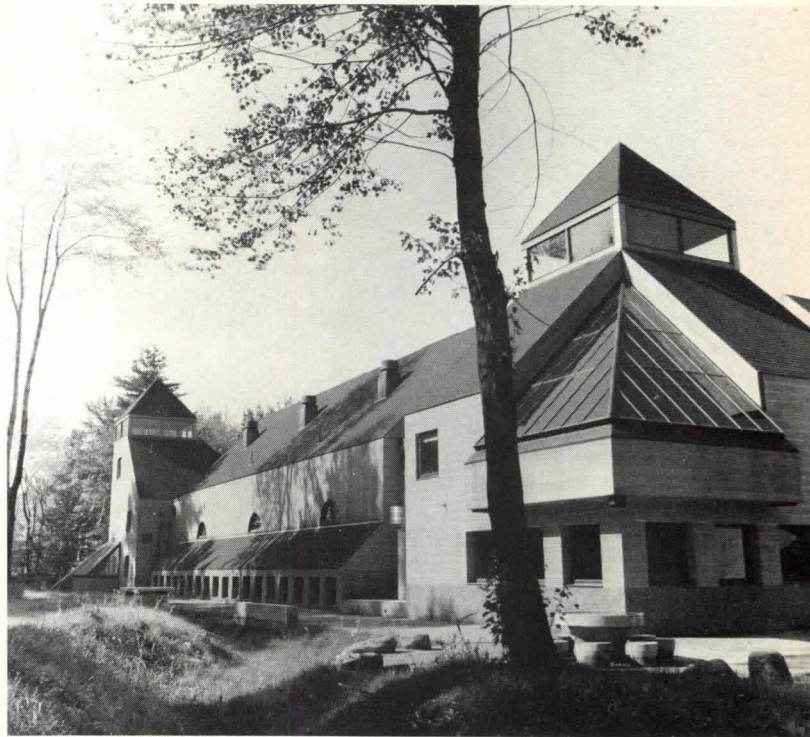


**Bancroft Elementary School
Andover, Massachusetts**

The problem: to design a public school for 550 pupils (kindergarten through grade 6) with special spaces for some mentally retarded and physically handicapped, as well as exceptionally bright children; to emphasize flexibility with classroom areas housed in three two-story lofts, with an open split-level relationship to a large library-resource center; to provide accommodations for use of audio-visual aids and space for administration, cafeteria and gymnasium isolated from instructional area but convenient for public use. Said the jury: "We found this building a great delight. Somehow it manages to be fanciful and imaginative within the child's context without becoming overtly corny. We must admire a building that can find such rapport with its users and still survive as architecture. This is a very nifty building — in less capable hands it could have been a disaster — and deserves a special commendation for crawling out on an architectural limb."

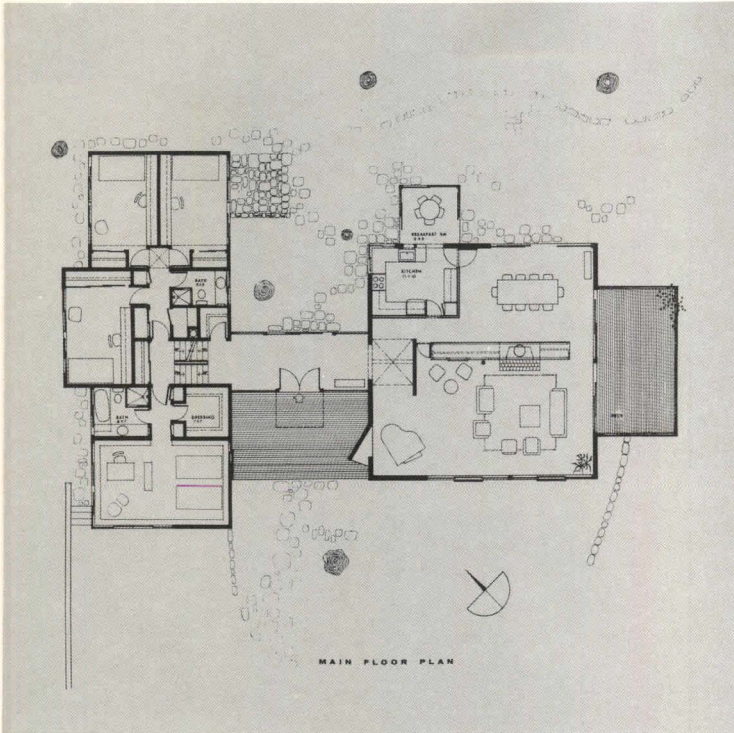


Structural Engineers: LeMessurier Associates, Inc.; **Mechanical Engineers:** Carvounis Associates; **Electrical Engineers:** John W. King & Associates; **Landscape Architect:** William D. Warner; **General Contractor:** Leominster Engineering Co., Inc.



DONALD E. OLSEN, AIA

Ruth Residence Berkeley, California



The problem: to provide a family of five with a strictly budgeted but spacious home on a site accessible only via a 70-foot-long bridge; to preserve giant old live oaks even to the provision of a special foundation to prevent severing the broadly spreading tree roots; to assure the owner privacy from, as well as proximity to, the children's sleeping area. Said the jury: "A good house whose historic precedent is related more to the east than to northern California. There is a sure and knowing hand in the massing, quality of space and the general detailing — thoroughly comfortable and at home in the employment of a recognizable (by now, almost history book) contemporary vernacular. The house has been sited gracefully, adjusting easily and comfortably to the terrain and opening up appropriately to the wooded area that surrounds it."

Structural Engineer: Jack N. Kositsky; **Landscape Architects:** Peter Walker and Sasaki, Walker & Associates; **General Contractor:** Charles Mee.

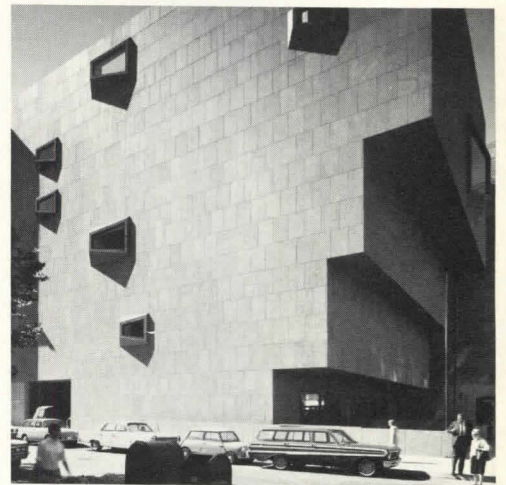
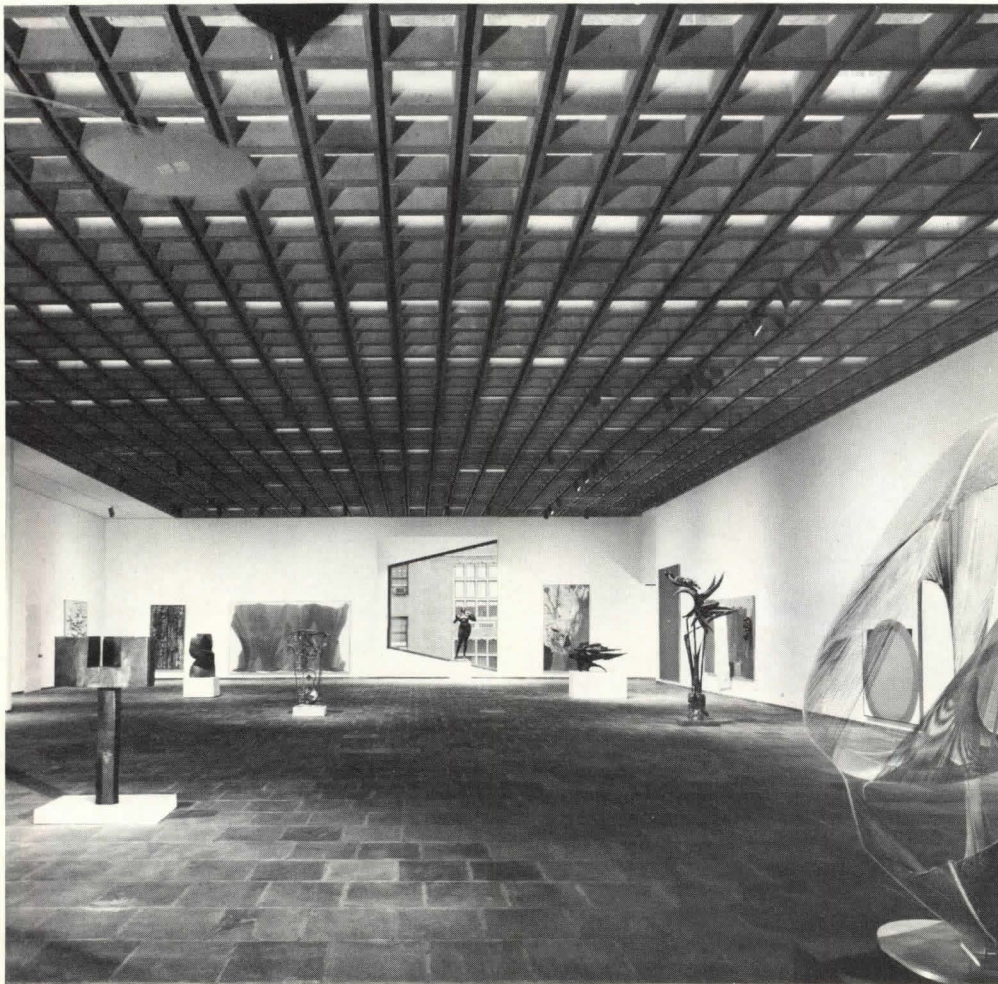
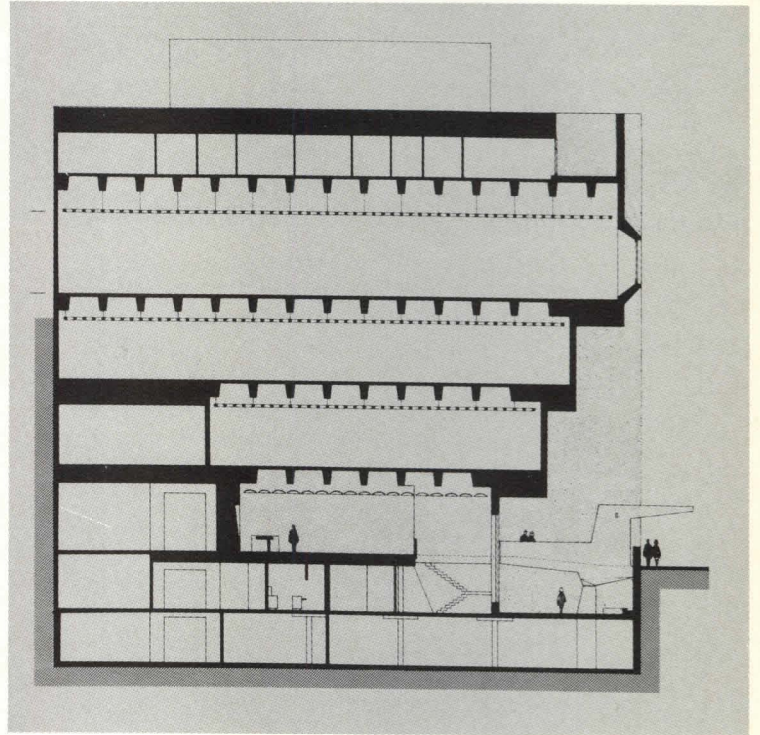


MARCEL BREUER, FAIA, AND HAMILTON SMITH, AIA

Whitney Museum of American Art
New York, New York

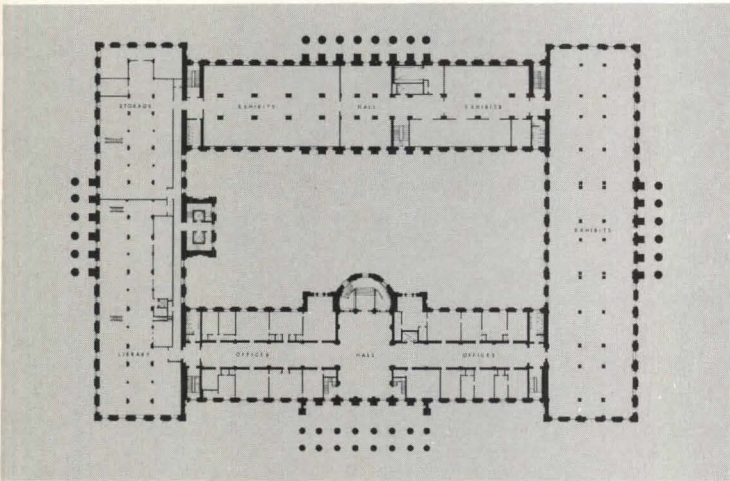
The problem: to house exchanging exhibitions rather than a permanent collection of art, thus determining the museum's philosophy, planning and details; to allow for the reception of movable wall panels and flexible lighting able to be rearranged for each new show; to relate the design of the building to the small (100x125 ft.) urban site in a large metropolis. Said the jury: "A bold manipulation of form and space, this building employs handsome materials appropriately and is beautifully detailed. The large exhibition hall is a particularly successful and attractive space."

Consulting Architect: Michael H. Irving, AIA; **Structural Engineer:** Paul Weidlinger; **Mechanical and Electrical Engineers:** Werner-Jensen & Korst; **General Contractor:** HRH Construction Corporation.



FAULKNER, STENHOUSE, FRYER & FAULKNER

**National Collection of Fine Arts
and National Portrait Gallery
Washington, D. C.**



The problem: to preserve an historic federal office building and transform it, without changing its essential character, into a museum for two major collections; to restore the exterior to its original appearance as faithfully as possible; to remodel the interiors in the spirit of Greek Revival or Victorian; to install unobtrusive modern plumbing, electrical work, airconditioning, fireproofing. Said the jury: "The old Patent Office, designed by and constructed under the supervision of William P. Elliot, Robert Mills, Thomas U. Walter, Edward Clark and others from 1836 to 1867, is a noble Greek Revival building with remarkable interior spaces that span a succession of architectural styles. A building that has been threatened with demolition many times, it is to the everlasting credit of the Smithsonian Institution, and other persons who successfully opposed its destruction, that it stands today at the threshold of a new and useful life."

Design Consultants: Victor Proetz (deceased) and Bayard Underwood; **Structural Engineers:** Gongwer & Kraas; **Mechanical Engineers:** Wilberding Company, Inc., Egli & Gompf; **Lighting Consultants:** Stanley R. McCandless (deceased) and Wm. M. C. Lam & Associates; **Landscape Architect:** Lester A. Collins; **General Contractor:** Grunley-Walsh Construction Co.

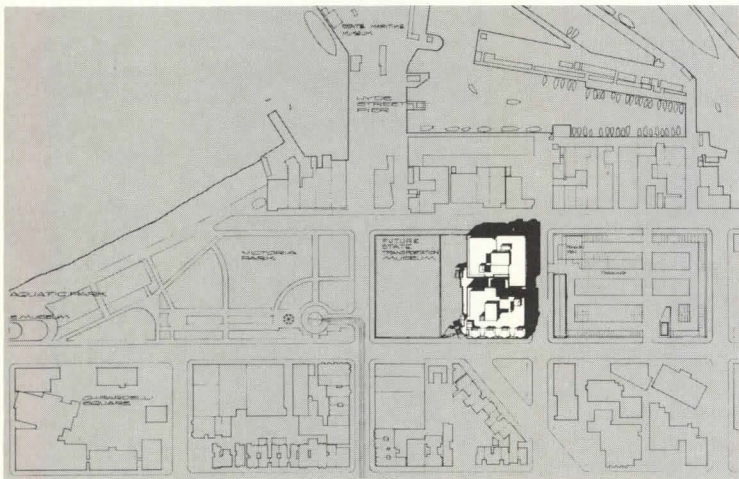
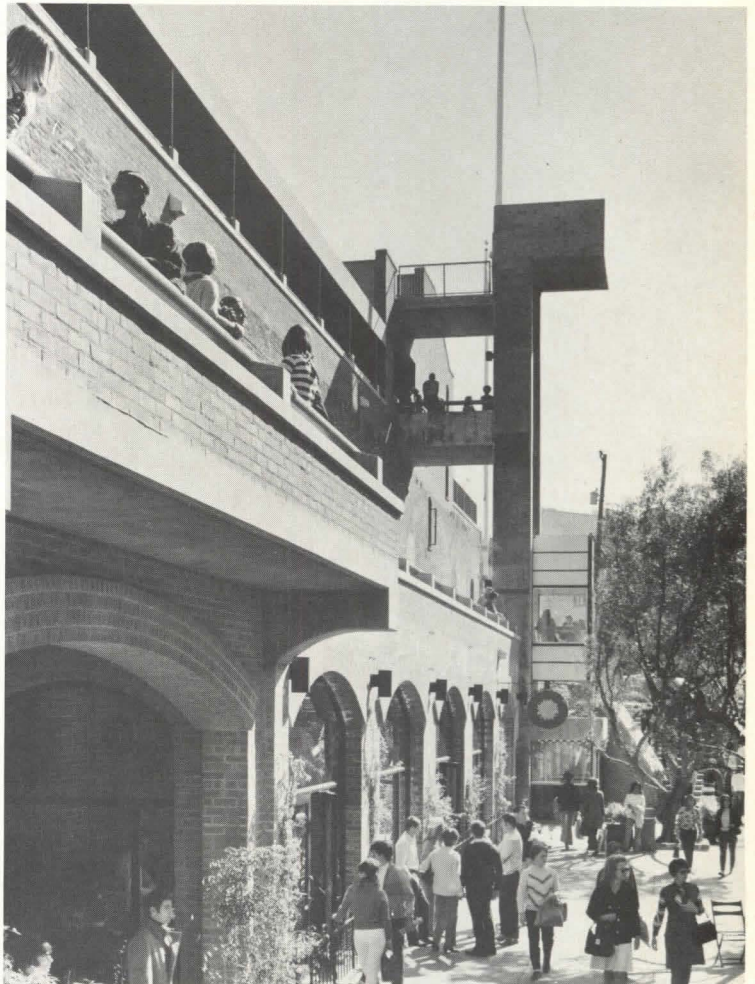


JOSEPH ESHERICK & ASSOCIATES

The Cannery
San Francisco, California

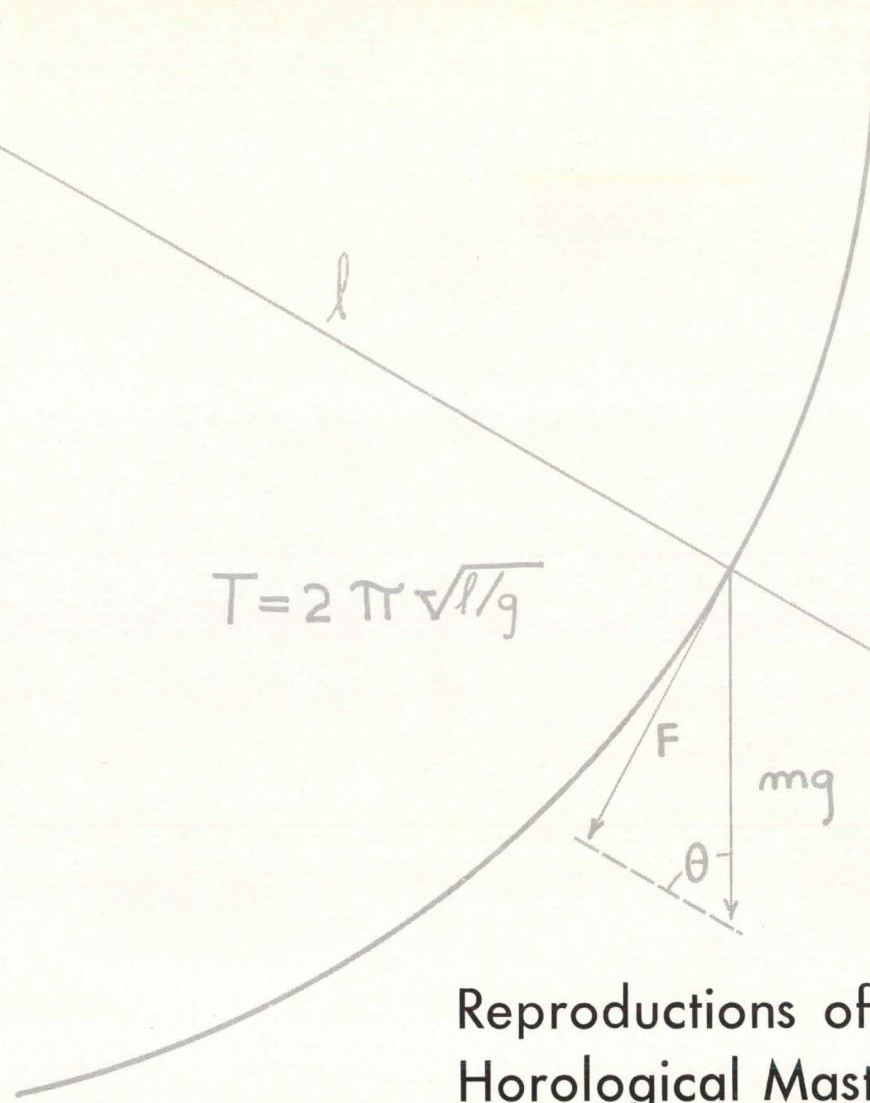
The problem: to convert a landmark in the center of San Francisco, an old masonry loft building that was spared in the 1906 earthquake, into a gay complex of eating, drinking, shopping and entertainment areas; to retain the rich and exciting feeling of an open-air marketplace with different levels, open arcades and escalators, broad stairs and an outdoor elevator. Said the jury: "A successful renovation which is restrained but imaginative — and made to look better through the presence of large numbers of people, sophisticated graphics and the animation provided by shops. The quality of good contemporary architecture, plus the existing qualities of time, familiarity and form, add up to more than new — more than old."

Structural Engineers: Rutherford & Chekene; **Mechanical Engineers:** K. T. Belotelkin & Associates; **Electrical Engineers:** Edward S. Shinn & Associates; **Landscape Architects:** Thomas Church & Associates; **General Contractor:** Greystone Builders.



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Counsel for Urban Change

UDDC President Ralph G. Schwarz examines the corporation's role and appraises its development for the first year of operation.

The crisis condition of our cities has exposed professionals and institutions involved in the decisions of urban organization to a form of acute sensitivity training. There are increasing signs that the effects have been beneficial. Primarily, emphasis has shifted from the definition of design problems to an active participation in the processes of innovative development in the total social context.

To articulate its commitment to this effort, The American Institute of Architects established in early 1969 the Urban Design and Development Corporation as an independent, action-oriented nonprofit organization. The mandate of the corporation is essentially to define and implement those processes of development in which productive social and human values are enhanced through a disciplined and creative exercise of design capability. In the blight of the cities, the professional recognizes that there has been a fundamental and cumulative distortion between the intent and the execution of urban design.

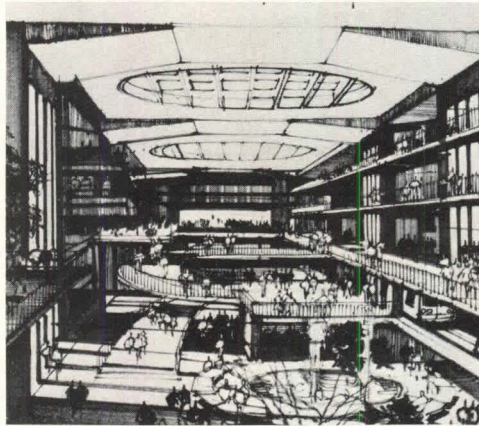
Significant development today is much more difficult than it has ever been. It is more expensive, more time consuming, more troublesome; it involves more political units, social groups, financial and government planners. UDDC, therefore, sees its role as fostering a creative assembly of professional skills and institutions through which major undertakings can proceed. In a year of operation, the board of trustees* has grown in numbers and increasingly reflects the independent, interdisciplinary role visualized in its conception.

Each project is seen to call for an individual and indispensable orchestration of sensitive development decisions on matters of

scale, of timing and of public relations, as well as a means of advocacy of the larger objectives of public interest. The test of social viability of any single project, it is recognized, is its total impact on the urban community.

Substantial progress has been made since February 1969 in organizing, in a "client" relationship, projects in four comprehensive areas: transportation, new communities, the center city and education.

Transportation: This area is recognized as essential to the productive development of the urban complex and frequently the cause of traumatic changes in the interrelated elements of the city. The corporation, therefore, is seeking to promote more effective and efficient distributor and circulation systems in



The internal horizontal circulation system proposed for the Mon Plaza project. Architects: Deeter, Ritchey & Sippel.

support of the center cities' transportation and development. The role of local, high-capacity horizontal circulation systems in downtown development is being studied as well as the mechanisms for catalyzing such development.

At the request of the City of Houston, the corporation analyzed the development problems and consequences connected with the proposed installation of an automated pedestrian circulation system to service a shopping and office-building complex.

In its soon-to-be released report, "A Study of Internal Circulation Systems for the Post Oak Urban Center," the corporation concluded that such systems will be critical to the viability of all comprehensive projects in the near future, but that the development of the process to implement plans of such complexity is a first condition of progress. UDDC is currently working with developers and the supply industry for such systems to help define their role in the client structure.

UDDC is advising Mon Plaza, Inc., and working with the Pittsburgh City Planning Department, Allegheny County Port Authority, the Allegheny Conference and Arthur D. Little, Inc. (consultants to the Department of Transportation) in efforts to stimulate public-private development of an optimum transportation plan which would serve to reinforce the downtown area — the Golden Triangle — in terms of innovative transportation solutions relating the proposed Mon Plaza project to the center city.

Center Cities: Attention has also been

given to the examination of Old San Juan as a prospective model of historic preservation. The UDDC hopes to identify institutional and economic mechanisms which may provide models for action in the salvaging of valuable historic mainland areas.

Similarly, UDDC is now under contract to the National Capital Planning Commission, the Citizens Association of Georgetown and a group of private investors in Washington, D. C. to join in a critical effort to assemble a development package which will offer an acceptable reconciliation of public, private and governmental interests while preserving the traditional historical and environmental values of the Georgetown area.

Alternatives to the esthetic and functional pollution of the center city have almost universally foundered in the cross currents of urban institutional structures. Much of UDDC's work of the past year has been in developing mechanisms to deal with the complex and urgent problems implicit in the restructuring of downtown areas.

In Washington, D. C., under contract to the National Capital Planning Commission, an extensive review of all existing programs of public works and related private projects to be completed on or before the bicentennial year of 1976 is underway. The UDDC report calls for the creation of a variety of implementing mechanisms by which the capital city may function as a vivid demonstration model or organization for action in improving its social, economic and land use functions.

New Communities: Recognition of the need for new communities has almost entered the stage of common consent, not only to meet the housing needs of the nation but to provide an orderly alternative to urban sprawl. The constituency for such development is, however, exceedingly complex given the huge costs, long lead time in planning and diversity of institutions involved. UDDC is, therefore, actively concerned with developing the conditions under which action on new town planning is feasible.

In Arkansas, for example, the construction of a \$25 million manufacturing facility 20 miles from the Little Rock metropolitan areas was seen by a number of that state's business leaders as the possible nucleus of a new, self-sustaining community. A suitable area for development has been identified and local and state support aroused.

Education: UDDC has participated with the Urban League and the AIA in designing and implementing a program of training on the job of 50 disadvantaged young people as architectural technicians.

In addition, a national college scholarship program, funded by the AIA and the Ford Foundation, has been designed by UDDC to open opportunities to disadvantaged groups for training on a professional level. It is hoped that encouraging participation in the profession will provide a continuing source of talent from those groups whose input is essential in modifying many urban problems.

In creating UDDC, the profession has given recognition to the need for far-reaching change and affirmed its intention to actively use its skills and strengths in forging productive processes for change. □

* Current trustees: Schwarz; Donald H. Lutes, FAIA; George A. Dudley, chairman of the New York State Pure Waters Authority; John Fisher-Smith, AIA; Jules Gregory, FAIA; Philip Hammer, president of Hammer, Greene, Siler Associates, Inc.; Sherrill D. Luke, director of the Urban Affairs Department of Aetna Life and Casualty; George T. Rockrise, FAIA; William L. Slayton, executive vice president of the AIA; Wayne E. Thompson, vice president of Environmental Development for the Dayton Hudson Corporation; Max O. Urbahn, FAIA; and Paul Ylvisaker, former commissioner of Community Affairs for New Jersey.

Schwarz and all the architects were members of the original Steering Committee, as was Archibald C. Rogers, FAIA, who has since retired.

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Environmental Renewal or Oblivion?



Excerpts from an address by the president of the Coca-Cola Company, J. Paul Austin, in which he delineates the firm's response to the problem of environmental pollution.

Not long ago I realized that my sons will reach my age sometime late in the first decade of the 21st century. A realization like this can bring a man up short. If you share my concern for the happiness, the hope and well-being that all today's children will find in their world of tomorrow, I know you'll agree that it's about time we began doing more than merely hoping that the world we leave them will still be hospitable to man. The hard facts, the stark evidence of environmental homicide that's emerging today indicates with painful reality that my sons may not find this a hospitable home at all.

Is this an overstatement of the imperatives for cleaning up our world? I don't think so. After all, what has man always done after he leached the land and so thoroughly fouled his water that it was no longer tolerable? He picked up and moved. He has always been able to find another, more hospitable home on land that would grow lush crops — in a

place where the streams hadn't yet been spoiled. But man can move no more. Not on this world, anyway.

[Ecologists tell] us that, as a people, we're firing rockets at the moon, while standing knee deep in our own garbage. They say man is the only creature who, apparently with great foresight and planning, dumps that same garbage into his drinking water.

But what are we going to do, now that we have some idea of the magnitude of the problems that face us?

The President of the United States, in his State of the Union message to Congress last January, called for a broad federal program designed to help clean up our land, air and water. He has since proposed legislation which would implement parts of this mammoth program. And this is not a bad beginning. But that's really all it is.

The government can't solve our problem. The government has been trying to do something about pollution and environmental decay since the first administration of Teddy Roosevelt.

The people, though, can do something. And it will take the best effort of every individual and corporate citizen to do what must be done.

Of course, there are the "doomsdayers" who say nothing will prevent "ecocide" — the death of the environment. Others claim that, since ecological destruction is so intimately linked with overpopulation and overproduction, the only answer is a zero population increase and a stable Gross National Product. And it may be that they are right.

But, before ultimate measures such as these are imposed on us, shouldn't we at least attempt some determined solutions of our own?

I'm convinced we must! And the corporate policies of the Coca-Cola Company reflect our commitment to employ substantial technological, financial and human resources as a responsible corporate citizen.

In setting our policy and stating our commitment, Coca-Cola accepts a dual responsibility.

We acknowledge and accept the responsibility for having been a limited contributor to the problems of pollution in the past. But, at the same time, the company accepts the responsibility to set its own house in order.

As you know, we manufacture syrups which our bottlers mix with water to make soft drinks. Water — good, clean, potable, unpolluted water: It's vital to the operation of our business.

For almost half a century, we've been studying the water in this country and in the 135 other countries where our products are sold. We know what's happening to water. That's why it's standard practice for Coca-Cola bottling plants to filter water before it's

mixed with syrup and bottled or canned. So we're not entirely altruistic in our approach to the preservation of our environment. We freely admit that the profit motive and the desire to remain in business have played a major role in the decision to commit ourselves to the cause of environmental renewal.

Very well, what are we doing to fulfill that commitment? First let's talk about cleaning up our air and water.

The Coca-Cola Company has been involved in its own programs of environmental renewal for a long time now. And over a year ago we began looking for a way to get into the business of pollution control, itself, through merger with a leading firm.

Now, Coca-Cola expects to enter the business of pollution control, itself, through an agreement to merge with The Aqua-Chem Company of Milwaukee. This anticipated merger represents a substantial investment for us — about \$150 million.

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As a result of their leadership and experience in making these generating and heating systems, Aqua-Chem found it a natural progression to the fume-free incinerator. Like their generating systems, this unusual incinerator gives off no smoke, no fumes and no odors.

There's an experimental unit on test in one of our midwestern cities right now. And, assuming this test proves successful, Aqua-Chem may be on the way to offering a large, commercial incinerator that will provide both pollution-free disposal and a source of energy by the intense heat that's generated during the total combustion process.

In addition to these advances in pollution control, Aqua-Chem is also a leader in the development and production of water desalination and purification equipment.

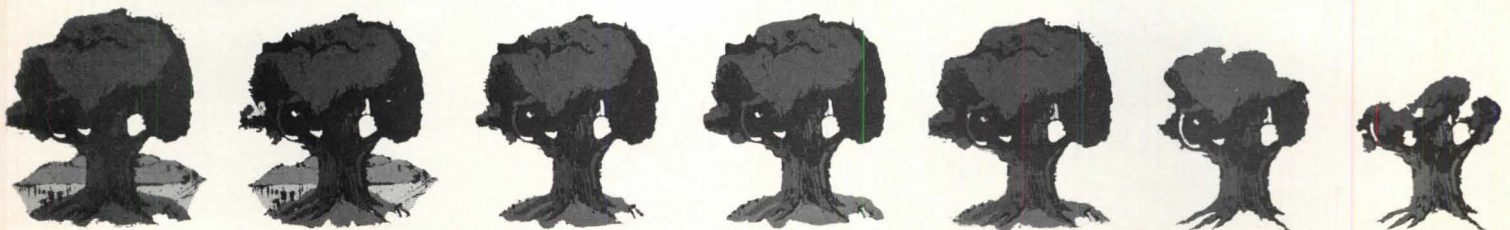
Just recently a true breakthrough was made by the company. It's the discovery of a new application for a process called "reverse osmosis." This special application is still in the developmental stage.

But, with this revolutionary process — which may take Aqua-Chem into a whole new area of its basic business — the company should be able to produce economical water purification devices for both industrial and consumer applications.

There may be a small, compact model for the kitchen of the home, as well as huge commercial water purification systems which employ high-pressure pumps to deliver thousands of gallons of clear, pharmaceutically clean water a day.

It is possible for industry to clean its waste

continued on page 102



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water, not only efficiently and inexpensively but even at a profit.

One test installation is in a Wisconsin paper mill where, as you can imagine, the effluent from manufacturing is highly polluted. But, by purifying this effluent, the mill is able to recapture chemicals used in the making of paper. It costs the mill \$100 a day to operate the water purification plant, but they recoup \$500 a day in reusable chemicals. Instead of dumping syrupy, brown water into a nearby river and, eventually, into Lake Michigan, the mill is now discharging water so pure that you can drink it.

When you introduce profits into pollution control, you radically change the environmental equation.

Most legislatures and the Congress have shown a degree of leniency in dealing with polluters up to now. But I don't think any of us doubts that stronger legislation is bound to come. And, if industry can both conform to the requirements of new laws and earn a profit in the bargain, it would seem to be just good business to anticipate these changes.

In fact, with profit incentives to clean up their industrial effluents, it may well become indefensible for companies to corrupt their environments.

We're also in the coffee, tea, orange juice and food business through our divisions.

And recently we completed a comprehensive study of all our operations in the US to determine where and how we were contributing to pollution — of any kind. This study, by the way, was initiated by the company over two years ago.

Our foods division produces citrus products — orange juice and others — along with coffee. And our study showed that, in our coffee roasting plants, there is some smoke and odor being generated. We're going to eliminate these entirely.

In our citrus operations in Florida, we found that so-called "weak wastes" from washing down our equipment was a potential problem. So we've asked one of Aqua-Chem's top engineers to study the situation and find a way for us to use some of their technology to clean up the problem.

In our coffee operations, we even use the "spent" coffee grounds as fuel to generate heat and power for the plant. And we use afterburners for total combustion of the gasses coming off the roasting ovens.

But once we've extracted the tea from our tea leaves, we dispose of them in a private, sanitary land fill. This is the proper and recommended way to do it, but we think there may be a way to liberate nutritive values from the "spent" leaves. If there is, we may be able to come up with a new component for cattle feed.

In our domestic soft drink division, Coca-Cola USA, we find that virtually the only effluent from our operations is in the airborne exhausts of our trucks and other vehicles.

At this moment, over 90 percent of all our company-owned bottling plants are recycling both glass and paper waste material. Paper, of course, is used in the cartons, can wraps and other packaging that surrounds our glass and cans in shipment and on dealers' shelves. Ninety percent of our own plants are returning glass and paper to manufacturers for reuse.

Ninety-five percent of the bottling plants owned by the company are recycling the old crankcase oil that's drained from our trucks. The oil, too, is returned to the manufacturer — the refining company — for purification and reuse.

Soft drinks are packaged in several types of containers: returnable and one-way glass bottles and in cans made of various materials. And, because the glass, aluminum and steel used in our containers are rather sturdy materials, and because the brightly colored decoration on a can or the unique shape of our bottle doesn't deteriorate as readily as paper containers, the packaging for our products is highly visible.

As a result, we're criticized more than many other manufacturers. But there's evidence, from a recent survey of the roadside debris in 29 states, that soft drink containers account for only about 5 percent of the total highway litter. This study, conducted by the Highway Research Board, the National Research Council and the National Academy of Sciences, disclosed that only 3 percent of the litter was comprised of soft drink cans and only 2 percent was soft drink bottles.

Back in the mid-60's, when it became clear that consumers would demand more and more convenience, and that nonreturnable, "convenience" packaging would become an increasingly large part of our total market, we began an intensive program to study the problem of litter and what we could do to help minimize our contribution to that increasingly evident problem.

In 1966 we assigned a senior executive of Coca-Cola to learn more about litter and to formulate ways we could help hold it in check.

We've learned that litter probably won't be reduced appreciably until the consumer has a greater awareness of the problem and his part in it.

Here are two specific examples of this effort to inform and motivate the consumer.

First, can manufacturers are right now underwriting a sizable retooling expense which will result in the tops of all our cans being embossed with the message, "Please don't litter — dispose of properly."

And what of one-way bottles? The company has created special advertising for several parts of the country which seeks to promote the sale of returnable bottles. The thrust of this special advertising asks the question, "Wouldn't you rather borrow our bottle than buy it?"

We're also trying still another approach to the disposal of one-way bottles. This involves a special grinding apparatus which we recently had made for use in conducting an unusual test.

This test is already underway with a unique device which grinds up glass containers. Two of these units are in place at a supermarket in one of Atlanta's large shopping centers. Consumers bring their one-way glass containers with them when they come to shop. These containers will be ground up by the machines.

The ultimate?

Sand. It isn't quite fine enough, or highly polished enough, to be used in playgrounds yet. But we're working on improvements to the process which may eventually enable us to make safe, inexpensive playground sand out of bottles.

Meanwhile, this material has several other applications. One is the manufacture of asphalt. It's a perfect matrix material. It's cheap, reasonably consistent in size and can be produced in plentiful quantities. Roads made from old bottles? It's more than just possible.

So you see, we are working at it. But no company, no matter how large or influential, can do more than share in this task. And we're glad to see other responsible companies joining us in this effort.

But, more than just the corporations of this country, each of us, as individuals, must commit himself and actively get involved in the massive job that's ahead.

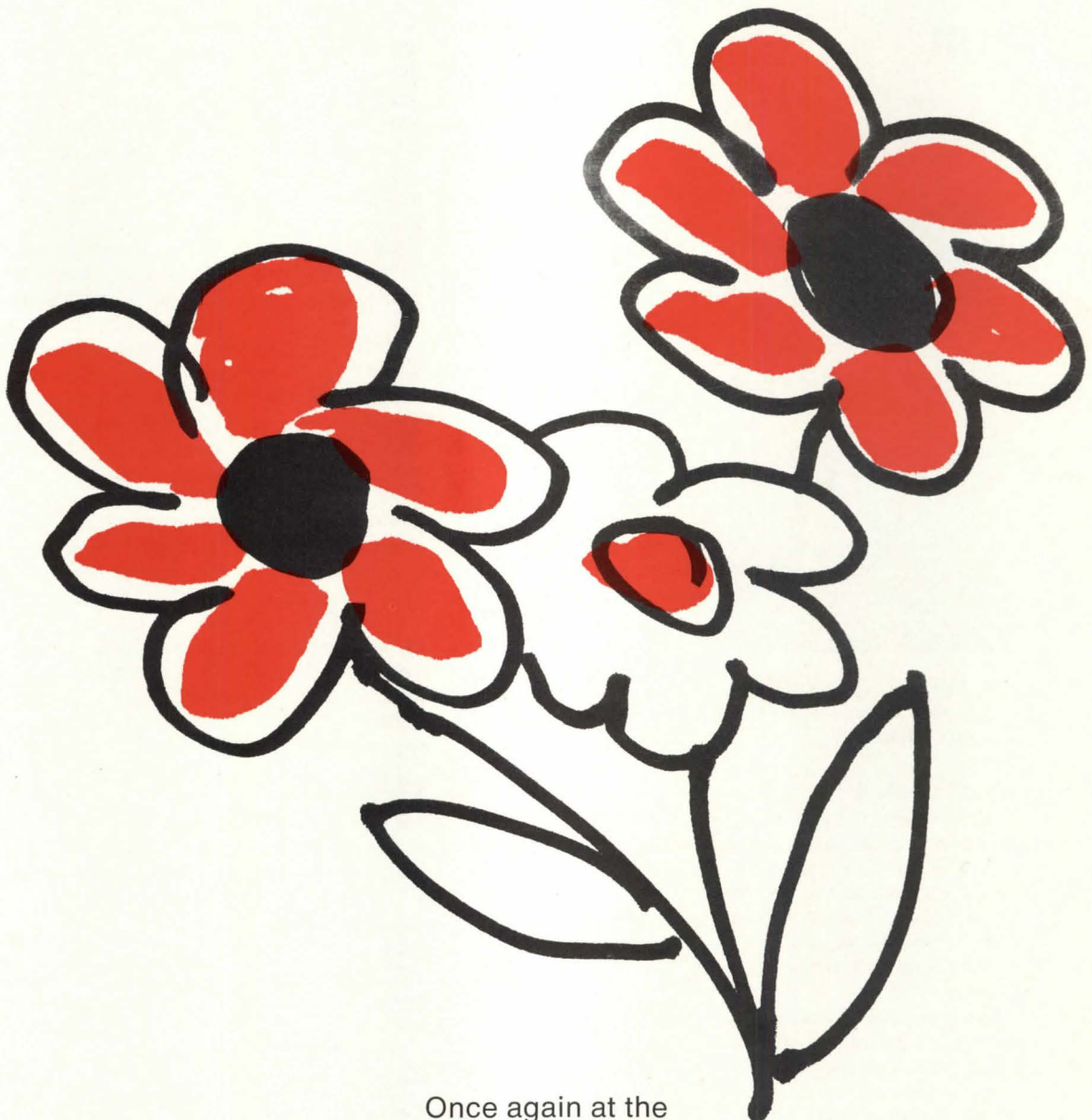
There is no political spectrum here, no color line, no generation gap, no public-private sector conflict, no urban-rural clash, no "haves" and "have nots", no doves or hawks in this issue. We share this fragile issue braided together.

Thus, saving our environment can give us a national purpose. It is the one crisis, the unique challenge, that can knit this nation together again. It can give us a vital national goal; give us all a new sense of purpose, of sharing and of accomplishment.

It is the absolute crisis that demands the total support of young and old, of people and government, of management and labor, of small town and metropolis, of black and white. It knows no politics. The stakes are high, but the rewards are not only the physical survival of the species but also the spiritual renewal of the nation.

We must begin now. We must begin together. There is no place to hide. □





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Preservation Replaced by Retrieval in Boston



How a pragmatic business proposition is injecting new life into one of the largest restoration projects in this country.

Lewis Mumford has remarked that if you want to arrest municipal decay, don't use a bulldozer. Instead, practice what he calls "conservative surgery." Remove the dead urban tissue with as little injury to the rest of the organism as possible and bolster it with a blood transfusion of new economic and social enterprises on a human scale and directed to human needs.

This is just what Boston has embarked upon with its \$10.6 million Quincy Market district historic restoration. This six-acre area is better known to tourists as the Faneuil Hall Markets due to its close proximity to that well-known "cradle of liberty." Boston aims to put new life into the 428,000 square feet of usable and productive urban space. The men responsible for what is currently one of the largest restoration projects underway in the country don't talk about "historic preservation." They call it "urban retrieval" and plan to plug into the 20th century scene an entire section of a city that had, to all intents and purposes, long ceased to be relevant to a mechanized society.

When Mayor Kevin H. White in 1968 announced plans to save the district from extinction, he presented the plan as a pragmatic business proposition. He implied that whoever would be chosen to develop the property would make lots of money and that the city would be willing to arrange for special leases and tax shelters.

Before White's announcement, there had been two years of intensive planning and re-

search. It all began with a telephone call between architect Frederick A. Stahl, AIA, and preservationist Roger S. Webb, who heads Architectural Heritage, Inc., a nonprofit group of consultants. Both men wondered to what extent the Boston Redevelopment Authority was concerned with the seedy market buildings located midway between its two most ambitious undertakings, the \$230 million Government Center and the \$125 million Waterfront Redevelopment Project. They found that BRA was deeply concerned but was without funds or plans and apparently unable to do anything more than arrest the decay overtaking the public areas of the market district.

Stahl, Webb and others then involved Edward J. Logue, BRA's administrator (and now head of New York State's Urban Development Corporation) who supported the idea of private sector involvement and, with the help of then Mayor John F. Collins, quietly commissioned Architectural Heritage and the Society for the Preservation of New England Antiquities to study the potential for private redevelopment of property owned jointly by the city and the BRA. Funds were provided to complete a massive five-volume study.

Partisan politics could not withstand the impetus of the projected plan. Early in 1968, Kevin White, Collins' successor, and BRA's administrator, Hale Champion, managed to obtain grants from the Department of Housing and Urban Development totaling \$2.2 million, closing the gap between the appraised value of a restored, rentable market complex (\$8.5 million) and the estimated restoration cost (\$10.6 million). Soaring construction costs since the study was completed may force the planners to add \$1.9 million.

There is no intention to make a museum out of the Quincy Market district. The aim is to keep an active relationship between the

buildings of the past and the community's functioning present. About the project, Stahl says, "It will again prove that urban retrieval and commercial development can coexist — at a profit."

James Howland Ballou, AIA, a recognized specialist in historic restoration, has been named project architect. His deputy is Roger Philip Lang who assumes the post of project manager. Both are with Stahl/Bennett, Inc. They will head a task force of 12 and will serve as liaison between the Stahl firm, the BRA and Architectural Heritage, Inc., which in conjunction with Stahl is programming the restoration of the district.

The architects are going back 146 years to the original work by Alexander Parris (1780-1852). The 535-foot-long, two-story granite Greek Revival market house is intact, the two flanking rows of granite-faced, slate-roofed four-story buildings are not. Says Lang, "The warehouse block concept is ideally adaptable to a great many contemporary uses without disfiguring history or ignoring basic tenant needs. The adjacent building units function like a horizontal skyscraper. Parris has made our job really quite simple." A diverse area is envisioned composed of retail, office and residential tenants. Automobiles will be banished. Though it falls outside of the legal purview of the planners, Faneuil Hall is the crown jewel, the magnet which will draw a brisk pedestrian traffic.

Exterior construction work has begun. Construction of interiors will start early in 1971 for mid-1973 occupancy. The BRA is to select the developer on the basis of submissions to be received this fall. The developer will then enter into a simultaneous net lease for a 40- to 60-year period. Once completed, the project will pay the city an established annual minimum tax payment (in lieu of real estate taxes) plus a percentage of the developer's profits. □



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Creating the Human Environment: A Report of The American Institute of Architects. Gerald M. McCue, William R. Ewald Jr. and the Midwest Research Institute. Urbana: University of Illinois Press, 1970. 380 pp. \$15.

This report, prepared for The American Institute of Architects' Committee for the Future of the Profession, belongs to the rapidly growing library of futures-oriented literature but is no ordinary volume in it. This work is unique. An exploration of the future of architecture, it is at the same time the endeavor of a profession to forecast its future.

It is not only fashionable but perfectly respectable to talk about the future. A large number of first rate minds, beginning with H. G. Wells and marked in the recent past by the work of Bertrand de Jouvenal, have begun to build a new science. Technological forecasting has become an acceptable aspect of both business and government. The President of the United States has assembled a futures-oriented organization to work with the policy making process of the nation. In light of all this activity, it is interesting that the AIA should be the first professional institution to explore seriously the future from the point of view of the changes which will be caused in the practices of the profession.

The book considers three aspects of the future from an architectural perspective. Part 1 is entitled "Reconnaissance of the Future" and is written by William R. Ewald Jr., a member of the futurist movement. Ewald states that "this study is . . . an attempt to understand what is most valid, most likely, most overlooked, and of most concern about the future to those who will design and build it."

It is appropriate that Ewald should have written this essay. In the past several years, he has edited three volumes of studies carried out by the American Institute of Planners on "The Next Fifty Years." These studies were concerned with the environment and explored the future from the point of view of the AIP. The purpose of these studies, however, was not so much to forecast the place of the planning profession in the future as it was to anticipate the problems planners will face. The AIP studies differ significantly from the AIA essays in that the AIA aims at appraising the role of architecture and architects.

Ewald works from two perspectives which he describes as the microcosmic and the macrocosmic. He uses two time frames, from 1970 to 1985 and from 1985 to the year 2000. The technique is largely that of projecting present trends which leads to a considerable concentration on what he calls "the national community" and describes as "the most significant dimension of the future." Inevitably, this emphasis will expand the role of Washington in the future.



He finds four alternative paths to the future: revolution, reason, response and reaction. The paths represent four different perspectives and four different age levels. Ewald traces the courses of these paths into the future and suggests where they will lead in 1985 and in 2000.

His section on the surprises to be expected in the future, or what he calls "systems breaks," is excellent. A systems break "is a radical change unexpected even by the experts." Ewald emphasizes the importance of anticipating such unexpected events and explores some of the possible systems breaks in the future. At this point in his essay, he argues for the possibility of anticipating the future and suggests ways in which information can be used to do so.

The author anticipates that the American economy will expand constantly in the future, furnishing foundations for new dimensions in development. It is to be anticipated that the gross national product will increase incrementally and that income per capita will increase, and indeed there will be an inevitable intensification of the development of the economy of the country.

The central concern confronting the US in the future is to be the human environment and the quality of it. Ewald suggests some inventions which can have an important impact upon the quality of the human environment, such as telecommunications, transportation, housing, waste disposal and tunneling. While the essay has continuous references to technology and its impact upon the human environment, it emphasizes that the concern is with the "future human environment and not in the future technological environment." He argues aggressively for the freedom of man to determine his destiny.

Ewald has confidence in the civic dialogue and democratic participation in the political process. He argues for the role of the individual in the policy planning process; he has confidence in man's capacity to invent the future as he wishes it.

A set of 11 projections is appended to the essay. These projections are based upon present trends looking back to 1955 and focusing upon two time frames for the future, 1985 and 2000. They deal with population, gross national product, desirable personal income, new construction expenditures, new private housing starts, etc. The projections will permit a considerable amount of forecasting to be done by future-oriented readers.

Ewald's essay into the future is a fine one. He has established an empirical base and built a speculative structure of importance to individuals interested in the American future. In addition, he has added a futures-oriented bibliography which mentions a number of useful volumes and periodicals. It is evident from the reading list that Ewald has the qualifications for his journey into the future.

Part 2, entitled a "Reconnaissance of the Building Industry," was prepared by the Midwest Research Institute. The introduction states that "this commentary on the building industry brings together a mass of data on the way the physical environment is now shaped and attempts to project current trends ahead, in context, to the end of the century." In a way, MRI has a simpler task than Ewald, for technological forecasting is somewhat safer than projecting social trends. Here the emphasis is upon the next 15 years. After 1985, even technological forecasting finds difficulty. The MRI study suggests the future is not inevitable but can be invented by imaginative men, thus taking the position of Ewald upon the ability of America to determine its destiny.

An evaluation of the building industry suggests that it does not possess the productive capacity to build the other America needed by the end of the century, neither does it have the capacity to produce a better America with an environment of quality. Clearly, then, there have to be modifications in the building industry and the essay explores the necessary changes.

The study sees "three strategic and cumulative trends which will speed the rate of change . . . in the building industry." These trends or tendencies take shape in the following forces: science and technology, which will influence management and methods of the building industry; coordination between the public and private sectors, or between government and the industry; and the appearance in the future of large-scale clients and large-scale builders. It is believed these "three sets of forces can produce a radically different building industry in 10 to 20 years."

Like Ewald's essay, the report from MRI emphasizes the role of national public policy, stating that "the process of public policy formation is likely to set the time table" of any changes to take place in the building industry. The report considers the probabilities for new construction from 1970 to 2000, a speculation constructed upon the projection of trends in the traditional fashion.

A conjecture on financing finds little in the future to encourage the building industry. It suggests that inflation is locked into the American system and that government will become more heavily involved in the industry. The "mega-builder" is looked upon as

continued on page 108

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"the central figure on the construction scene over the next 30 years." The large, well-capitalized, computer-managed corporation with a range of investment interests is to be the central force for future building.

In speculating upon the changes and implications of changes confronting construction technology, the report points out that an average period for acceptance of a construction innovation is 17 years. At this same rate, inventions today will not be used before 1985. In this connection, there is a provocative projection on construction materials and the impact of these materials upon design, construction and management with the time periods of maximum influence proposed.

Altogether, the report by MRI on the building industry is a satisfactory exercise in technological forecasting and sums up well the changes, issues and uncertainties that lie ahead for the architectural profession.

Part 3 was written by Gerald McCue who served as chairman of the AIA Committee for the Future of the Profession. The introduction states that "the committee concludes that a precise description of the future of the profession is neither possible nor desirable." The essay reveals a reluctance to take a stand on the future of the profession; rather it is a response to the conditions confronted in Parts 1 and 2. Perhaps the timidity stems from an inability to anticipate all the variables of the next 15 years, let alone 30.

Mention is made of the search for a conceptual model which would afford a methodology for relating the vast number of variables to be considered in conjecturing upon the future. Later, this model is described as representing "the [architectural] profession as the interface between bodies of knowledge of the field and the problem areas of society." Architecture and architects are considered to be a system for the delivery of services.

With this model in mind, the essay responds to a number of the developments described for the future found in "reconnaisances" by Ewald and by MRI. These responses provide imaginative insights into the future of the architectural profession as it confronts conditions in two time spans, 1970 to 1985 and 1985 to 2000. In speculating on possible systems breaks which could cause a major revolution in the building industry, it is suggested that social crises may cause major government involvement in the building industry.

Emphasis is placed upon the tremendous changes that will transpire in the role of architecture and the architectural profession to the new building processes. Multidisciplined men will be needed by multidisciplinary firms who deal with comprehensive building projects. It is questionable whether the architectural schools can turn out a product possessing the range of roles required in the future, and a revision of the definition of a professional architect is recommended.

Finally, there is a significant series of recommendations to the architect and to the AIA. Emphasis is upon a program of continuing education to prepare an architect for performance in a society of constant change. Certainly, the essay by the AIA committee is a frank and full appraisal of the future of the profession in an age of accelerated change. Rarely has a profession been so willing to subject itself to such searching self-scrutiny.

The AIA is to be commended for commissioning a systematic study of the future and the impact of future developments for the profession. Ewald has written an excellent essay, MRI has turned out a careful technological forecast of the building industry and the AIA committee has conducted an exciting exploration into the future of the profession. The three essays fit together perfectly. These anticipations of the future of architecture are an important contribution to the country.

This is a book for all architects and all aficionados of architecture — as well as futurists. These essays into the future provide prototypes possible for all the major professions to follow.

JOHN OSMAN

The reviewer is a senior fellow of the Brookings Institution and staff director of the urban policy conferences of the advanced study program.

Light, Color and Environment. Faber Birren. New York: Van Nostrand Reinhold, 1969. 131 pp. \$19.95.

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continued on page 110

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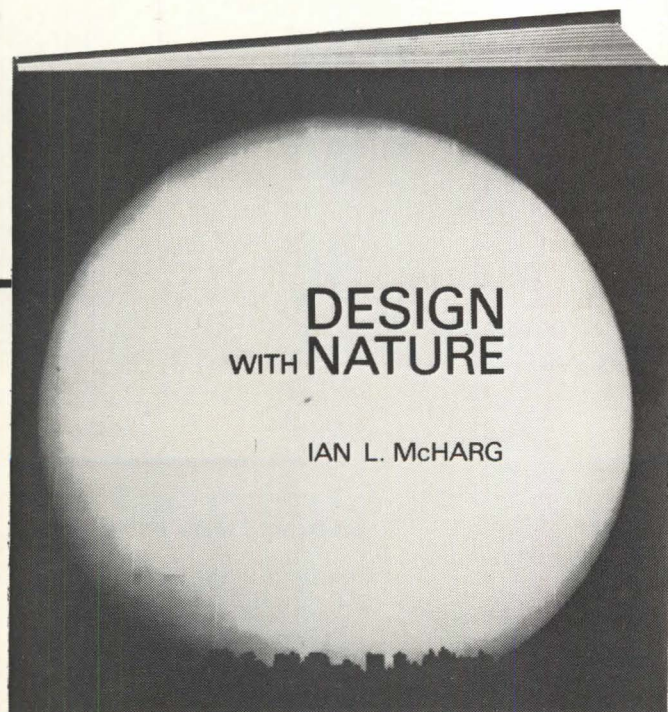
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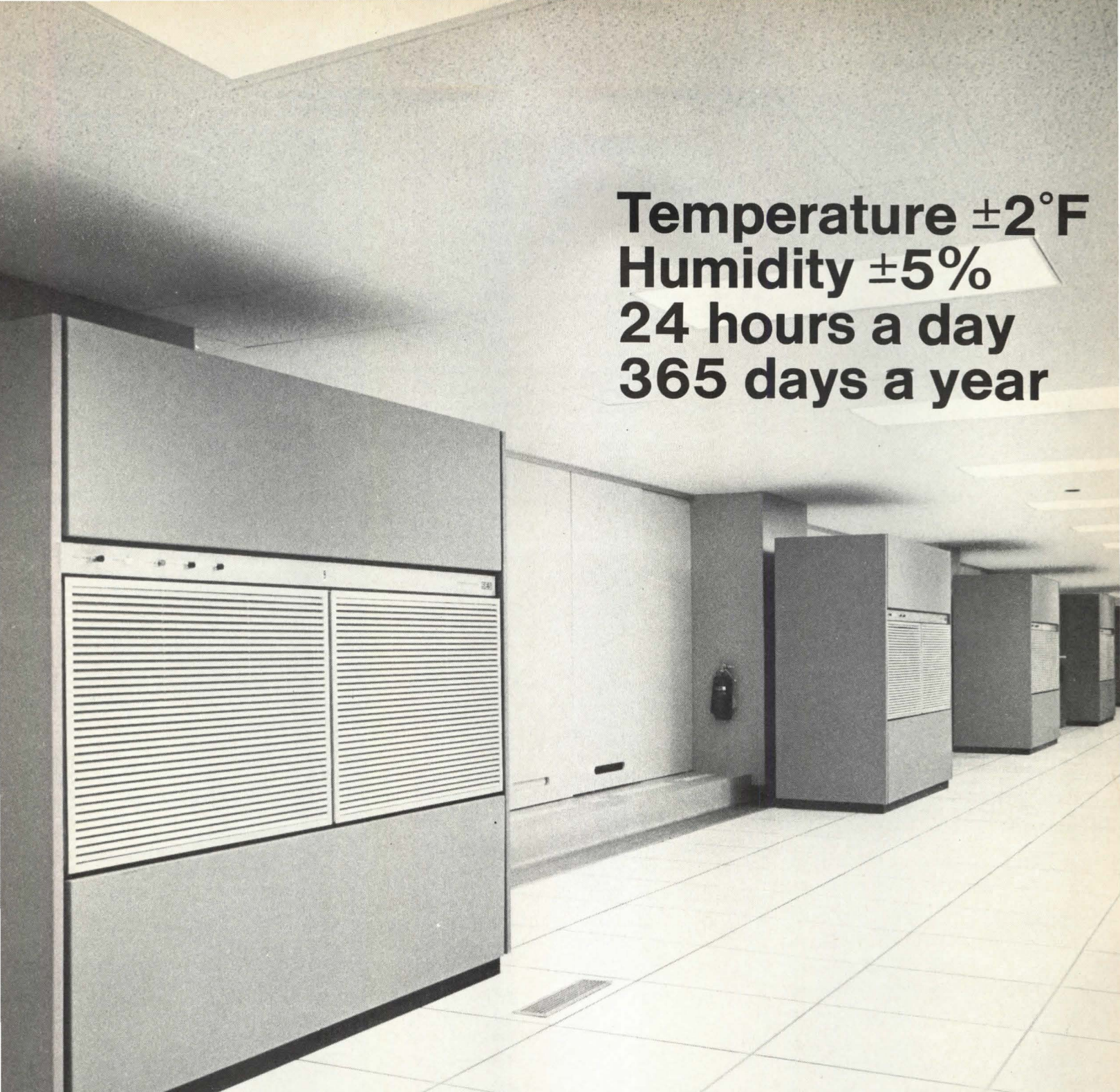
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torical uses of color and on the authentic colors of period styles.

Interiors Second Book of Offices. Edited by John Pile. New York: Whitney Library of Design, 1969. 272 pp. \$19.95.

A cross section of excellence in current office design.

The Architecture of Mexico Yesterday and Today. Hans Beacham. New York: Architectural Book Publishing Co., 1969. 254 pp. \$12.95.

The photographs and drawings in this book have been selected to show the "unity-in-diversity" of Mexican architecture. Old and new are blended in a marvelous harmony. Beacham's comments are terse but adequate.

Fountains and Springs. Ernst-Erik Pfannschmidt. New York: Universe Books, 1969. 208 pp. \$15.

The gamut of fountains from the fourteenth century fountain in the Court of the Lions of the Alhambra to Liverpool's beautiful kinetic fountain in the city center sculpted by Richard Huws in 1967. A picture book of water sculpture to inspire us.

Towns and Buildings, Described in Drawings and Words. Steen Eiler Rasmussen. Cambridge: MIT Press, 1969. 203 pp. \$2.95.

Although 20 years old by now, this book is still relevant. If you are going to visit Rome, London, Paris or Copenhagen any time soon, this is excellent background reading. Better still, it will be enjoyed upon your return from these cities.

Shinkenchiu Detail Collection: Houses. Editorial staff of *The Japan Architect*. Tokyo: Shinkenchiu-Sha Co., 1969. 176 pp. \$13.20.

Photographs and plans for more than 50 modern Japanese houses, as well as detailed drawings of each residence's distinctive features.

New Danish Architecture. Tobias Faber. New York: Praeger, 1968. 219 pp. \$17.50.

A background and evaluation of postwar Danish architects and architecture.

Cure for Chaos: Fresh Solutions to Social Problems through the Systems Approach. Simon Ramo. New York: David McKay, 1969. 116 pp. \$3.95.

The author contends we can make better decisions regarding all social engineering problems of our technological age through the systems approach.

The Systems Approach. C. West Churchman. New York: Delacorte Press, 1968. 243 pp. \$7.50.

An excellent evaluation of systems analysis and its application to the problems of contemporary society.

People and Plans: Essays on Urban Problems and Solutions. Herbert J. Gans. New York: Basic Books, 1968. 395 pp. \$10.

City problems critically examined with some thoughtful solutions set forth.

Neighborhood Conservation & Property Rehabilitation: A Bibliography. Library, US Department of Housing and Urban Development. Washington: US Government Printing Office, 1969. 78 pp. 70c.

Most of the materials in this well organized bibliography were published after 1965; however, some older significant works are included.

Palaces of the People: A Social History of Commercial Hospitality. Arthur White. New York: Taplinger, 1970. 180 pp. \$5.50.

An entertaining account of the modern luxury hotel, surveying the growth of paid hospitality in such places as Rome, England and the United States.

Windows and Environment. Pilkington Environmental Advisory Service. Newton-le-Willows, Eng.: McCorquodale, 1969. 204 pp. 6 pounds, 6 shillings.

The authorship of this book is a team effort by the Environmental Advisory Service of Pilkington Brothers, British glass manufacturers. It is a study of those factors required in the design of windows to achieve optimum standards of comfort for building occupants.

Public Works: A Dangerous Trade. Robert Moses. New York: McGraw-Hill, 1970. 952 pp. \$14.50.

A record of events in which Moses played a role, told in his own way, but including documentary testimony of others.

Motorways in London: Report of a Working Party Led by J. Michael Thomson. Beverly Hills, Calif.: Sage Publications, \$1969. 194 pp. \$7.50.

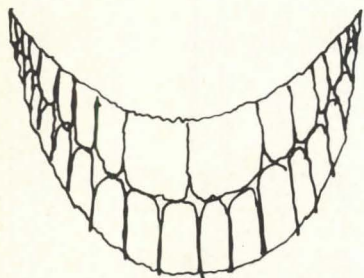
Controversy rages everywhere over urban freeways. The highly complex problem of London's network of motorways is dealt with in this report by a working party of experienced transportation experts. Lessons are suggested for large cities everywhere.

Redes y Ritmos Espaciales. Rafael Leoz. Madrid: Editorial Blume, 1969. 358 pp. \$32.

The English translation of this Spanish work's title is *Space Networks and Rhythms*. Leoz contends that the problem of housing cannot be dealt with by using traditional architectural techniques. He introduces fresh ideas about how architecture can use industrialized construction as an efficient tool to cut costs. He is concerned with the raw materials of architectonic space and presents technical details of elementary modules to be used for maximum efficiency and economy.

Codes and Code Administration: An Introduction to Building Regulations in the United States. Richard L. Sanderson. Chicago: Building Officials Conference of America, 1969. 241 pp. \$7.95.

This book, in preparation since 1965, covers the use of codes, code enforcement and the administration of building regulations. Written as a textbook, it is intended also "to open the eyes of those myopic building officials who have failed to recognize that the real problems of code enforcement are people problems that cannot be solved with trowels, saws or slide rules." □



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


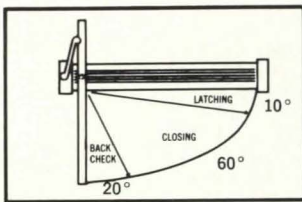
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letters

Carl Koch Receives an Invitation

I have just read Carl Koch's stimulating and constructive article in the February AIA JOURNAL.

Two colleagues and I are teaching fifth-year architectural design to a group of 80 students here at Cal Poly. We have taken a systematic design methods approach to the year as a whole. Within this approach, each of 10 groups have selected, defined and programmed their own year-long group problems and are now in the design phase. Naturally, several groups centered their projects around industrialized building systems.

It has been interesting to observe that as each group has become knowledgeable about building systems, it has moved away from its initial objective of designing one more to add to the proliferating body of systems designs that already have appeared here and in Britain, and toward the application of industrialized systems to real problems. Indeed, one group has changed its plan from the design of "just another system" to a year-long study of the implementation of industrialized building in our society.

We will continue this approach in our future fifth-year design classes. I feel that some of our future design groups might well be interested in design within the Techcrete system. Would it be possible to obtain sufficient data on the system to allow it to be used as the basis for such projects? The scope of problems that might use such an approach could range from very specific, technical, small scale designs to large-scale urban planning projects.

There is an additional possibility that might merit future exploration. We have a large, beautiful canyon at our disposal for student construction projects. Several have been carried out, or are in various stages of completion. It might be worthwhile to base such a design and construction project on Techcrete. This is a doubly interesting prospect to us as a possible solution to our recurring problem of housing visiting critics in convenient and pleasant quarters.

We invite Mr. Koch to visit us, offering him the astounding number of 1,450 receptive undergraduate minds in architecture, architectural engineering and planning.

DONALD P. GRANT
Associate Professor
School of Architecture
California State Polytechnic College
San Luis Obispo

The Architect and Society's Problems

Regarding the issue raised by the \$15 million question, I wonder if we are not too quick to leap to a posture of guilt? It would not be surprising, as it is symptomatic of the times.

Hugh M. Zimmers, in his article on the

subject in the February issue, presents an opportunity for investigation which I believe should be followed with some immediacy. It is suggested that the cash route, via assessment or the like, is unacceptable and "that it is results we are after, not money. This objective . . . puts the responsibility on the Institute's membership to support programs that will accomplish something." I agree. Who can disagree?

What would be enlightening and would truly reveal the present magnitude of the architect's concern is some review of our present involvement. Just how many hours do we now spend involved in community design centers — on commissions and boards which support and direct these operations — in free time happily given to educational institutions as lecturers or critics or jurors? How many of us have taken the time to serve up ideas and programs through any number of existing organizations either on our own or when asked? How many offices have done work for nonprofit organizations at a less than cost fee or no fee at all?

I would reckon from knowledge of my own community that commitments of this sort constitute a sizeable investment of the architect's energy and willingness to contribute solutions to our society's problems.

I make haste, however, to add that this should not be viewed as an attempted apology. Though I suspect the involvement is great, I also suspect that it is not enough. The problems are so enormous and so pressing! But wouldn't it be refreshing to know where we stand — what we have done — and perhaps be able to proceed without a sense of shame of not having given? Of course, maybe we are fearful of uncovering the real facts of our past performance. I believe that fear to be unwarranted.

SEYMOUR AUERBACH, AIA
Riverdale, Md.

Land Assembly Versus Instant Housing

Michael A. Stegman's article "The Myth of the Slumlord" in March is an excellent reminder for us to look at the housing and urban renewal problems from more than one angle. If the milking of slum houses were still as profitable as it once might have been, landlords would not simply walk away from their properties and abandon them. I quite agree with Mr. Stegman that it would make little sense to turn over slum properties to the tenants for ownership on either a private, cooperative or condominium basis. I might add that it would be naive to assume that the tenants, by the stroke of a pen, would become experts on property management and maintenance. On the other hand, supporting the landlords, as Mr. Stegman suggests, is only a partial solution, it would amount to considerable and ever-increasing

expense and it would not greatly alleviate the dismal situation in our city centers. Besides, I doubt if the landlords themselves would welcome such a step.

Why not look at the bright side of the situation, if there is one? By now, most slum properties have probably been paid for, and some more than once. The slumlord, unless he was foolish enough to buy into the business lately, has gained a good return on his investment and has taken his money elsewhere when things began to get tough. By sheer momentum the deterioration will get worse and will spread over yet larger areas. More landlords will get disgusted and give up. As market values continue to drop, slumlords will be tempted to sell at most any price.

The situation is excellent for a new attack on the problem by the government and/or semiprivate corporations. Never have our public bodies had a better chance to pick up choice downtown properties for a song and assemble large tracts of land for a new and different kind of urban renewal. The longer they wait, the cheaper the price. What an opportunity for the building of integrated neighborhoods by attracting whites from the suburbs to the city! No displacement of families need be feared, since densities in the areas affected are relatively low and can easily be raised. The school integration problem would disappear.

Let's not spoil this opportunity by selling properties to individual tenants now, thus fragmentizing land ownership even more than it is already. Land is the key question to the solution of our city problems. Land assembly right now is more important than "instant" housing. For once, time is on our side. But for the sake of everyone, let's not wait too long!

BERNARD WAGNER, AIA
Washington, D. C.

Suggested Reading for Students

What a great story Mr. Wegg wrote in the February issue about FLW and his encounter with Washington. It should be printed for all architectural students so that they may read how Representative McCormack stopped FLW's design purely because the architect was not from his own state! The scheme was patterned after the Ardmore Experiment, and would have been standing as a monument today.

EDGAR TAFEL, AIA
New York City

A Layman Asks Some Questions

Within the course of a busy week, an individual may betake himself to a department store, church, professional office, movie, bank, restaurant, library, supermarket; and he may ride in a bus or on a train. In almost every instance, he may find these cubicle structures too warm and humid on a cool day and too cool and dry on a warm day. His only defense is to so equip himself so as to try to accommodate by adding or subtracting an item of clothing in an uncomfortable atmosphere indoors regardless of the nature of the weather outdoors.

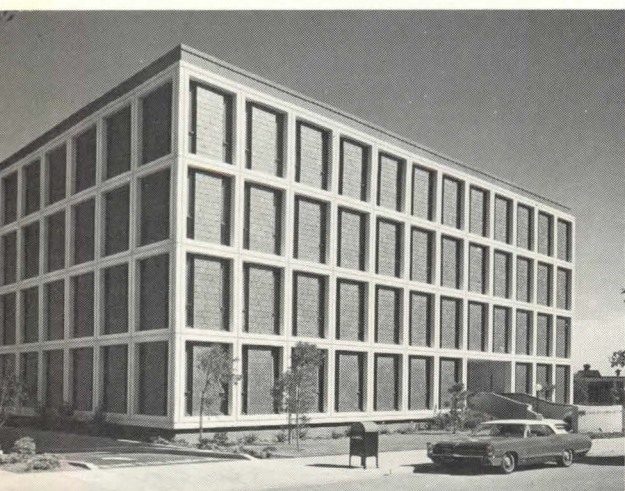
In almost any enclosure in which one wishes to sit, to watch, to listen or to read,

continued on page 116



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letters from page 114

the air should not be chilled to a degree suitable only for the possible comfort of the comparative few comprising the employees who may have occasion to move about energetically. Likewise, in cold weather the air indoors should not allow employees to go about their work in shirtsleeves while customers and visitors have not only to shed the topcoat but also want to remove the jacket during a prolonged stay.

Usually, upon passing through an entrance door, one will be bombarded by a concentrated but invisible shower of shocking chill or of superheat. After all these years, it should be possible to adjust airconditioning automatically to norms. When it may be 85 degrees and humid outdoors, a temperature but a very few degrees lower indoors is quite welcome relief. Instead, one most frequently encounters a dry chilling condition with a reading about 70 degrees. Similarly, upon coming indoors on a cold day, it is neither desirable nor necessary that rooms and auditoriums be maintained 80 degrees and moist.

Now, a few observations about libraries. In my retirement traveling, I rejoice over each library I can locate. The newer ones are better planned, have superior lighting, are more quiet and some are beautiful. All have the unsolved problem of treating the air in which we sit, almost motionless, during prolonged visits for reading and studying.

Architects seem to have bypassed the problem of providing against theft in libraries. As a consequence, it is necessary to make separate application at the main desk and sign for each of any of countless periodicals which one should expect to find displayed on the open racks. Honest patrons are further penalized by the unavailability of many desirable books because these have been taken from the building dishonestly.

I have seen libraries so designed that there is but one entrance/exit service doorway. The monumental new edifice in my present area has three, but with personnel for only one. Honest visitors should not feel offended by having to pass through a turnstile in-and-out, and the obligation to leave shopping bags, brief cases and other large containers in a checkroom, especially since these impediments are a nuisance within a library.

Taxpayers seem to have but small voice in the architectural design of public buildings. At least the interior of a library should be designed to accommodate the needs and the comfort of the patrons. F. PIERCE SHERRY
Coral Gables, Fla.

Uses of Light and Sculpture

Congratulations to the editors and a big handshake to the author of "The Uses of Light and Light Sources in Design" in the April issue. For a sculptor this problem is acute and all too often enormously intensified by the artist being consulted after lighting arrangements are already contracted.

Please send me 10 reprints. I need to educate some of my artist friends and some of my clients!

UNA HANBURY
Sculptor
Washington, D. C.

events

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Sept. 24-26: New Jersey Society of Architects, Chalfonte-Haddon Hall, Atlantic City

Oct. 14-17: Western Mountain Region, Tucson, Ariz.

Oct. 29-31: Architects Society of Ohio, Stouffer's Cincinnati Inn, Cincinnati

National

June 17-19: National Exposition of Contract Interior Furnishings (NEOCON), Merchandise Mart, Chicago

June 18-20: NCARB Annual Meeting, Sheraton-Boston Hotel, Boston

June 19-21: ACSA Annual Meeting, Sheraton-Plaza Hotel, Boston

June 19-21: Flying Architects Association, Sheraton-Boston Hotel, Boston

June 21-25: AIA Convention, Sheraton-Boston Hotel, Boston (recessed session, London, June 29)

July 6-10: Annual Summer Planning Institute (Flexible Learning Environments), Stanford University, Stanford, Calif.

Sept. 29-Oct. 2: National Environmental Pollution Conference & Exposition, Sheraton Park Hotel, Washington, D.C.

International

June 14-19: International Design Conference (Environment by Design), Aspen, Colo.

June 29-July 24: Ekistics Month (Networks and Human Settlements), Athens Center of Ekistics, Athens

Sept. 13-18: Interamerican Society of Planning, Salvador, Bahia, Brazil

Sept. 13-20: Panamerican Congress of Architects, San Juan, Puerto Rico

Oct. 4-7: National Association of Home Builders International Apartment Conference, Statler Hilton Hotel, Washington, D.C.

Oct. 4-16: International Union of Architects, Public Health Group, Public Health Seminar, Düsseldorf

Dec. 14-18: World Congress of Engineers and Architects, Hilton and Sheraton Hotels, Tel-Aviv

Competitions

Sept. 30: Registrations due, plan for a district on the southern fringes of Vienna. Contact: Magistrat der Stadt Wien, Magistratsabteilung 18, Rathaus A-1082, Vienna, Austria.

Nov. 15: Submissions due, renovation of old town of Karlsruhe and its integration within the town center. Contact: Sekretariat des Wettbewerbs, Rathaus Stadtplanungsamt, 7500 Karlsruhe, Germany.

Tours

Aug. 14-29: Oriental American Symposium on Architecture and Urban Design, including two days at Expo '70, for AIA members only. Contact: Professional Seminar Consultants, Inc., 3194 Lawson Blvd., Oceanside, N.Y. 11572.

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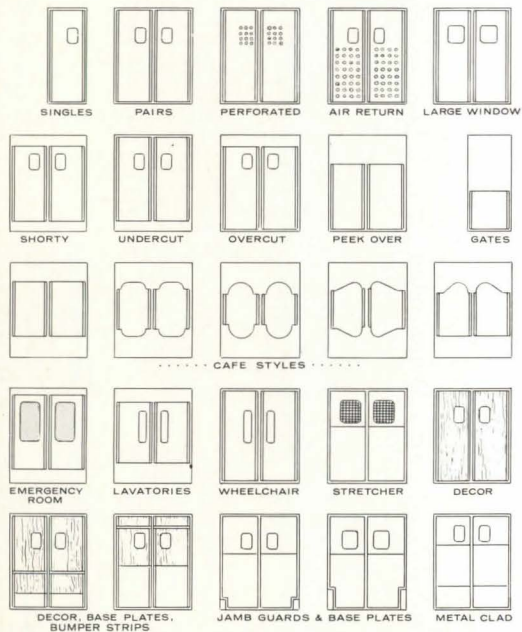


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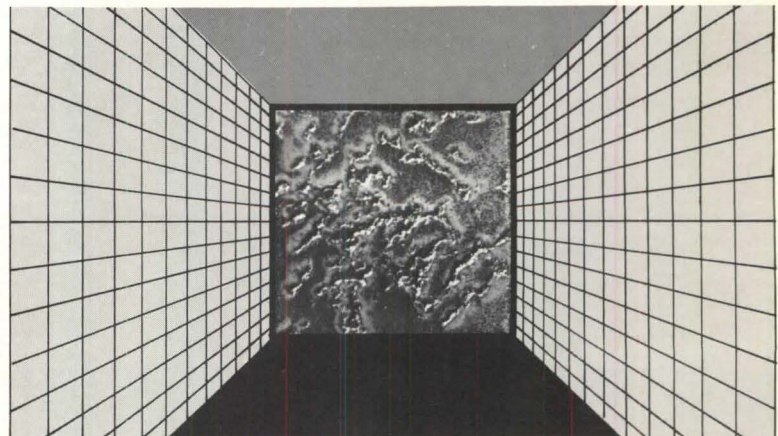
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